

MADRAS INFORMATION

1956

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Industrial Development

By Sri C. G. REDDI, Secretary, Department of Industries, Labour and Co-operation.

The schemes now taken by the Department of Industries and Commerce, Madras, in the First Five-Year Plan were under the following major heads :—

- 1 Industries.
- 2 Cottage Industries.
- 3 Agriculture—Minor Irrigation.

In the Second Five-Year Plan, schemes have been proposed under more major heads like—

- 1 Medium Industries.
- 2 Small scale Industries.
- 3 Cottage Industries and Handicrafts.
- 4 Sericulture.
- 5 Handloom Industry.
- 6 Technical Education.
- 7 Agriculture—Minor Irrigation.

The type of schemes that were taken under each major head and the progress achieved in the First Five-Year Plan and the type of schemes proposed for the Second Five-Year Plan and objectives thereof are briefly follows :—

Industries.

The schemes taken up in the First Five-Year Plan under Industries are mostly of developmental nature, emphasis being laid on the development of the activities of the Department through new schemes as well as through the expansion of the existing activities of the Department in the various branches like Reorganization, Training, Research, Marketing, etc.

Reorganization.—The District set up the Department of Industries and Commerce, Madras, originally consisted only two Assistant Industrial Engineers, their Headquarters being at Jore and Coimbatore and five District Industries Officers with their

Headquarters at Tirunelveli, Madurai, Madras, Vellore and Kozhikode. These officers were assigned with the work of giving assistance to Industries in general and concentrating on the development of various Industries and the Assistant Industrial Engineers, were entrusted with the work relating to pumping and boring operations in their regions. As the Engineering activities of the Department were on a constant increase, the Assistant Industrial Engineers were finding it difficult to exercise proper supervision and control over the vast area and the District Industries Officers could not be of much assistance in the Engineering activities of the Department as most of them did not possess technical qualifications. In the circumstances it was planned to reorganize the District set up of the Department by abolishing the posts of Assistant Industrial Engineers and the District Industries

Officers and to appoint in their places seven Assistant Directors of Industries and Commerce with technical qualifications at the rate of one Assistant Director for every two districts. Accordingly all the seven Assistant Directors have been appointed and they are able to exercise adequate supervision and control in respect of both development of Industries and Engineering activities of this Department.

Training.—Originally the Department of Industries and Commerce was running Government Industrial Schools with a few certificate and Diploma Courses in each school at Madras, Madurai, Mangalore and Kozhikode. As the demand for technically trained personnel was found to be increasing, these Government Industrial Schools were not found adequate to cater to the needs of Industrial and Technical



Shri Sri Prakasa, Governor in Uzbek National dress at the party given to the Uzbek Cultural Delegation by the State Committee on 13th January 1956.

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Education of the various districts in the State. Therefore with a view to solve the problem of the increasing demand for technical education, it was planned to establish five polytechnics on regional basis for providing training in more number of certificate and Diploma Courses. All the five polytechnics have been opened each one at Madras, Madurai, Coimbatore, Mangalore and Kozhikode. These polytechnics provided instructions in more than 22 Diploma Courses and 33 different certificate courses and the demand for technical education has been appreciably met. In fact these polytechnics have proved an asset to the State in providing instructions in technological courses and the rush for admission to these polytechnics has been more than the maximum capacity.

Further the Department has had an educational institution known as the Leather Trade Institute where instruction on a modest scale was provided in leather tanning and leather goods manufacture to the Artisans. The need for the development of the activities of this Institute was keenly felt and accordingly in the First Five-Year Plan, the Institute was reorganized and developed with its name changed as the Institute of Leather Technology and two new courses, viz., Diploma Course in Leather Technology of three years' duration and a certificate course in leather goods manufacture of three years were introduced. The Institute with its development has been able to supply trained personnel to the Tanning and Leather Goods Manufacture Industry and also solve research problems of tanning industry.

With a view to produce more skilled workers to be absorbed in the well drilling branch of the Department a new scheme was taken up under which 50 fresh candidates were selected and trained as Drillers and Assistant Drillers.

Research.—With a view to enabling the private Industrialists and Government Departments to have qualified opinion on the analysis of minerals and other raw materials available in the State, for which there were no facilities available in Madras, it was contemplated to establish a Government sponsored organization in the First Five-Year Plan. Accordingly an institution known as the Chemical Testing and Analytical Laboratory was established. The Laboratory is

rendering very useful service by testing samples and by contributing articles of scientific interest to important journals.

Marketing.—In order to augment the marketing side of the Department, it was planned to effect improvements wherever necessary to the existing commercial concerns run by the Department and the following steps were taken in this direction:—

(a) The Government Industrial Engineering Workshop was provided with up-to-date machinery with the result that the turn over of the Workshop has been increased and it has been able to manufacture Rs. 32,000 worth of boring tools, a year.

(b) Similarly, at the Government Kerala Soap Institute, Kozhikode, certain equipment which had become obsolete and unserviceable by long use were replaced by new and modern ones and this replacement is expected to bring about considerable improvement in the quality of soap manufactured at the Institute.

(c) The Department has had an experimental section at Coonoor for the manufacture of silk worm guts on a small scale. This experimental section was converted into a manufacturing concern so that guts of various varieties may be produced and marketed to Indian Medical Directorate and also to the public and the country's demand for surgical guts be met by this concern. The section is able to produce nearly four lakhs of guts a year and the production is expected to increase further in the years to come.

(d) The Government Silk Filatures, Kollegal, was originally producing only raw silk which was being sold to the dealers and consumers. The consumers who purchased raw silk had to incur further expenditure in twisting the silk and converting it into warp before it was put at the looms. With a view to convert the raw silk into warp at the Government Silk Filatures itself, a few modern silk twisting and winding machines were purchased and installed at the Filatures. With the installation of these plants the Filature has been able to produce about 30,000 lb. of thrown silk a year and it is made available to the Handloom Industry

Further, in addition to improving the existing commercial concerns of

the Department, it was also planned to establish a new commercial concern for the manufacture of vegetable oil and also to provide facilities for training of students and technical personnel in oil technology. This end in view a factory was established with its name as the Government Hydrogenation Factory, Kozhikode with new buildings and equipment. The plant installed the factory is of the capacity of 10 tons of refined oil and 10 tons of Vanaspathi per day. The factory taken a trial run and is at present engaged in refining oil for the Government Oil Factory, Kozhikode. It has not yet gone into commercial production since in view of the difficulties the Vanaspathi factories are facing at present in the production side the prospects of the factory working on profit, or at least without incurring any loss, are remote and the Government are considering the question of leasing it out on reasonable terms.

The Second Five-Year Plan has been so prepared as to provide under head of Medium Industries setting up plants for the production of aluminium, iron, alloy, steels, steel forgings, castings, electrical goods, sulphur, writing and printing paper, porcelain and sanitary ware, alcohol, sawing and seasoning of timber, etc., and also to extend finance to the private sector in the development of various industries of these schemes the Planning Commission for the time being has to approve of two schemes, viz. (1) to set up timber seasoning plant and saw mills and (2) to extend assistance to the private sector in setting up of co-operative factories.

So far as the remaining schemes are concerned some of them are being considered by the Planning Commission on an All-India basis and in case of some of the schemes the Planning Commission is examining as to how best they could be implemented by the private sector.

Small-scale Industries

In G.O. No. 1435, dated 21st April 1955, the Government constituted a committee to formulate schemes for village and small-scale industries for the Second Five-Year Plan.

The recommendations of this Committee have been largely incorporated in the plan. The plan lays special emphasis on industries which will provide employment to a large number of workers, the chief among which are the leather and hand-made match industries. As regards the leather industry, the bulk of the exports from the Madras State at present are in the form of half-tanned leather and the extra income that could be derived by further processing and finishing is lost to the State. With its large production of hides and skins, there is very considerable scope in the State for the development of the leather industry, and the Plan accordingly includes schemes for proper tanning and finishing of leather at three centres and for the manufacture of foot-wear at 26 centres, which will be scattered all over the State.

Matches.—The present production of hand-made matches is 1.6 gross tons per year providing employment to 900 to 1,000 persons for every five lakhs gross. Schemes have been prepared under cottage industries for the establishment of 100 cottage type match industries, each producing 100 gross per day and providing employment for about 50 persons. With a view to supply the raw materials to these as well as for the existing match

factories a scheme has been drawn up for the manufacture of splints and veneers.

Among the various dispersed industries, blacksmithy and carpentry, which cater to the basic needs of the people, have been selected for development. For blacksmithy and carpentry, four model production-cum-training units have been proposed with mobile units attached to each of them.

Other existing industries.—The other existing industries selected for development are: utensils, hand tools, etc., which are now being operated in groups in different places. In these cases, provision has been made for servicing centres for the supply of raw materials at reasonable rates, for undertaking operations requiring costly machinery and for introducing additional and new lines of manufacture.

New Industries.—The new industries proposed are for the manufacture of articles which are in great demand or imported from other places or are in short supply in this State. These industries include electrical goods, sports goods, pressed metal goods, hurricane lanterns, surgical instruments, manufacture of scientific glass apparatus, laboratory and scientific equipment, etc.

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Industrial Estates.—It is proposed to set up two more industrial estates at two important centres besides the two proposed to be set up during the current year. The scheme provides not only for the erection of buildings and the provision of the amenities required, such as water-supply, electricity, etc., but also makes provision for affording facilities to purchase raw materials in bulk and supply them at reasonable rates to the individual units. Another scheme has also been drawn up for the acquisition and development of lands suitable for the location of small industries with a view to their assignment to small-scale industrialists. A sum of Rs. 70.55 lakhs has been set apart for the formation of industrial co-operatives in which the workers themselves would be members and would share in the profits. It is expected that 180 units would start working during the Five year period including units for the production of umbrella ribs, sewing machines, milk substitutes from groundnut, fruit canning, manufacture of shoe-lace, etc., Another sum of Rs. 200 lakhs has been provided for grant of loans under the State Aid (Industries) Act. It is also proposed to subsidize the cost of transmission lines and electricity charges in deserving cases. A provision of Rs. 75 lakhs has been made



The members of the Uzbek Cultural Delegation watching with interest the Bharata Natyam performance given by Srimati Kamala Laxman.

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for the supply of machines on hire-purchase system to small-scale industrialists.

Final List of Schemes proposed for inclusion in the Second Five-Year Plan under Small-scale Industries.

Serial number and name of the Scheme.	Net cost.
1 Establishment of a production unit for splints and veneers required for hand made match industry.	4-26
2 Establishment of three service centres for tanning, finishing and construction of cold storage rooms for preserving the skins and raw hides.	15-00
3 Establishment of 25 training-cum-production units for training 12 artisans in each unit for the manufacture of foot-wear both Indian and Western types using manually operated machine.	25-50
4 Establishment of one production centre for the manufacture of both India and Western types of foot-wear using power operated machine.	4-00
5 Establishment of two model combined carpentry and blacksmithy workshops with mobile units attached to them.	7-76
6 Establishment of two service centres for the utilization of timber rejected in the forests.	5-04
7 Establishment of a service centre for the production of Textile Mills parts.	5-00
8 Establishment of one servicing centre for the production of pressed metal products.	6-50
9 Establishment of one service centre for the manufacture of hand tools.	7-00
10 Establishment of a servicing centre for farm implements and agricultural machineries.	4-94
11 Establishment of a servicing centre for hurricane lanterns.	3-90
12 Establishment of two service centres for brassware industry.	
13 Establishment of a service centre for the manufacture of surgical instruments.	
14 Establishment of a service centre for electrical goods.	
15 Establishment of a service centre for Laboratory and Scientific equipments.	
16 Establishment of one service centre for sports goods.	
17 Establishment of model scientific glass apparatus factory as an adjunct to the existing Government Glass Blowing centre.	
18 Establishment of marketing corporation with five chain stores.	
19 Establishment of a stores purchase section in the Office of the Director of Industries and Commerce, Madras.	
20 Formation of Industrial Co-operatives.	
21 Aid to Private Sector (Loans) under State Aid to Industries Act.	
22 Subsidy over cost of transmission lines and on power rates to small scale industries and allotment of lands.	
23 Supply of machines on hire purchase system to the small-scale Units of the Madras (Private Sector).	
24 Organization of the Office of the State Director of Industries and Commerce.	
25 Requirements of eight Foreign Experts to implement some of the schemes.	
26 Establishment of two industrial Estates and Expansion of the existing Industrial Estate at Madras.	
27 Establishment of three servicing corporations for the Industrial Estates.	

Net cost.

Cottage Industries

The vital role which Cottage Industries must play in the economic regeneration of our country cannot be overstressed. The importance of the industries not only from the point of view of solving the tremendous unemployment and underemployment problem facing the country but also from the necessity in the present context of concentrating on a form of economic activity that would by its very organizational set up and inherent distributive mechanism provide for the disposal of purchasing power in as wide a circle as possible is being increasingly recognized.

The important Cottage Industries of the State are: Handloom Cotton Weaving, Handloom Silk Weaving, Hand Spinning, Cocoon Rearing, Silk Reeling, Handloom Wool Weaving (including manufacture of woolen Cumblies, Rugs and Druggets), Hosiery, manufacture of Cotton Carpets, Cotton and Silk Yarn Dyeing, Dyeing and printing of cloth, tanning of skins and hides, matches, oil pressing, palm and cane gur manufacture, ceramics including pottery and clay modelling, coir and coir goods, palmyra fibre and palmyra products, cane and bamboo work, metal ware including brass, aluminium and bell-metal, art metal work, mats including Korai, Palmyra and date; wood work, smithy, eucalyptus and sandalwood oil, manufacture of toys and dolls, glass bangles and beads, cigars, chewing tobacco, etc. The total number of workers engaged in these industries run into several lakhs and the value of the products turned out to several crores.

Different Cottage Industries and different aspects of cottage industries are now being dealt with in different departments. All work connected with the organization and working of industrial Co-operatives is being handled in the Co-operative Department. The most important cottage industry dealt with by the Co-operative Department is handloom weaving. The Departments of Agriculture and Animal Husbandry are generally in charge of the work relating to the Development of Bee-Keeping, Sheep breeding, dairying, poultry farming, etc., and other allied industries. The promotion and development of cottage industries among women is one of the more important activities of the Women's Welfare Department. All other work relating

to Cottage Industries is tested in the Department of Industries and Commerce with which rests the general responsibility for the development of Industries in the State.

With a view to enlist the co-operation of all non-official elements interested in the development of Cottage Industries, a number of advisory boards and committees have been formed charged with the task of advising Government from time to time on the measures to be taken for the development of Cottage Industries in the State. The more important of such boards and committees are:—

1. *State Khadi and Village Industries Board.*—This State Board with the Minister for Rural Development as Chairman and the Director of Rural Welfare as Secretary is responsible for the development of Khadi and Village Industries in the State.

2. *State Handloom Committee.*—The Madras State Handloom Committee reconstituted in 1954 with the Director of Industries and Commerce as Chairman advises Government on all matters relating to the protection and development of the handloom industries in the State.

3. *Regional Advisory Boards for Cottage Industries.*—Regional Boards for the development of industries like matches, palmyra fibre and leaf products and leather goods manufacture which have been developed from local tradition, have been constituted with a view to stimulate intensive development of these industries in the regions where they are important and where there is scope for quick development.

The Director of Industries and Commerce, Madras is the President of each of these regional projects. A Technical Expert of the department, the Local Deputy Registrar of Co-operative Societies and representatives of the industry constitute the members of the Board.

4. *Joint Drugget Industry Advisory Board for Mysore and Madras.*—With a view to reviving the Drugget industry which is one of the Dollar earning industries of this State and of Mysore, a Joint Drugget Industry Advisory Board has been constituted for Madras and Mysore. The Board is in general charge of the development of the drugget industry.

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of cottage and small-scale industries and to bring the consumer in touch with production units, these museums were subsequently reorganised and regional museums were set up at Tiruchirappalli, Madurai, Coimbatore and Kozhikode.

Industries in Rural Areas

The department has been paying special attention to the promotion and development of industries in rural areas. In order to revive and develop rural industries, particularly those which satisfy the basic needs of the villager, a comprehensive scheme for the development of rural industries in the firkas selected under the Firka Development Scheme was sanctioned in 1946. The primary object of the scheme was to train rapidly local workers in up-to-date methods of manufacture of articles of daily use. Under the above scheme about 43 units were started and implements worth about Rs. 1.4 lakhs were purchased by Government. 326 artisans were trained of which 309 were given proficiency certificates. This was followed up in 1948 by another scheme which contemplated the starting of a number of production units by private agencies utilising the equipment and the services of the workers trained under previous scheme. Twenty-two of the Demonstration-cum-Training units started under the 1946 scheme were transferred to private management for being run as production units. Rs. 12,418 worth of tools, equipment and raw materials were sold to the newly started production units and Rs. 6,301 worth of tools and raw materials were transferred free of cost to a few deserving agencies. These production units were confined to the development of basic industries, namely, blacksmithy, wood work, sheet metal work, light metal casting, pottery, tanning and leather goods manufacture.

Research into the techniques, processes, appliances, etc., used in cottage industries has been undertaken in the Cottage Industries Research Institute of the Department of Industries and Commerce.

The financial resources of almost every cottage industry being slender and even too precarious, the need for financial assistance to the establishments engaged in cottage industries has long been realised in the State. Statutory provision has been made in this regard under the Madras State Aid to Industries Act. The Director of Industries and Commerce is empowered to grant a loan or subsidy not exceeding Rs. 500 to any cottage industrialist who desires to start or carry on any cottage industry which has an important bearing on the economic development of the country.

To promote the popularisation and speedy disposal of the products of the cottage industries, industrial and commercial museums were started during the period 1937-42 at several district headquarters, with a Central industrial museum in Madras. To ensure better functioning of the museums, a sales emporium was attached to each of them in 1947, where the sales of the products exhibited in the museums were organised. To facilitate better display and advertisement of products

The special committee appointed by the State Firka Development Board in 1947 pointed out that certain village industries like hand-pounding of rice, flour grinding, ghanny oil pressing which were indispensable for village economy were decaying and that it was necessary to undertake their immediate revival. A scheme designed to achieve this objective was sanctioned in 1950 and implemented in selected compact groups of 50 villages one in each district. This scheme aimed at helping the villagers to produce their daily requirements for

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consumption in their own villages, thus making the villages self-sufficient economic units. It provided for a free distribution of improved labour saving tools and implements worth rupees five lakhs in value to enterprising village artisans engaged in the village industries. It also provided for the supply to the artisans at cost price raw materials such as timber for carpentry, iron for smithy, oil seeds for the village ghani, etc., estimated at a total cost of rupees twelve lakhs and envisaged the formation of multi-purpose co-operative societies in the villages for undertaking the procurement and distribution of raw materials to village artisans. Provision was also made for on the spot technical assistance and guidance through technical instructors under the general supervision and guidance of the District Industries Officers.

In order to bring about an intensive development of industries in rural areas the Government sanctioned in 1951 Sir M. Visweswrayya's industrialisation scheme as an experimental measure in two districts of the State. The scheme aims at the development of industries in every part of the country with a view to increase production and income by encouraging the growth of the spirit of self-help, initiative and ambition in the rural population by offering them opportunity to acquire higher operative knowledge, skill and practice in industries. The special feature of the scheme is that it tries to achieve the objective of rapid industrialisation of rural areas through the agency and active participation of the peoples themselves at every stage from planning to execution.

In the Residuary Madras State the scheme was tried in Musiri taluk of Tiruchirappalli district. Nearly fifty different industries were taken up for development in this area. The results obtained so far are, on the whole encouraging and it is proposed to extend the scheme to additional areas.

Ambar Charkas

An intensive development of cottage industries throughout the State is envisaged in the Second Five-Year Plan. Numerous schemes have been proposed under this plan for the development of village industries like bee-keeping, pottery, oil pressing, manufacture of Khand-sari sugar, cotton ginning, groundnut decorticating, hand-pounding of rice, etc. One hundred small units for making matches and twenty production-cum

training units for the manufacture of fish nets, etc., are proposed to be started in the coastal and other backward areas of the State to provide subsidiary employment to fishermen, Harijans, etc., Twenty-six demonstration-cum-training centres for the development of village tanning and leather goods manufacture and allied industries like preparation of bone-meal, etc., are proposed to be set up throughout the State. These units will demonstrate the proper utilisation of carcass of animals, improved methods of tanning and of leather goods manufacture and preparation of bone-meal, etc., and training villagers in each of these industries. The staff will also visit the workers in their homes and assist them in improving the quality of the articles produced by them. Coir which is one of the important cottage industries of the State is proposed to be developed, intensively throughout the State on co-operative lines. Provision has been made for the manufacture of Ambar Charkas (which was originally designed in this State) and for supplying them on hire-purchase basis to spinners with a view to providing employment to a large number of people. Provision has also been made for the supply, on the hire-purchase system at subsidised rates of other improved tools and equipment such as reeling machines for silk, improved potters' wheel, etc. Village artisans will also be given assistance by way of supply of raw materials at cost price, free assignment of lands and grants for the putting up of work sheds or the conversion of part of their houses into workshops. As the success of all the steps taken for the development of cottage industries will depend mainly on the arrangements made for marketing the finished products, an efficient marketing organisation is proposed to be set up for the purpose. Besides carrying out market analysis and research and advising cottage workers on market trends and facilities, steps will be taken to ensure that as far as possible, production is organised against assured orders.

Certain handicrafts such as art metal work, sculpture, mat-weaving, pith work, etc., which are now being practised at specialised centres have won all-India renown and it is proposed to open training servicing centre for these handicrafts with a view to giving the artisans training in improved methods so as to improve quality and reduce costs, supplying raw materials at

reasonable prices, introducing new and attractive designs, undertaking certain processes of manufacture which the individual artisan will not be able to do efficiently at his workshop, provision of facilities for fine finishing and so on. The main difficulty now experienced in marketing the products is proposed to be met by creating a net work of handicrafts emporia throughout the State and in major cities of India, with mobile vans attached, which will purchase the finished goods in the villages and producing centres and arrange to market them at important tourists and pilgrim centres.

Sericulture

The schemes proposed for the Second Five-Year Plan under sericulture include the continuance of the existing scheme, viz., Gut manufacturing section, Coonor, to meet the requirements of the non-absorbable variety of silk-worm guts of the Indian Medical Directorate and also new schemes, viz., introduction of sericulture in Tenkasi in Tirunelveli district.

Establishment of a filature unit in Krishnagiri taluk to help the weavers in Salem district to get their requirements of silk for weaving and to enable the silk-worm rearers in Salem district to find a ready sale of their cocoons.

Training of requisite technical personnel for implementing the various sericultural schemes of the department under the Second Five-Year Plan and a tentative provision of Rs. 30.75 lakhs has been recommended to the Planning Commission.

Handlooms

A scheme with the object of increasing the production of handloom cloth and to provide employment for the weavers outside the co-operative fold at a total cost of Rs. 100.00 lakhs has been proposed in the Second Five-Year Plan.

Technical Education

As pointed out in the particulars of the schemes undertaken by this department in the First Five-Year Plan, five polytechnics were opened with new certificate and diploma courses and the Leather Trade Institute was expanded into an institute of Leather Technology with additional courses and better facilities for training.

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Fisheries Technological Research in Madras State

By SRI R. VENKATARAMAN, M.Sc., A.R.I.C., Superintendent, Fisheries Technological Station, Kozhikode.

TABLE II.—Analytical values for different fish meals.

TABLE II.—Analytical values for different fish meals.				
Number and name of fish meal.	Protein.	Fat.	Phos- phorous (P ₂ O ₅).	Calcium (CaO).
PER CENT ON MOISTURE FREE BASIS.				
1 Mackerel	62.1	6.11	6.88	9.00
2 Sole	61.42	9.01	2.75	6.22
3 Horse mackerel	60.05	4.11	5.37	6.68
4 Anchovies	62.66	4.00	4.92	7.37
5 Ribbon fish	72.21	6.55	3.78	5.35
6 White bait	68.25	8.34	4.03	4.86
7 Oil sardine	65.27	9.54	5.79	6.01
8 Shark	77.84	5.31	3.00	2.79
9 Skate	77.93	2.19	3.93	0.04
10 Dolphin	69.71	6.91	5.96	4.89

The Fisheries Technological Station, Kozhikode, is in existence since 1945. The main activities of this important limb of the Fisheries Department are the technology of by-products such as fish meal, fish oils, fish manure, etc., fresh and preserved fishes, research on the spoilage and preservation of fish, and research in standards for fresh and processed fish. The work done at Fisheries Technological Station is of direct applied value, to the fishing industry and with the help of the demonstration units spread all over the State the results of research are extended to the field.

A few achievements stand out among others, viz., work on fish meals, resulting in the erection of the first fish-meal plant in South East Asia, at Kozhikode. At first, work on the utilization of 'glut' fish and fish waste was carried out in the laboratory. Using whole fish, the yield of fish meal from various species was worked out. The results are given in Table I. The yield works out to nearly one-sixth the raw weight of ungutted fish. The next step was the determination of 'feed value' of these meals by analysis of various fish meals. The results are presented in Table II. Sharks and skates, which are considered 'ignoble' species yield the best meals followed by the ribbon fish. These fish meals are rich in proteins, calcium and phosphorus.

TABLE I.—Percentage yield of fish meal from fresh fish.

Number and name of fish.	Yield.	
	PER CENT.	
1 Mackerel	17.0	
2 Soles	16.5	
3 Horse mackerel	15.0	
4 Anchovies	17.3	
5 Ribbon fish	15.0	
6 White bait	16.3	
7 Oil sardine	16.0	
8 Shark	16.3	
9 Skates	20.0	
10 Dolphin	17.5	



The Minister breaking coconut to mark the inauguration of the Fish Meal Plant

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growing needs of Veterinary Institutions and Poultry and Cattle Farmers. However it showed that the fishermen themselves could manufacture fish meals on a cottage industry scale, thus preserving fish and obtaining additional income. But yet the demand for fish meals for animal feeding is so tremendous that mechanized production is also needed to augment production. Hence a small fish meal plant at a cost of about Rs. 25,000 was put up at Kozhikode by the Government.

Fish Meal Plant—Salient features

This consists of a vertical boiler to produce steam for "cooking" and drying fish in the jacketed concentrator, where the fish is continuously raked up by a rotating shaft, resulting in expulsion of moisture. The moisture and volatile vapours pass on to a condenser where the obnoxious vapours are drawn out and the "condensed fish solubles" are retained. In a single shift of eight hours, this plant can handle 1,200 lb. of raw fish and yield about 200 to 250 lb. of finished meal. The dried meal is powdered in a disintegrator, passed through a fine mesh sieve and then packed in alkathene lined hessian bags. Fishermen's

Co-operative Societies and middle class merchants can instal such small units which will work very profitable. Apart from whole fish, fish offal, beach dried fish or dry salted fish can also be processed into fish meal. Meals from star fish, cuttle fish, etc., can also be prepared. For processing fatty fish like oil sardine, a cooker with a press may have to be added to the unit, so that the excess oil present in the fish can be cooked and pressed out before converting the residue into meal.

Though the subject of fish meal has been dealt at length, fish oils and fish manures are no less important. In fact fish manures are one of the best organic manures for food crops as well as commercial crops. Fish oils are also likewise produced from the Fisheries Demonstration Units and refined at the Fisheries Technological Station, Kozhikode. They are in great demand in the leather industry. If only the fishing industry is able to make good quality fish oil, then import of lakhs of rupees worth of the same for the leather industry can be stopped. By technological modifications, some of the fish body oils can be made to substitute for 'sperm oil' of whales which is used in textile industry.



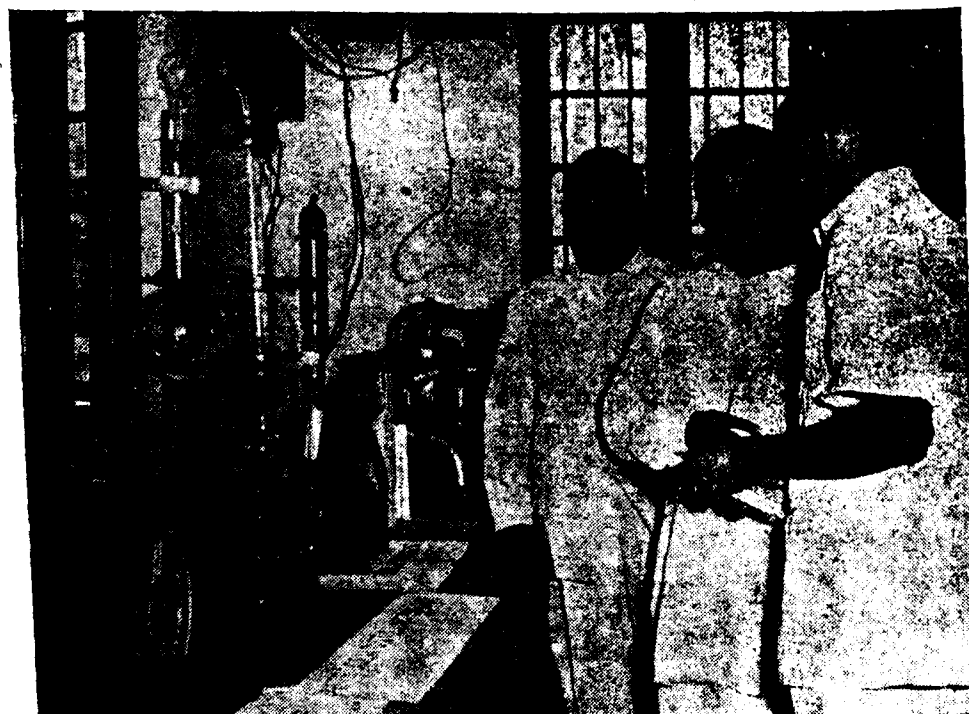
Material being fed to the disintegrator

Semidried Prawns

Another product perfected at the Fisheries Technological Station is the semidried prawns. The production of semidried prawns is so very simple and needs no machinery or costly equipment that it should form a cottage industry. In fact the nature of the process is such that the fisherladies can prepare this product and thus supplement the income of the men. The prawns are simply boiled in weak brine, the shells removed by hand, the 'meat' immersed in saturated brine for 15 to 20 minutes and dried in the sun on raised platforms or 'thatties'. In prawn fishing areas like Pulicat, Porto Novo, Muthupet, Tranquebar, Pamban, etc., this method can be profitably adopted since it is so simple and costs very little. But it keeps for as long as two months and is as good as fresh prawns in value.

The Fisheries Technological Station is carrying out research on the preservation of fresh and cured fish. Preservation with 'chemical ices' and 'antibiotic ices' are being tried to extend the 'life' of fresh fish. Effective methods of insulating fish boxes have been studied and also methods of transporting iced fish. On cured fish more work has been done. The optimum ratio of salt to fish for curing various fishes during wet weather and dry weather has been worked out. The biological stability and keeping

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The Minister Sri M. Bhaktavatsalam going through some of the exhibits at the time of the inauguration of the Fish Meal Plant. The Additional Director of Industries and Commerce, Madras, and Superintendent, Fisheries Technological Station, Kozhikode, are explaining to the Minister.

Sri M. V. Sethu Rao

Winner of the 1954-55 State Paddy Crop Competition Award

Sri M. V. Sethu Rao, a young, fair complexioned, law graduate hailing from a well-known agricultural family of Markayamkottai in Madurai district is the proud winner of the State Paddy Crop Competition Award for the year 1954-55. By adopting scientific methods of agriculture and by introducing improved strain and good manuring, Sri Sethu Rao has been able to raise 8,000 lb. of paddy per acre on his wet lands in Markayamkottai, one of the best paddy production centres in the Cumbum Valley. It is indeed remarkable that this industrious farmer in spite of his having qualified to be a lawyer prefers the plough to the black gown. By his own efforts he has demonstrated that the land which was yielding 5,500 lb. of paddy per acre on an average could be made to yield one and a half times that produce. He owns on the whole 40 acres of wet lands and 50 acres of dry lands in this area, but he personally cultivates only 20 acres of wet lands where he raises paddy and 20 acres of dry lands where he raises dry crops like chillies, ragi, cumbu, etc.

Sri Sethu Rao attributes the primary cause of his success to the high yielding qualities of 'Veedi Vadangan', a strain evolved by the Madras Agricultural Department and technically called A.S.D. 3 and the systematic care he has taken. Prior to the sowing of seeds in the nursery beds, primary seeds were treated with a bucket of salt water for eliminating seeds of poor quality. The nursery was prepared under the Japanese method and the land ploughed in thoroughly. Farm-yard manure mixed with broken soil at the rate of one cart for 2½ cents of land was applied. Adjacent beds were spaced one foot apart to facilitate drainage and intercultural. Besides, a layer of compost, one-eighth of an inch in thickness was spread over these beds and covered with a thin layer of ash.

3A



Sri M. Bhaktavatsalam, Minister for Agriculture, presenting the medal

After sowing, the seeds were covered with a thin layer of fine soil and watered. Ten days later, the beds were weeded once and after this, a mixture of cattle manure, and Ammonium Sulphate at the rate of 300 lb. and 100 lb. respectively per acre were applied.

Transplantation

It was found that the seedlings thus raised on 10 cents of land were sufficient for transplantation over an acre. Before transplantation, green manure and farm-yard manure were applied and after ploughing in twice, a puddler was also used to mix them well. The seedlings were planted vertically at a distance of 10 inches and in rows which were again spaced 10 inches apart, the number of seedlings in each hole being two or three.

One month after cultivation and subsequently weedings were done twice at an interval of 15 days. Intercultivation was used once immediately after weeding.

The crop was ready for harvest in about 135 days and the net profit obtained per acre was estimated to be Rs. 866 and odd.

Sri Sethu Rao says that one of the advantages of adopting 'Veedi Vadangan' (A.D.S. 3) is that at the time of harvesting there is no shedding of corn and thereby there is considerable saving.

Crop competition was first introduced in 1950-51 and has been an annual feature in the State ever since. In 1954-55, 10,248 agriculturists had entered the competition and it has been estimated that the area under competition was 6,694 as against 4,914 in the previous year. There were 2,443 entrants—the highest in the State—in Tanjore, followed by 1,224 in South Kanara and 1,220 in Ramnathapuram. Sri Sethu Rao won the State Prize and the Madurai district prize with the highest yield of 8,000 lb. per acre.

BOOKS ON FOOD AND AGRICULTURE

The publications of the Madras Government listed below cover a variety of subjects on Food and Agriculture such as Food and Commercial Crops, Agricultural Research and Agronomy. Written by experts and available in English, Tamil, Malayalam and Kannada, these moderately-priced booklets will be particularly useful to persons interested in scientific farming, market gardening and rural husbandry.

Name of the publication.	Language.	Price.	Name of the publication.	Language.	Price.
		RS. A. P.			RS. A. P.
1 Fodder Trees and Fodder Grasses.	English	0 8 0	13 Vegetables	English	0 3 0
2 Hedge Plants	Do.	0 7 0	14 Chillies	Do.	0 3 0
3 Some Experience of Plant Protection Work in different districts of Madras State.	Do.	0 4 0	15 Reclamation of Alkaline Soil.	Do.	0 3 0
4 Booklet on Millets	Do.	0 3 0	16 Potatoes	Do.	0 3 0
5 Some South Indian Oil-seeds.	Do.	0 3 0	17 Avenue Trees	Do.	0 5 0
6 Booklet on Pepper	Do.	0 3 0	18 Fruits	Do.	0 3 0
7 Tapioca	Do.	0 3 0	19 Sugarcane	Do.	0 3 0
8 Turmeric	Do.	0 3 0	20 Agricultural Implements and Tools.	Tamil	0 3 0
9 Agricultural Implements and Tools.	Do.	0 3 0	21 Guide Books on Vegetables.	Do.	0 2 0
10 Growers' Pocket Guide on Commercial Fruits in South India.	Do.	0 3 0	22 Guide Book for Vegetables.	English	0 2 0
1 Sweet Potato	Do.	0 3 0	23 Millets	Tamil	0 2 0
2 Grow More Cotton	Do.	0 3 0	24 Millets	Kannada	0 2 0
			25 Sugarcane	Tamil	0 2 0
			26 Sugarcane	Kannada	0 2 0
			27 Tobacco	English	0 2 0

The publications below are under print and expected to be available for sale to public shortly :—

Name of the publication.	Language.	Price.	Name of the publication.	Language.	Price.
		RS. A. P.			RS. A. P.
1 Hedge Plant	Tamil	0 2 0	13 Turmeric	Malayalam	0 1 6
2 Do.	Malayalam.	0 2 0	14 Do.	Kannada	0 1 6
3 Do.	Kannada	0 2 0	15 Tapioca	Tamil	0 1 6
4 Cotton	Tamil	0 2 0	16 Do.	Malayalam	0 1 6
5 Do.	Kannada	0 2 0	17 Do.	Kannada	0 1 6
6 Fruits	Tamil	0 2 0	18 Sweet Potato	Tamil	0 1 6
7 Do.	Malayalam	0 2 0	19 Do.	Malayalam	0 1 6
8 Do.	Kannada	0 2 0	20 Do.	Kannada	0 1 6
9 Oil Seeds	Tamil	0 1 6	21 Rice	Tamil	0 2 0
10 Do.	Malayalam	0 1 6	22 Do.	Malayalam	0 2 0
11 Do.	Kannada	0 1 6	23 Do.	Kannada	0 2 0
12 Turmeric	Tamil	0 1 6			

Copies can be had from the office of the Director of Agriculture, Chepauk, Madras-5, or subordinate offices of the Agricultural Department.

Packing and Postage extra.



POLICE SPORTS
IN THE CITY

Police Sports—it is a day-off from onerous duties. The pleasant aspects of these guardians of Law are shown off before an admiring audience. And you see even the ladies getting into the spirit of it.

Withering of Leaves of Plants in the Coastal Areas of North Malabar

By SRI V. P. NARAYANAN NAMBIAR,
Head of the Department of Physics, Pachaiyappas College, Madras.

My attention has been drawn to a report that appeared in the newspapers some months ago about a strange phenomenon reported to have been observed in some of the coastal belts of North Malabar. The report stated that following cyclonic weather and heavy gale in those areas in last May, it was noted that the leaves, bark and even the tiny twigs of certain trees and plants were found 'charred' on the sides facing the sea and directly exposed to it. Most of the affected leaves and twigs withered away subsequently leaving the parent plants in a state of awful disfigurement.

Specimen cuttings of the affected plants were made available to me almost immediately after occurrence for experimental study and investigation. A mere look at them was enough to convince one of the truth of the report about the destruction suffered by the plants. It was striking that the damage in all cases was confined to certain areas only—presumably the areas exposed to the sea. In the case of leaves in some cases only a portion thereof was found to have been affected the rest of it appearing surprisingly health and normal.

This mysterious phenomenon seems to have led to a lot of wild thinking and speculation among the local people and others in Malabar. Not knowing what this was due to, the report even went to the extent of suggesting whether the trial atomic explosions by the U.S.A., had anything to do with it and whether this was due to the radio activity unleashed as a result of these explosions.

While the conjecture about the incidence of radio activity seems far-fetched and improbable, it cannot also be lightly dismissed or brushed aside



The author with the specimens of withered leaves.

as a merely panicky speculation of a figment of fantastic imagination, especially in view of the reports flashed in the press some time ago about the observance of radio active dust and clouds over Calcutta. If such clouds could make their ominous presence felt in the atmosphere over Calcutta, there was no reason why they could not extend their deadly journey a little further and invade the skies over Malabar. The possibility is there, though remote, and in my opinion the suspicion about radio activity had to be cleared.

Studies on the affected specimens received from North Malabar have been in progress as a side investigation in the laboratories of our college and as a result thereof certain definite conclusions have now emerged.

No Sign of Radio Activity

My first finding is that I find no grounds, on experimental evidence, to warrant the conclusion that the

affect was due to radio activity. The diseased plants on investigation showed absolutely no signs of radio activity or deposition on them of atomic particles associated with it. The investigation of all radio active phenomenon, as students of science are aware, is now made easy by the modern neat technique of studying their effect on photographic emulsions. It will be recalled that the phenomenon of radio activity was discovered by Becquerel because of the action of the radiation on sensitized plates. The radio active particles impinging on the emulsion leave a trail on it, the nature, length and thickness of the tract revealing the identity and energy of the particle. This discovery is due to the great British Physicist Powell, who was awarded the Nobel Prize for it in 1950. Ordinary photographic plates are now however very efficient for this purpose and special plates called 'Nuclear Research' plates are being manufactured exclusively for this kind of investigation. Such plates are now extensively used for the study of Cosmic rays, the plates being sent up in balloons to very high altitudes wherefrom they get automatically released and descend by parachute to be subsequently picked up on the early for examination and study. These plates are also used to obtain information about the distribution of radio active elements in plants and animal tissues and also to determine the extent of exposure of a human being to radiation.

The Nuclear plates are expensive and do not keep long. Even during their short life they have to be preserved extremely carefully. I had with me at the time the investigation was taken on hand a few of them of the most sensitive variety specially got down from England for my research

work. Examination of the specimens for radio activity using such plates yielded results which were purely negative, the plates being found on processing to be clear except for a few isolated cosmic ray tracks which are naturally to be expected in such experiments. It should be observed that these tracks are not visible to the naked eye and have to be carefully observed through a high power microscope.

These experiments, I believe, set at rest apprehensions about the presence of lingering radio activity released and let loose over this planet by the trial atomic explosions and the consequent radio active contamination of the atmosphere. The destruction observed in the present case does not seem to be due to radio-activity.

No Fungus Disease

The ruling out of radio activity made it imperative to investigate whether



The Official Language Commission taking evidence in the Secretariat. Photo shows the Chief Minister, the Finance Minister and Officials of the Government giving evidence on 9th January 1956.

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the destruction of the plants was due to any fungus disease which could also sometimes produce the same lethal effect on them and cause them to wither away. This aspect of the problem has been thoroughly investigated in the Botany Laboratory of the University of Madras—thanks to the interest evinced in it by the Director of Laboratory. Here again the results have been definitely found to be negative.

Spray in Saline Water

The destruction of the plants is presumably the effect of the continuous spray by the high winds of minute droplets of saline water resulting in the deposition of fine particles of salt in the pores of the plants. Plant pathologists are agreed that such strong impregnation of salt in the pores of the plants has the effect of destroying the delicate tissues of the plants causing them to die and wither away. The fact that the destruction was observed after a thunderstorm accompanied by high winds and that the areas of destruction were confined only to those directly exposed to the sea fit in well with this theory.

It might also be of interest to mention in this connexion that in the course of the investigation of the problem, I was able to gather on reliable authority that this is not the first time that a phenomenon of this type has been observed on the West Coast. There have been a few stray cases of such devastation in certain areas of the Travancore Coast abutting the sea. This has also been ascribed to the salt spray of the enraged elements.

Better Books

The Union Ministry of Education has so far spent Rs. 32,383 on prize competitions for the best books for neo-literate adults. A sum of Rs. 1 lakh has been set apart for the next competition.

The number of foreign tourists who visited India in 1954 was 39,333 as against 20,000 in 1951.

Sri K. Kamaraj, Chief Minister, entertained the Chairman and Members of the Official Language Commission on 11th January 1956. Picture on the right shows the Chief Minister with Sri B. G. Kher, Chairman and others.

REPUBLIC DAY

Republic Day was celebrated with great enthusiasm throughout the State. Large masses of people participated in the functions held in the City and in the mofussil centres. Along with the ceremonial parade held in the City, there was an Investiture function at which nine recipients—one of them posthumously—heroes of the Kashmir operations were decorated with the insignia of the Vir Chakra. They are: Flt. Lt. A. Srihari (posthumous), Sqdn. Leader (then Flt. Lt.) A.I.K. Soares, Sqdn. Leader (then Flt. Lt.) V.P. Hegde, Warrant Officer (then F/Sgt.) Arulappa Thomas, Jamedar (now Subedar) R. Thangavelu, Havildar Gopala Kurup, Lance Naik

Perimban Isac, Gunner E. Joseph and Gunner Velumuthu.

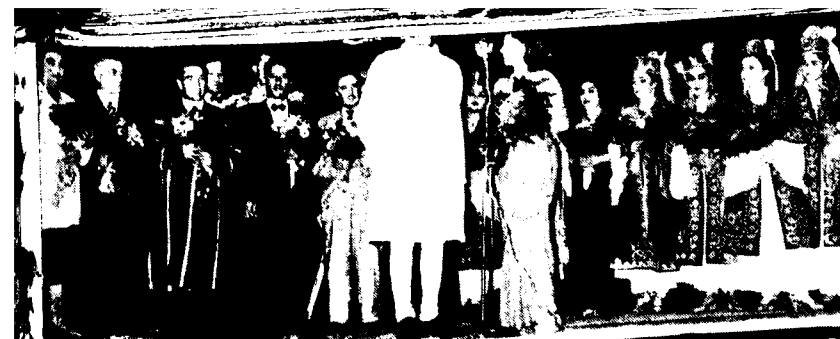
Another novel feature this year was the participation of some of the leading firms in the City in the pageant in the evening. Along with the State Government, the All India Handloom Board and the Madras State Handloom Weavers Co-operative Society, the following firms also participated:—

Messrs. Simpson & Co., Ltd., Parry & Co., Nestles and T.V.S.

The prizes were awarded to the following in order of merit:—

Milo Tableau (Nestles—rolling shield and cup), Simpsons and All India Handloom Board.





32A
 Uzbek Cultural Delegation in the City
 They brought the message of art and culture. They laughed. They danced. They sang. And they proved that in basic fundamentals men and women everywhere are alike.



It's not
how much
but **WHAT**
he eats
that
matters



A heaped plateful of food is no indication of healthy childhood. Your child may eat plenty, yet show visible symptoms

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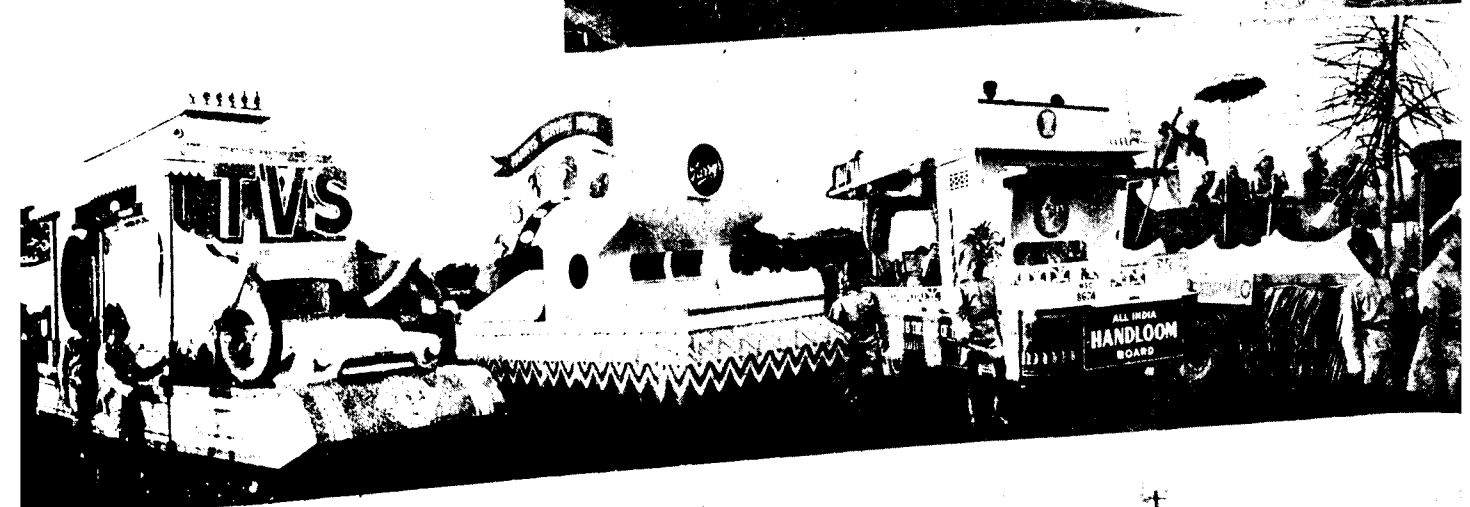
**GOVERNMENT OIL FACTORY,
KOZHIKODE.**

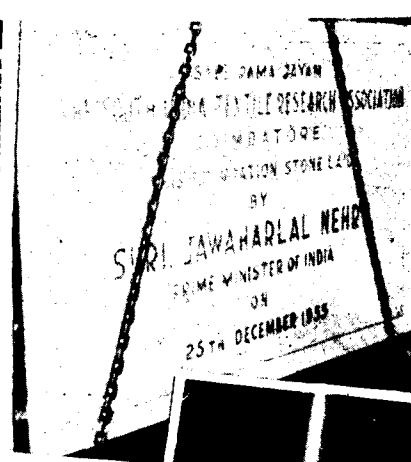
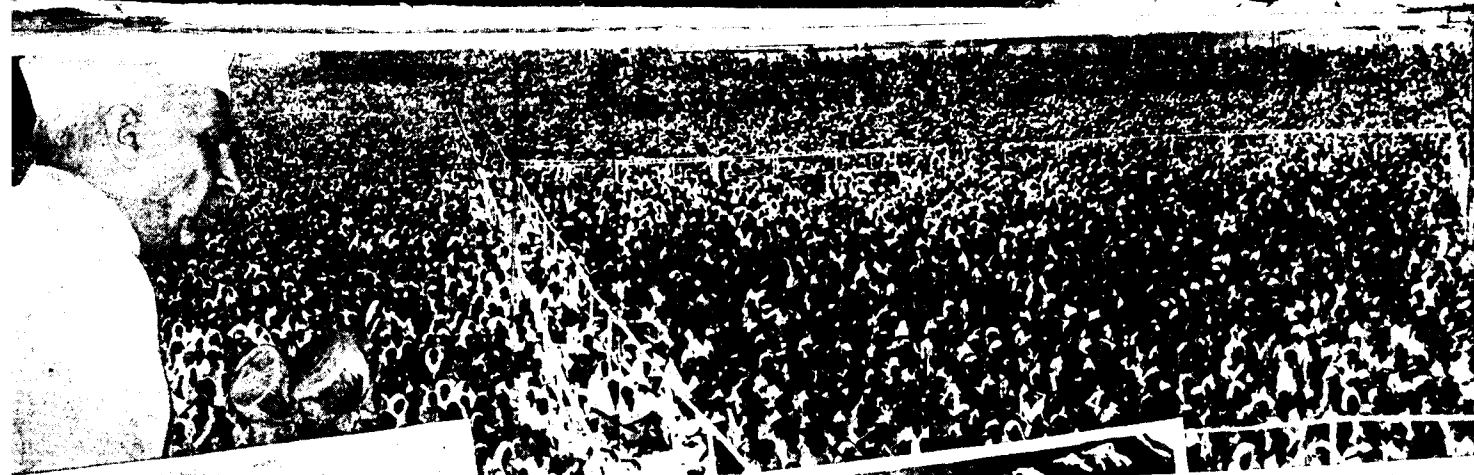
A DIVISION OF THE DEPARTMENT
OF INDUSTRIES AND COMMERCE, GOVT. OF MADRAS.



REPUBLIC DAY SCENES
IN THE CITY

(See facing page)





THE
PRIME
MINISTER'S
VISIT

The Prime Minister was with us again. The people he met there, of Coimbatore, Malabar and South India. He inspired them and they turned to him, charging him with greater responsibility for the people and of this



Sri T. T. Krishnamachari, Union Minister, Sri C. Subramaniam, Minister for Finance and Sri M. Bhaktavatsalam, Minister for Agriculture, visited the cyclone-affected areas. They met the victims, consoled and infused courage and organized relief.

Development of Cattle Wealth

By Dr. V. R. RAJAGOPALAN, G.M.V.C., DIP., B.V.O.T. (Manchester), Director of Animal Husbandry, Madras.

During the period of World War II nearly all the available food material was diverted to meet the needs of the defence forces, considerably depleting the usual reserves of grain, leading to acute shortage in the country necessitating imports of food grain and imposition of rationing. After the attainment of independence, the partition of the country took place resulting in the separation of food surplus areas and in the exodus of vast numbers of displaced persons. The food problem of the country became acute. The shortage of food became so grave that the gulf had to be bridged as quickly as possible. Food grains could be produced in a season, while the production of animal food was fairly a long range policy the results of which could be felt only after a number of years. It was only natural that the First Five-Year Plan which was initiated against this background, had its emphasis on the production of food grains and cereals and that the production of food of animal origin was not given serious consideration.

The progress of the First Plan

The schemes included in the First Five-Year Plan are therefore of the nature of continuation of the existing work with such provisions as were necessary to rehabilitate the cattle economy which had suffered grievously from the war. There was great depletion of cattle even of quality stock because of army requirements of beef. It was necessary to conserve the remaining cattle from the ravages of disease and to raise the quality of the stock.

At the beginning of the plan, there were in the State (Composite State) 144 veterinary institutions and 119 minor veterinary dispensaries, six livestock farms and a farm for salvaging of dry cows. The veterinary facilities thus afforded and the pedigree seeds that could be obtained from these few State farms could scarcely meet the real

demand. The Animal Husbandry Schemes, which were 24 in all, scored a provision of Rs. 56.28 lakhs under the Plan (1951-55). The administrative machinery of the department was strengthened to meet the situation by the appointment of two Deputy Directors of Animal Husbandry and four additional District Veterinary Officers. The schemes under the plan can be broadly classified under (1) Improvement of Livestock, (2) Veterinary Education and Research and (3) Disease Control.

Improvement of Livestock.—The livestock development schemes in the Plan were directed towards arrangements for the production and use of an adequate number of superior bulls of known parentage and productivity and the elimination of inferior and unapproved bulls.

During 1952-53 there were 8 Key Village Centres and 6 Key Farm Centres in private institutions. These Key Centres are compact areas where breeding is restricted by law only to pedigree bulls stationed by Government. After the partition of the State in 1953 there were five Key Village Centres and six Key Farm Centres in private institutions in the residuary State. Two Key Village Centres in each of the years 1953-54 and 1954-55 have also since been opened. Thus there are at present, in this State, nine Key Village Centres and six Key Farm Centres in private institutions. In the above centres a total of 140 breeding bulls are stationed. The work turned out by these centres is as follows:—

(1) Number of collections of semen	4,803
(2) Number of inseminations done	29,470
(3) Number of natural services performed by bulls ..	5,067
(4) Number of calves inspected	1,642

(5) Number of calves for which subsidy was paid ..	147
(6) Number of inoculations conducted	43,981
(7) Number of castrations performed	4,361

The key villages are located only in the breeding tracts of the State and in order to improve the quality of animals in the urban areas four Artificial Insemination Centres have been started and they are located at Madras City, Madurai, Coimbatore and Ootacamund towns. Twenty-nine breeding bulls are maintained in these artificial insemination centres. From 4,534 semen collections 41,183 inseminations were carried out in these artificial insemination centres. Of calves born by this method 4,607 were inspected. Calf rallies were held to popularise the artificial insemination technique and for spotting prospective seed bulls.

The number of bulls at stud under the scheme for the distribution of male breeding stock at the end of 1954-55 was 229 and the number of services performed by the bulls under the scheme during the first four years of the Plan was 55,111, the number of calves verified being 16,228.

A steady supply of pedigree bulls had to be made to assure the success of all these schemes and more cattle breeding farms were required. The development of District Livestock Farms, Pudukottai, Malabar and South Kanara therefore came under the Plan. The former Agriculture Farm at Pudukottai was taken over by this department in June 1951 with a stock of 103 cattle most of which did not conform to any recognised breed characteristics. All the non-descripts were culled out and disposed off and pedigree stock introduced. The strength of the farm at the end of 1951-52 was 64 which rose to 155 at the close of 1954-55 and bulls were produced. During this period this farm

produced 237,063 lb. of milk of which 173,839 lb. were sold to the public. The area under plough in this farm is 6.28 acres and in this a total quantity of 9.74 lb. of fodder has been produced.

The District Livestock Farm, Malabar, was opened in 1950 on an area of 380 acres with a foundation stock of 48 animals of Murrah and Scindhi breeds. In 1951-52 a small stock of Dharwar buffaloes was introduced in the farm. The strength of the farm at the end of 1954-55 was 131. This farm maintains a flock of Malabar goats also from its inception. The number of this flock which was 21 at the end of 1950-51 rose to 53 at the end of 1954-55. During the first four years of the Plan 14 bulls and 22 farm bred bucks have been issued from this farm for breeding purposes. During this period 304,180 lb. of milk were produced of which 251,060 lb. were sold to the public. An area of 130 acres has been brought under pasture and cultivation and 2,998,947 lb. of fodder have been produced.

The District Livestock Farm, South Kanara, was opened in 1950-51 on an area of 630 acres. The breeds maintained are Scindhi, Murrah, Dharwar and Gir. Poultry is also maintained in the farm. The strength of livestock in the farm was 74 at the close of 1950-51 and 306 at the end of 1954-55. The stock of poultry was 140 at the end of 1951-52 which rose to 723 at the end of 1954-55. During this period, 1,008,621 lb. of milk were produced of which 782,685 lb. were sold to the public and 30,770 lb. were converted into milk products. Twenty-three bulls have been issued from this farm for stud purposes. In respect of poultry, so far 784 birds and 974 setting eggs have been issued for breeding purposes and 3,847 eggs and 327 birds for table purposes.

In order to prevent useful cattle of the City of Madras from finding their way to slaughter houses when they go dry, a farm for the salvage of dry cows has been established in the Kambakkam forests and up to 1954-55, 2,327 cows have been salvaged. Five breeding bulls are maintained in the farm for the service of the cows admitted for salvage.

Sheep trade is an important industry and the breeders have to be educated in the several aspects of sheep husbandry. There were two sheep demonstration units at the beginning of 1951-52 and four additional centres were sanctioned during the Plan period. Of these, three units remain in the residuary State of Madras. These three units have conducted 770 demonstrations on the improved methods of washing, shearing and of grading of wool and on the benefits of deworming and deticking. As many as 1,135 shepherds have been trained and seventy-eight improved shears have been distributed. These units have participated in 141 exhibitions.

A flock of Mandya rams is maintained at the Hosur Cattle Farm, to make available Mandya rams for introduction among the hairy sheep of the State to improve their mutton qualities. The strength of the flock at the beginning of this year was 148. So far 21 rams and 20 ewes have been distributed from this flock for breeding purposes. This is apart from Bellary and Bikanir stock which are maintained for cross breeding experiments out of the normal budget. On account of the rapidity with which it can be multiplied at a time when protective food of animal origin is in great deficit, poultry holds the key for a balanced diet for the nation. The practice of keeping backyard poultry is universal and what is required is to upgrade the stock with high productive

strains. Additional poultry seed farms at Cannanore and Koila were added to the ones running from normal budget at Hosur and Madras and Orathanad.

The District Poultry Farm, Cannanore, maintains Rhode Island Red and White Leghorns. There were 526 birds at the end of the fourth year of the Plan. During this period 3,527 chicks were hatched at the farm of which 1,532 birds were sold for breeding purposes. 36,138 eggs were produced of which 9,892 eggs were sold for setting and 4,813 eggs were sold for table purposes.

In all a total of 99,008 eggs and 5,653 birds have been issued for breeding purposes besides a large number of eggs and birds supplied for table purposes.

950 day-old chicks were purchased from United Kingdom with a view to introducing new blood in the stock of poultry. These birds are now being reared at the Poultry Research Station, Madras, so that they may get acclimatised to the new conditions.

Veterinary education and research

Under the scheme for the training of personnel abroad five officers of this department were got trained in the specialised branches of veterinary and animal husbandry matters. Of these three officers are now serving in the residuary State of Madras.

Owing to the expansion of the activities of the department there has been an acute shortage of veterinary personnel and the Second Five-Year Plan and the Community Development Programmes would demand the employment of a considerable number of technical personnel of all categories. The training of a batch of veterinary graduates would take a period of four years and in order to meet the immediate needs a

short course of eleven months' duration was introduced in the Madras Veterinary College during 1954, with 55 admissions (40 for the Madras State and 15 for the Andhra State) and this number has been increased further to 100 during 1955. The candidates of the first batch of the course who have passed out, have all been absorbed in the department.

Statistics plays a very important roll in research and planning. A statistical section was formed in the Animal Husbandry Department during 1954-55 under the charge of a gazetted officer, specially trained in statistics. The object of this is to analyse statistically all the problems connected with Animal Breeding, feeding, and disease control as well as collection and compilation of statistical data on all Animal Husbandry matters including research. Valuable breeding records containing wealth of information, have now been analysed in order to formulate a sound breeding policy. The progressive working of the farms in all their aspects has been fully evaluated. The incidence of diseases on regional and seasonal basis has been worked out to evolve a policy for advance vaccination to prevent the occurrence of the endemic diseases.

A scheme for investigation into the diseases of sheep and goats and to evolve suitable remedial measures has been in operation in the State. Much work has been done on the sheep diseases Enterotoxaemia and sheep Dourine. The work of the scheme is generally regulated by a technical programme approved by the Indian Council of Agricultural Research.

For effective implementation of disease control schemes, biological products of proper quality in adequate quantities are required. Provision was therefore made to modernise the Institute of Veterinary Preventive Medicine, by the purchase of laboratory equipments. Most of the equipments have already been purchased and it can be said that this Institute is equipped now for current needs.

Disease control

The Royal Commission on Agriculture had recommended that there should be a Veterinary Assistant Surgeon for every 25,000 head of cattle but it would be sometime before this goal was reached. As a preliminary step provision was made in the scheme for the opening of a Veterinary Institution so that a veterinary

dispensary and a touring billet will function in each of the taluks. So far 22 Veterinary Dispensaries and 21 Minor Veterinary Dispensaries have been sanctioned. To aid the timely and proper diagnosis of the infectious diseases the opening of 13 clinic laboratories at the headquarters veterinary hospitals and livestock farms has also been sanctioned. The disease control activities carried out by the department during this period are:—

1. Inoculations and vaccinations	4,492,805
2. Cases treated	1,225,285
3. Castrations performed	221,319

A scheme for the control and eradication of Brucellosis has been introduced in Coimbatore district as a Pilot measure. Under this scheme 354 Blood Sera and 140 Synovia have been tested and 5,952 Brucella Vaccinations have been conducted to the end of October 1955.

The Second Five-Year Plan

The Second Five-Year Plan in the Agricultural Sector has been drawn with emphasis on Animal Husbandry and ambitious plans to cover all aspects of development have been drawn up. The cattle population of the State is 15 millions against the All-India figure of 198 millions. The per capita consumption of milk in this State is only 4.18 ozs., as compared to States like East Punjab where the rate of consumption is 16.89 ozs., per capita. This is mainly due to the comparatively low production of milk in Madras State. The condition of cattle in this State is not quite satisfactory and the average yield per cow is 2 to 3 lb. This state of affairs necessitates an intensive campaign towards the livestock development for improving the quality of the animals and the quantity of milk production and demands concerted action on all matters pertaining to animal breeding, nutrition and disease control.

The scope of the Second Plan.—The Key Village Scheme, introduced during the first plan period, has paved the way for the further development of livestock of the State. The intensive programme that has been carried out in the breeding tracts of the State so far as proposed to be extended to the other areas of the State during the Second Plan period by starting additional Key Village

Centres besides Artificial Insemination Centres in all the cities of the State. Twenty additional Artificial Insemination Centres with 120 Key Villages (at six Key Villages for each centre) are proposed to be started during the Second Five-Year Plan period and each Key Village will cover 2,500 cows of breedable age. This scheme will bring into its fold an additional number of 280,000 cows of breedable age for the production of better stock. With the propagation of scientific knowledge, the demand for more artificial insemination centres in the State is ever on the increase, and therefore to develop the urban cattle 13 artificial insemination centres will be started so as to have a centre in each of the towns and cities of the State. The Key Village Scheme also contemplates fodder production in the areas selected to meet the optimum requirements. Accordingly, with a view to creating interest in the cultivation of fodder crops, it is proposed to subsidise an area of about 40 acres in each Key Village where fodders are grown, the rate of subsidy being Rs. 10 per acre of irrigated land and Rs. 5 per acre of unirrigated land. According to the estimates drawn up, by the end of the plan, 29,520 acres of land would have been brought under the cultivation of fodder crops. In the Key Village areas there is a tendency to sell away the superior calves born to the approved bulls even when they are young for economical reasons. In order to give an incentive to the cattle owners to rear the calves up to maturity it is proposed to pay a subsidy of Rs. 10 per calf per mensem from the date of weaning to the date of maturity and 2,000 calves will thus be subsidised during the plan period. This would result in the availability of a large number of superior stock for further livestock improvement work in other areas.

In order to obtain full results from the breeding schemes it is essential that records should be maintained correctly for evaluating the results. Study and utilisation of records of breeding and milk production will help the process of selection of breeding bulls, for further use. Therefore, it is proposed to organise 13 units in the Key Village areas for the collection of such vital data.

A scheme for the utilisation of the bulls produced in the Key Villages of



Kangayan bull (left)
and
Sindhi bull (right)



the State in 42 extension centres is proposed to be put into operation during the Second Plan. This scheme has been drawn up on the recommendation of the Animal Husbandry Wing of the Indian Council of Agricultural Research. A considerable number of approved breeding bulls required for grading up of non-descript cattle in the non-breeding tracts are expected to become available from the Key Villages of the State. Extension centres will be started in compact areas each consisting of 2,000 cows of breedable age and 20 approved bulls will be located in each such area. The scheme will cover 84,000 cows of breedable age and will bring about very rapid livestock improvement. In order to intensify breeding operations in the areas outside the Key Village plan and to effect general improvement by the introduction of better sires, 300 breeding bulls will be purchased and distributed during the plan period at 60 per year. The bulls so distributed will reasonably cover about 72,000 cows.

The Key Village Scheme contemplates the development of not only cattle but all species of livestock. In order to accelerate the development of poultry, 20 poultry units are proposed to be established in the Key Villages. In the first instance, 200 cockerels will be distributed for each of the six Key Village Centres and it is proposed to supply six incubators of 100 egg capacity for each centre. The cockerels supplied will be replaced in alternate years.

Under the All-India Plan of Poultry Development, 10,000 day-old chicks of exotic breeds of Rhode Island Red and White Leghorns will be imported from U.K. and will be reared in some of the State Farms up to 5 months of age and then supplied to the rural areas of

development. A regional farm under this scheme will be started at Coimbatore with 25 extension units. Each extension unit will get 100 birds and will be established in a National Extension Service or other development block. The scheme also contemplates supply of cocks and pullets in compact areas and training of breeders in poultry husbandry. The scheme, when implemented, is expected to result in the production of 310 lakhs of birds and 31,000 lakhs of eggs.

To encourage private individuals and agencies to take to poultry breeding, it is proposed to subsidise 50 private breeders during the Plan Period with a subsidy of Rs. 1,000 each for the purchase of foundation stock, construction of poultry houses, purchase of incubators, etc.

A cattle farm and a sheep farm are proposed to be started. The proposed farms, besides helping to overcome the difficulty in obtaining male stock for breeding, will serve as demonstration centres in scientific breeding. In the sheep farm, research will be undertaken in well-known breeds of woolly and mutton types of sheep as also cross breeding for production of wool, mutton and better quality of skin.

In the existing livestock farms, soil conservation measures will be introduced in about 3,000 acres to improve soil fertility and to increase fodder production to make the farms self-sufficient in fodder and grains. Intensive cultivation of fodder and grains in 325 acres in the Livestock Research Station, Hosur Cattle Farm will be undertaken under irrigated condition in order to develop mixed farming. Construction of residential and non-residential buildings in the existing livestock farms is proposed to be undertaken at a cost of Rs. 5.81 lakhs.

Four Goshalas will be developed during the period of the plan. Only Goshalas which agree to maintain productive animals will be aided. Each such Goshala which has already animals of recognised breed will be helped by the donation of ten cows and one bull of good pedigreed breed.

During the Second Plan period it is proposed to render assistance to ten private cattle breeders to establish ten Goshalas at the rate of two per year. Small establishments owned by individuals who are cattle minded and

taking keen interest in their welfare and improvement and who own a minimum of 25 acres of irrigable land and are willing to maintain 20 productive cows and set apart a suitable portion of their holdings for raising fodder crops to meet the full requirements of their cattle will be registered as Goshalas. Under the scheme, each Goshala will be given a subsidy of Rs. 5,000 towards repairing charges of building, sheds, purchase of equipments, etc., and a good pedigreed bull to improve the herd. A premium of Rs. 300 permanent advance towards the maintenance of the bull and a subsidy of Rs. 2,000 annually for the maintenance of the herd will also be granted. Besides these, the calves born in the Goshala are also eligible for a subsidy of Rs. 10 each per mensem for a period of two years from the time of weaning. The introduction of these schemes will greatly aid the mixed farming practices in the State.

During the period of the plan, one All State and 14 district shows for cattle, sheep and poultry will be conducted each year to create a competitive spirit among the livestock owners and aid the general improvement in the condition of livestock of the State.

Dairying and milk-supply

It is proposed to develop sewage farms at the outskirts of the Madras City and to colonise cattle in the neighbourhood by gradually evacuating the city milk cattle. In the first instance a colony will be established at Madhavaram to accommodate 4,000 milch cattle. The target for the plan period is the evacuating of 7,000 head of cattle. There will be provision in the cattle colonies for the care of dry stock, rearing of calves, veterinary aid, etc. The wholesome hygienic milk produced in the colony will be supplied to the city population.

In order to supplement the supply of fresh cows milk in the City and in order that the poorer sections of the people may get milk at cheaper rates, it is proposed to install a new plant at the Government Milk Factory, Madras, for the manufacture of toned milk. The rate of production will be 15,000 lb. per day during the first year of the plan and gradually rise to 50,000 lb. per day at the end of the plan. Many children who have not known even the taste of milk will now be enabled to have some quantity of this most essential protective food.

Veterinary education and research.

The foremost of the Biological Institutions in the Southern region is the Institute of Veterinary Preventive Medicine, Ranipet, where almost all the required biologicals are manufactured and certain amount of research is carried out. In spite of vast resources and ample facilities, due to the ever increasing demands of the nation, the Indian Veterinary Research Institute is not able, of late, to produce the country's needs in biological products.

There is an immediate need to develop the Institute of Veterinary Preventive Medicine, Ranipet, into a regional centre and to expand its productive capacity of biologicals and increase facilities for research. Therefore it is proposed to strengthen the Institute by appointing a Pathologist, a Bacteriologist and a Research Officer for Bucellosis with corresponding expansion of laboratories and building facilities. The Animal Nutrition and Animal Genetics Sections of the Madras Veterinary College which are of recent origin are proposed to be expanded into full-fledged Laboratories and training sections for the graduates of the Madras Veterinary College and for Research Scholars.

The expansion of the normal activities of the department, the execution of the schemes under the Community Development Programmes and the Five-Year Plans have all created an acute shortage of Veterinary personnel. To overcome this situation the number of admissions to the B.V.Sc. course which was increased from 80 to 100 during 1954-55 is proposed to be further increased to 120 during the year 1955-56. Since the duration of the course is 4 years and the need for the personnel is very acute, a shorter course of Veterinary training of two years' duration is proposed to be started at the District Livestock Farm, Orathanad, with 60 admissions per year. To meet the needs of the increased number of admissions, a three-storied building with lecture halls, laboratories and other facilities and an additional hostel are proposed to be constructed. In order to impart specialised knowledge to the students of the Madras Veterinary College in the subjects of (1) Therapeutics and Toxicology and (2) Gynaecology, special chairs are proposed to be created in those subjects.

Control of cattle diseases.

To reduce mortality and to combat contagious and other diseases which reduce the vitality and working efficiency of the animals it is necessary that this State should have adequate facilities for the protection of cattle from contagious diseases. Ninety-seven Veterinary Institutions will be opened during the Plan period besides the provision of permanent buildings to the existing Veterinary Institutions and their electrification. Fifty additional stockmen will be appointed for assisting the Veterinary Assistant Surgeons in their routine duties in the rural areas.

The State of Madras is now practically free from Rinderpest and it is proposed to divert attention towards the control and eradication of other contagious diseases of cattle like Anthrax, Haemorrhagic Septicæmia, Black Quarter, Brucellosis, etc. Under this programme, mobile Veterinary units will be provided in each of the districts and advance preventive inoculations will be carried out in the endemic areas. In addition, the Plan provides for adequate measures for the control of Ecto-Parasites and Antifluke treatment. Though as already mentioned the State of Madras is free from Rinderpest the other States adjoining are not free from Rinderpest and the All-India Programme of Rinderpest Eradication is in operation in the States like Andhra. To meet the needs of this campaign in the Southern region, with regards to biologicals, it is proposed to increase the production of Rinderpest Freeze Dried Vaccine by 3,700,000 doses. The entire cost of this Vaccine Production Scheme will be borne by the Government of India.

Animal Husbandry under the Community Development Programmes.

The objective of the Community Development Programmes is to change the outlook of the rural population, arouse enthusiasm in them for new knowledge and new ways of life and fill them with ambition and the will to live a better life. The fulfilment of this objective will require:

- (a) Extermination of the greatest evil of property, which is mainly due to underproduction in Agriculture and under-employment and under-employment.
- (b) Extermination of disease and ignorance by providing health, education and other social welfare services.

The aim of the Community Development Programmes is therefore to raise the level of rural life. The various aspects of rural life are inter-related and one or a few of them cannot be developed in isolation while others remain untouched. In the co-ordinated approach to the rural life, the part played by the Animal Husbandry is of no small measure. The cattle are the main stay of the Agriculturists in the village parts without which the acreage of land owned by them cannot be enriched in manure and made fit for Agricultural operations and therefore under the present conditions, Agriculture cannot be intensified without Animal Husbandry work. Agriculture and Animal Husbandry should go side by side to solve the food problem of the State. Milk and milk-products give the animal protein required for the human diet and they are indispensable to humanity to maintain good health. The duty of the Animal Husbandry Department, therefore, with regards to the Community Development Programmes, is to improve the quality of the cattle both for milk and draught purposes in the development areas and to provide Veterinary aid within the easy reach of the stock-owners. Up to the end of March 1955, 116 Breeding and Artificial Insemination Centres were started.

There are at present 38 National Extension Service blocks, four Community Development Blocks, four Community Projects functioning in the State. During the period ending 31st March 1955, 306 pedigree bulls and 3,693 pedigree birds have been supplied. Thirty-two thousand eight hundred and five scrub bulls have been castrated, 185,470 animals have been treated and 456,488 animals have been protected against diseases through inoculations and vaccinations. During the Second Five-Year Plan it is proposed to cover the entire State. A total of about 350 blocks will come into being. When this materialises it is anticipated that the target of the Royal Commission to have a Veterinary Assistant Surgeon for every 25,000 head of cattle would have been realised and every village and every cow in it would come under the active influence of the departmental activities.

The production of foodgrains is proposed to be increased to about 63.5 million tons of cereals and 11.5 million tons of pulses in 1960-61 as compared to 55 million tons of cereals and 10 million



Sindhi Herd

tons of pulses expected to be produced in 1955-56. This will give a per adult availability of 15.5 ozs. of cereals and 2.8 ozs. of pulses as compared to 14 ozs. of cereals and 3 ozs. of pulses recommended by the Nutrition Advisory Committee for a balanced diet. The higher rate of consumption of cereals is warranted by the fact that the recommended levels of protective foods like milk, ghee, meat, eggs, etc., will not be attained by 1960-61. Increased attention has to be paid to the development of subsidiary and protective foods of animal origin to ensure a balanced diet. The per adult availability of milk in India is at present about 5 ozs. as against 10 ozs. recommended by the Nutrition Advisory Committee. A substantial increase in the supply position of food of animal origin is possible only with all-round improvement of cattle-breeding, rearing, feeding and disease control. A start which has been made in this direction in the First Five-year Plan will be intensified during the Second Plan period. The effect of these schemes will be to bring about an improvement of cattle in the several aspects mentioned above, but the supply of adequate quantities of milk and other food of animal origin to assure a well-balanced diet of both animal and plant origins cannot be achieved unless this is carefully planned during the Third Plan period, particularly with reference to the optimum



Members of the Auxiliary Cadet Corps at a pleasant task in one of the slum areas of the City. A Social Service Camp was recently held in the Queen Mary's College.

utilisation of land. It has been estimated that about 15 per cent of arable land should be utilised for the production of cattle fodder. This would mean that about a sixth of the total Agricultural land will have to be assigned by rotation for the production of cattle fodder. A mixed farming practice should become the normal Agricultural pattern. A beginning is proposed

particularly in the Key Village areas in the Second Plan. It should become an established general practice during the Third Plan period.

Growth

Four hundred and fifty-two health centres have been opened at various places under the Community Development Programme.

The Government of India have provided Rs. 5 crores as grants and Rs. 2.5 crores as loans for the All-India Khadi and Village Industries Board for the development of khadi and village industries during 1955-56.

There are at present 31 Primary Schools, two Middle Schools and one High School in the Andaman and Nicobar Islands.

From January to October 31 this year, 6,719,904 persons have been vaccinated with B.C.G.

A sum of Rs. 14,36,478 was realised from Central Government Employees towards the Contributory Health Service Scheme and a sum of Rs. 28,77,379, annas 6 and pies 8 was spent up to the end of September this year by Government on the staff and equipment since the inception of the scheme.



The foundation stone of the Police Stadium was laid by Sri K. Kamaraj, Chief Minister, in Pudupet Maidan on 21st December 1955.

A Day in Mudumalai Wild Life Sanctuary

By SRI M. A. BADSHAH, Personal Assistant to the Chief Conservator of Forests, Madras.

On Sunday the 19th November 1955, I left Ooty at 8.30 a.m. with pack lunch and arrived at the Mudumalai Wild Life Sanctuary at 10.15 a.m. with the object of spending the day, view and photograph Wild Life, an ever-thrilling experience even to a Forest Officer.

This Sanctuary extending over an area of about 120 square miles is situated at a distance of 42 miles from Ootacamund along the black-topped well maintained Ooty-Mysore road. The drive to the Sanctuary from Ootacamund is very pleasant besides exhilarating as it commands a number of magnificent views commencing with the world famous Wenlock Downs dotted with shola forests and ending with several enchanting Valley views on the Gudalur Ghat Section.

The Forest Rest House in the Sanctuary at Kargudi stands on a hillock overlooking a major portion of the Sanctuary and is approachable by the Sanctuary and is approachable by the car. It is well furnished and a small canteen in charge of the Watcher-cum-cook is attached to it. There is no risk of any visitor being stranded for want of crockery, bedding or food. Tinned food is always available and a reasonably good lunch or dinner can be had at short notice.

Enthusiasm Chilled

On arrival at the Sanctuary, my enthusiasm was appreciably chilled when I was told that wild animals could be seen only between 5 a.m. and 9 a.m. and again between 4 p.m. and 6.30 p.m. as during the midday they normally rest in deep Forest Glades both from the heat of the sun and their natural enemies. This news came to me as a bolt from the blue.

I was not prepared for this emergency as I had programmed to return to Ootacamund before lamp light the

same day. Raman Nair, the Game Ranger, suggested that I may take some rest and have my lunch and commence perambulation at about 3 p.m. when the afternoon feeding session of the animals would commence. I became impatient. Wasting four solid hours to suit to the timings of the animals was out of question. I did not go all the way to take rest. I was looking forward to enjoy every minute of my stay in the Sanctuary as nothing fascinates or amuses me more than Wild Life. In sheer despair I sat on the easy chair but soon started twisting and turning; restless to go out and try my luck despite the advice of the local pundits. At about 11 a.m. I jumped into the jeep and summoned the driver to take me along the Mudumalai-Benne Road. Raman Nair came with me. We motored five miles along this road but we could see nothing. Then we took the branch road to Kakkannalla.

Bisons' Greeting

The jeep was going fast as the driver was quite certain that no Wild Life would be visible at the time as he also professed to know something about the habits of animals having been on this road with some other visitors previously. But determination and love seldom fail to evoke a response. I had not gone far from the junction of this branch road when a massive solitary bison greeted me. I saw its huge head sticking out of the tall elephant grass close to the road. The jet black head with pale horns appeared to me like the moon coming out of the clouds. In a moment of excitement having seen the unexpected, I pulled the driver by his collar to stop the jeep. He suddenly applied the breaks and the jeep came to a sudden halt with a thud. This made the bison suspicious and it just disappeared with a most graceful leap into the tall elephant grass.



Bison peeped through the tree like gosha lady

A Gosha Lady's Peep

I got down from the jeep and followed the bison on foot with my camera well set, breathlessly waiting for its reappearance. The grass was taller than me and I am a six-footer. I knew the bison was hiding close by as the rustling of the elephant grass did not proceed further than a stone's throw. The bison was curious to know who the intruder in its domain was and I was curious too. Soon the bison peeped through the trees like a gosha lady seeing unseen little knowing the intruder had stolen a march over her by shooting her with the camera. After bidding good-bye to this bison and thanking her for giving me an audience at such an odd hour to the pleasant surprise of the local pundits accompanying me, I wended my way in very high spirits.

Talking of bison one cannot help recollecting the ruthless destruction

bison faced in America less than a century ago when it had almost reached the stage of extermination. Thanks to the efforts of the National Bison Society which created sanctuaries for this magnificent animal, the bison is well on its way to rehabilitation.

Langur's Acrobatics

Soon I landed at another delightful spot. I was startled by the sound of breaking branches and swinging of tree tops. I looked up and found a troupe of Langurs (Hanuman Monkeys) bounding through the trees with a joyous "whoop". I was not satisfied by looking at them from a distance. I went close to them full of curiosity to watch their reaction but they would not stay. As I went towards them they started retreating from tree top to tree top. Their marvellous leaps beggar description. Rarely one comes across Langurs of the stupendous size met in this Sanctuary. Each weighs easily about 50 to 60 pounds. The greyish white fur coat with black faces and long tails are very characteristic of this species. The human semblance is very marked in them. It was interesting to watch their acrobatics, their balancing on the extremities of the branches, their agility, their leaps and bounds from tree to tree. The tail helps them to balance their body; hitched on the branch it gives an additional support. The more I looked at them the more I liked these innocent creatures who helped Rama in his campaign against Ravana. Could they help me? I contemplated. It is not strange, I thought, that the monkey glands when introduced in the human system should work such wonders in rejuvenation.

Water Holes

As we were rambling Raman Nair suggested that I should visit the two water holes near Indusullah and 'perchance we may come across some animals there. I readily agreed. I can never forget the excitement I experienced while approaching these water holes. We were walking breathlessly in the most sly manner possible amidst the tall elephant grass expecting any animal at any moment. In this tense situation a jungle Bush-Quail suddenly "exploded" near my feet and I staggered. These familiar but sudden "explosions" of Quails and partridges are rather embarrassing specially when one wants to re-

main unscen while stalking game. It is evident that Nature does not tolerate sly and cunning ways in its midst. However I reached the water hole in a down-hearted manner. There was no trace of any animal except the foot prints of elephants, gambhar, bisons and deer. The water holes are most beautifully situated completely hidden from the view surrounded by tall trees and the gaps filled up by shrubs and elephant grass. It appeared to me that human beings are not to defile this place which Mother Nature has so ingenuously constructed to allow its darlings to drink water in peace.

Hide and Seek with Deputationists

At about 2 p.m. while returning to the Forest Rest House, I had another thrill. A deputation of spotted deer led by a stalwart stag in velvet and followed by a few fawns was waiting, as it were to see me, just near the abandoned Military water tank below the bungalow. They stared at me and I stared at them. I counted as many as 30 heads. Human nature being exacting, I tried to go near them my heart throbbing to pat them. They were no doubt accustomed to the sights of men but certainly not so tame as to allow this liberty. As I approached them, they concealed

themselves behind the bushes. I hid myself against a tree to kid them into believing that I had gone. They came out of the bushes after a while. We played this game of hide and seek for some time and then I departed leaving these creatures of unsurpassed beauty, the companions of God Madhava in peace. Very few animals are as graceful and colourful as the spotted deer. God Almighty must have taken very great pains and interest in making its coat. Its rufous faun colour with a dark strip running down the spine with bright rows of white spots all over the body to harmonize with the broken flecks of light and shade of sun-shine filtering through the leaves, a camouflage which God has created for its protection, is something amazing.

Malabar Squirrels

Next to appear on the scene before I reached the Rest House was a pair of Malabar Squirrels busy refuelling on a tree. This beautiful animal was much in demand for making fur coats for European ladies in the olden days. Its meat is also greatly relished and as it was on the verge of extinction for these two reasons, it was declared a protected animal some 30 years ago. The prohibition imposed on the shooting of Malabar Squirrel



Malabar squirrel busy refuelling

has done a lot of good in preserving this beautiful species for the posterity.

These squirrels are chiefly arboreal and always keep to the summits of trees and seldom come aground. They wear brilliant coats and possess bushy tails about 2 feet long. They leap from tree to tree and some time their leap covers a gap of about 20 feet between two trees. They move in pairs being monogamous. They are not so disastrous and do not appear to breed as fast as their counterparts Grey Squirrels in England who pillage the crops extensively and cause enormous damage to young seedlings with the result the Forestry Commissioners had to set up a Committee to study the Grey Squirrel problem. But the food of the Malabar squirrel consists of fruits and nuts, bark, lumps of gum, insects and larvæ which shelter beneath the barks.

A Poetic Flock

I reached the Rest House at 2.30 p.m. Raman Nair took leave of me to meet me at about 3.30 p.m. with Malathi (name of elephant) near Theppakadu to go on an elephant back and see bison herds. Soon after his departure I settled down in the open to have my lunch enjoying the free lunch time music—the song of birds. Balan the Bungalow Watcher-cum-cook was thoughtful enough to make some dishes for me by way of supplementing my pack lunch. Many of the birds in the Sanctuary appear to congregate in the bungalow surroundings lending charm and colour to the Sanctuary. There was a good collection of resident birds and Winter visitors at this spot and I was happy to see them mixing and flying together. It looked to me that the resident birds were taking their guests round and entertaining them, keeping with the traditions of Indian hospitality. The reasons are not far to seek. The birds like settling near human habitations to get easy supplies of water and scraps of food and grain. The Malabar whistling Thrush, popularly known as the Whistling School Boy, the black-headed Golden Oriole, The Corgicus Nilgiri Wood Pigeon, The Paradise Fly-catcher with its silvery white ribbon-like tail, Jerdons Chloropsis, the Bul Bul and the Jungle Babbler made their appearance while the steel blue swallows were capturing winged insects by making short aerial sallies.

One Body, One Will.

The Black Red Start had hardly perched on the rain gauge fence opposite to me when it vanished in a split second. May be she had just arrived from the Himalayan region or Kashmir and gone for refuelling. Parakeets in Emerald Green flitted from tree to tree. There is one thing that always astounds me with regard to the flight of Parakeets. It is also the case with other birds such as Blackbirds, Mynas, wild duck and pigeons that move in large communities. When they are on the alert a flock of Parakeets will all take flight simultaneously as if there was but one bird instead of hundreds. The same impulse seizes every bird at the same time though they are perched on different branches of the tree and well spread out. A flock of birds in flight is one body and one will. It will rise or circle or swoop with a precision which is most astonishing.

That Fierce Pair

At 3-30 p.m. I arrived at Theppakadu in getting up Raman Nair on the way and found Maras (the Mahout) who was waiting for me with Malathi, in a terrific excited mood. He exclaimed that a few minutes before our arrival he saw a huge tiger and a tigress crossing the road from the opposite side and that I had just missed a good sight. Gudalur-Mysore Road passes through this Sanctuary. Immediately I mounted my moving perch and directed Maras to take me in the direction of the tigers. Raman Nair and Madappa sat beside me. Maras steered the elephant very skillfully through the thick jungle, cutting the overhanging branches with a sharp billhook he had. We crossed several nullahs and streams and the journey was becoming most uncomfortable. To the unaccustomed elephant-riding over rough country is not a wholly pleasurable experience. Malathi's topheavy shape and relatively thin legs seemed especially adopted to jungle marching and climbing. She seemed to be in perfect harmony with the surroundings.

The mahout, short of stature and thin built, looked like a dragon fly perching on a bull's horn. As we were rambling, I saw a solitary doe fleeing frightfully. It is rather strange to see a single spotted deer running in this fashion as this species is generally

gregarious. The only explanation was perhaps the tiger and the tigress which the mahout saw a little while ago had caused a stir and disturbed the herd or alternately wild dogs had scattered it. This doe after running up and down soon vanished and we continued our ramble. We had not gone far when we came across a small herd of spotted deer consisting of one stag and four hinds. This stag was in hard horns unlike the one I saw in velvet near the bungalow. It appeared to me that the solitary doe must have separated from this herd which also behaved in an unusual manner. My suspicion that the tigers must have caused this fright was further strengthened. I saw fresh pug marks of tiger in several places and these were quite clear on the wet forest floor. In one of the nullahs I saw the foot-prints of a tiger and deer side by side. For an hour after seeing this herd the journey was monotonous, except for a variety of landscape if one has an eye for topography, as nothing could be sighted.

Unperturbed

The monotony was soon broken by the sight of a bison herd and Maras started wheeling the elephant towards this herd. As we were approaching the herd it was running away from us. We soon realised that we were marching towards the herd in the direction of the wind and the bisons scenting us were running away. Maras changed this direction and went by a circuitous route against the wind. Now we could reach the herd within about 20 feet and the bisons looked absolutely unperturbed. The fact of the matter is that they are not able to see the persons sitting on the elephant viewed from the low level on which their eyes are located. Further bisons allow elephants to mix with them freely as these two are good associates.

Bisons relish greatly tender bamboo shoots and elephants help them by bringing down the culms. In this herd I counted 24 adults and 3 young ones. I was amazed at the great diversity of colour among the bisons. The young bulls and cows are rufous, the adults dark brown and the old bulls jet black. I saw a huge bull in the herd with a gigantic head, the like of which I had never seen before. This bison should easily weigh not less than 2,000 to 2,500 lb. This massive bison

(Continued on page 27)

Community Projects Bring New Life to South Sea Islanders

A team of seven Fijian Specialists have brought new life to the tiny island of Moturiki. They made a five months' survey of the island's possibilities, submitted their findings and then returned to lead the people to carry out for themselves the developments suggested. The job was accomplished in 16 months, a pilot project for further South Pacific Development Plans.

More than 75 per cent of the money and nearly all the labour were provided voluntarily by the islanders themselves, and nearly £1,000 is left in their fund for future projects.

Moturiki is a small island, of less than five square miles. The population at the start of the scheme was 588 persons, living in nine villages of which the largest held less than 100 people. Most of the country was covered by reeds and low fern, though there is high timber in some of the southern valleys. The people were not progressive, having a long tradition of subjection to a larger, neighbouring island. They were mostly occupied with subsistence farming on the shifting principle which afforded them adequate food with comparatively little effort, but the general standards of cleanliness, housing and health were poor. Their only cash crop was copra, less than 100 tons being sold annually.

Preliminary Survey

The survey team found the land suitable for extended agriculture, and that there were nearby markets for cash crops. Transport appeared to be a major problem. Agricultural improvements suggested included the thinning and cleaning of coconut plantations, provision of proper drying and storage facilities for the copra, rehabilitation of pine apple growing and the further planting of yagons, from which Fiji ceremonial liquor is made. The forestry programme included the provision of a plant nursery, afforestation of water catchment areas and eroded

slopes, the thinning and cutting of mangroves to be sold as firewood in other islands.

The special programme, on which the first start was made, provided for a clinic, a maternity home, the improvement of sanitary arrangements, mid-day milk for school children and the encouragement of women's crafts.

Village amalgamation, an obviously desirable project was put off because at no time were there more than 143 adult males available for work. The housing problem was met by training a home repair team to tour the island.

Team of Specialists

The team who set out to turn this ambitious programme into fact consisted of an Organizing Teacher as leader, an Agricultural Field Assistant, an Assistant Filariasis Inspector, a Forest Guard, a Carpentry Instructor, an Assistant Nurse and later on,

a young teacher specially trained in home crafts. They worked through a committee elected by ballot, one member from each village. Five hundred pounds were provided by the South Pacific Commission and the islanders agreed to subscribe half of the proceeds of their copra industry each year and to subscribe from the results of other cash sales as they developed. Some £2,200 were accumulated in their Development Fund during the period of work and nearly £1,000 is still left for further work.

The clinic and maternity homes were the first projects to be completed and 15 babies were born in the clinic during the first 10 months. In addition 3,000 out-patient cases received attention.

Indigenous Leadership

Agricultural development quickly showed results. The proper marketing



Sri N. E. S. Raghavachari, I.C.S., Director of Community Projects is communicating something funny to this tiny member of the Service Home. But the little fellow doesn't seem to be taken in by the joke.

of copra resulted in its cash value being doubled. Transport from the island to marketing areas has been improved by the building of a special cargo-carrying punt. The sale of firewood allowed some £50 to be subscribed to the Development Fund after the producers had been paid and similarly, the new handicrafts industry yielded £60 to the fund. Newly-opened rice areas produced a crop half of which was sold for £60 and 1,400 new trees were planted in a soil-conservation scheme.

The islanders are convinced of the value of a proper development plan within their own economic ken. Probably the most important conclusion formed by those who have studied this pilot scheme is that a people will follow leaders of their own race if the right men, who know their job, are picked. The second point is—show some results quickly, and the rest is fairly easy. (Issued by British Information Services).



Srimathi Durgabhai Deshmukh addressing the members of the Women's Welfare Department Social Service Home on 23rd December 1955.

(Continued from page 25)

looked at us suspiciously and I would not have been surprised had it charged us. But we sat as quite and innocent as stones and soon there was a change in his attitude. Presumably our innocent and harmless looks assured him of our peaceful intentions. The way we were tracking this herd suggested to me that we were shepherding these bison. I spent nearly 20 minutes in their midst and took several snaps. I had a look at them to my heart's content.

A Jam and a Prayer

It was getting dark and threatening to rain. I asked Maras to take us back to the jeep. He took us along one of the elephant paths expecting to show me some elephants which were getting conspicuous by their absence and in the bargain I received several bruises and injuries when the elephant had to make way through a sea of had to make way through a sea of lantana and impenetrable thorny bushes. At one place a gigantic overhanging thorny climber caught hold of my garment and lifted my leg and I clung to the iron railings of my howdah saying prayers and soon the leg came down with a big tear near the knee. But I could see no elephants. The thick lantana bushes were rich in grey jungle fowl and we often saw glimpses of their brilliant plumage through the branches as the elephant was disturbing them.



Malathi and the Author

Sweets for Malathi.

I arrived at Theppakadu at 5 p.m. where the jeep was waiting. I got down from Malathi's back and patted her for the excellent day's enjoyment she offered, and gave her some sweet purees and jaggery obtained from Teppakadu Tea Shop which she acknowledged with a bow and I wished her well and got into the jeep and left for Ootacamund. (Photographs by the author.)

Snippets

About 5,600 tubewells are expected to be completed by the end of the First Five-Year Plan period as against the target of 4,000. These will provide irrigation for two lakh acres of land.

Over one million acres of Kankar-infested land in Central India and about 41,000 and 48,000 acres of jungle land in Uttar Pradesh and Bhopal respectively have so far been reclaimed by the Central Tractor Organization.

The output of factory workers in India rose by 43 per cent during 1950-54, i.e. at an average rate of 8.6 per cent per annum. This period coincided with the First Five-year Plan. During 1943-54, however, the average rate of increase in worker's productivity per year was 2.7 per cent.

The Government of India have introduced 44 scholarship schemes. Of these, 27 are for studies abroad and 17 for higher studies within the country.

Up to the end of October 1955, the Rehabilitation Finance Administration had disbursed Rs. 985.87 lakhs as loans to displaced persons from East and West Pakistan.

Increasing Rice Production

By SRI K. RAMASWAMY, Paddy Specialist.

Rice is the more important food crop of our State, the staple food of nearly 75 per cent of population. From an area of six million acres we produce every year, nearly three million tons of rice, which quantity is hardly sufficient to meet our full requirements. We have to produce much more than this for covering the deficit and to provide for a rapidly multiplying population as also to insure against unfavourable seasons, and the ravages of pests and diseases. The only way is to increase the yield which now stands at about 1,400 lb. of paddy per acre by at least 50 per cent. It is found that scientific methods of cultivation and the knowledge so far gathered could be harnessed and utilised to solve our food problem to a very material extent.

Better seeds

While talking of increasing production we have to consider its different aspects, namely, the nature of the seeds that grow into a crop, the soil on which the crop grows and the way it is grown. The seeds must have the inherent capacity to give increased yield and must be pure and free from admixture of inferior types. From the different Agricultural Research Stations in our State over 100 improved strains are now being distributed to cultivators. The superior varieties are capable of yielding 15 to 20 per cent more than their local counterparts. These are of different durations and are adapted to different seasons and tracts. Of these, Co. 13, PTB 10, ASD 8 and TKM 6 stand foremost as short-term varieties which can be grown in any season. Strains like Co. 25 and ADT 25 are also in the forefront as they are resistant to the fell disease 'Blast' which takes heavy toll of the crop in certain parts of this State. Using improved strains suited to a tract and disease resistant strains wherever the disease is prevalent is a sure way of increasing production and stabilising yield. Loss in produce due to uneven growth and loss in

milling could also be reduced by growing improved strains, besides ensuring quality.

Manuring

As is well known the adequate manuring of the field is an all-important factor in rice production and phenomenal yields have been recorded by adequate manuring in recent years. Of all the different nutrients, maximum response is obtained by application of nitrogen, the cheapest and most efficacious source for wet paddy being green leaf, supplemented by artificial manures like ammonium sulphate. The optimum dosage consists of 5,000-6,000 lb. of green leaf and 100 to 150 lb. of ammonium sulphate. Phosphate fertilizers can also be applied with benefit in the form of superphosphate at 150 lb. per acre. Time and method of application of these manures have to be borne in mind for their maximum utilization. Green leaf is to be thoroughly incorporated into the soil a week or two before transplanting. Super is best applied

just before the final ploughing, in order to place the fertilizer as near the root, zone of the plants as possible. A quick acting fertilizer like ammonium sulphate is effective when applied a month before the flowering of the variety grown. This would roughly correspond to 30 to 45 days after planting according to duration. The quantity of these manures especially that of ammonium sulphate should be adjusted according to experience, due attention being paid to see that the plants do not flush into rank leafy growth.

In the case of transplanted crop, manuring of nursery also is essential. Ten to twenty cart-loads of cattle manure or well prepared compost for dry nursery and about 10,000 lb. green leaf for wet nursery are to be applied and evenly incorporated. The object in manuring nursery is to get robust and well-grown seedlings. Here again some adjustment may be necessary regarding dosage of manure according to the fertility of the land. A top dressing of



The Transport Advisory Committee met in the Secretariat on 21st December 1955.

Ammonium sulphate at 50-75 lb. per acre could be given ten to twelve days before pulling out, if seedlings are found to be stunted in growth. Where paddy is sown directly in the field as in the case of rain-fed crop, manuring of the field with 10 to 20 cart-loads of cattle manure or compost is necessary. A top dressing of ammonium sulphate may also be given later for the crop grown under semi-wet condition.

Economy in using seed.

Certain important points bearing upon the way in which the crop is raised may now be indicated. It is not uncommon to find cultivators using a large quantity of seeds in raising a nursery and in direct sowing in the field. It must be remembered that 20 to 30 lb. seed would be sufficient to transplant an acre, provided sufficient care is taken to see that best seeds alone are used to ensure that every seed germinates and gives a healthy seedling. A thorough preparation of the nursery beds and adequate attention to disperse the seeds at uniform depth in the soil, are required to get complete and uniform germination. Such reduction in seed rate is possible in direct sowing also and ten to twenty per cent seeds could be saved thereby.

The age of seedlings had also an important bearing on yield. One week's growth in the nursery for every one month of duration of the variety is a thumb-rule which is found to work well in practice. But care should be exercised when conditions other than the normal prevail. The aim should be to produce strong and healthy seedlings and plant them before formation of nodes.

In the transplant field a spacing of 4" with two seedlings per hole may be used for short duration varieties, while 6" to 9" may be given for longer duration varieties, three to four seedlings being used per hole. It would be advantageous to plant the seedlings in regular lines so as to facilitate weeding and application of fertilizers.

Sesbania

It has been stated already that the most important factor influencing yield is field manuring and that green leaf is the most economical. It must be stressed in this connection that every cultivator should aim at self-sufficiency in green manure. Plants like Sesbania

speciosa can be raised in the field itself, when it is found to give good tonnage. What is produced from an acre would be sufficient to manure five or six acres. Sesbania seedlings could be planted along the fims of planted field at the time of transplanting paddy for production of manure for the succeeding crop. In lands of high fertility, it is possible to get up to 3,000 lb. green leaf in this manner. Perennial green manures like Gliricidia maculata and Indigofera teysmanii grown in vacant sites and corners are also found to yield large quantity of green leaf to supplement field production. In fact these plants have come to our aid in adequate manuring of over quarter the area under irrigated paddy, resulting in appreciably increased production. The practice needs to be encouraged for covering the entire area. It is now established that by adequate field manuring alone, an extra production of 30 to 40 per cent could be obtained from every acre of our land.

Correct irrigation

It is necessary to point out in this connection the wasteful method of irrigation that is being widely adopted. Smaller quantities of water given at shorter intervals are preferable to the

prevailing practice. It is quite possible to economise water and utilize more area for growing paddy.

Irreparable damage to crop is sometimes brought about by pests and diseases. While diseases could be avoided by growing resistant strains, dusting and spraying of chemicals are necessary to prevent ravages by pests. There are now many such products in the market. There are indeed very effective, provided the application is done in time.

I have indicated briefly the various aspects of rice cultivation, attention to which would enable us to increase production. It is up to the cultivators to take advantage to the maximum possible extent. The price support announced by the Government is also there to allay their fears of any slumps in the market.

"Produce more or perish" may well be a slogan in the endeavour towards increasing rice production which, by the way, is a duty we owe to our country and our people.

(By Courtesy, A.I.R.)



The Dave Commission on Indigenous Medicine. Photo taken when the Members were entertained to a party by Sri A. B. Shetty, Minister for Health.

Pain Abdomen

By Dr. P. B. MENON.

No where in medicine is early diagnosis more important than in the acute abdominal pain for an early diagnosis and prompt Surgical intervention the life of a patient often depends. Pain is with few exceptions, the first in the most important symptom of an acute abdominal catastrophe, and in arriving at a diagnosis we are found to reply on the patient's statements as to the quality and situation of the pain and on our own objective findings as to any associated tenderness and rigidity. But it is idle to hope for accuracy in diagnosis unless we have in addition to the clinical data a sound understanding of the mechanism of abdominal pain. The most careful and accurate observer may come to an entirely wrong conclusion if he entertains a wrong theory of the manner in which an abdominal pain is caused. It will be seen then that the mechanism of abdominal pain, far from being of mere academic interest is of the most vital importance to efficient diagnosis.

One may as well ask, why there is such difficulty in interpreting abdominal pain. A particle of sand or grit on the conjunctiva causes pain and the explanation is simple for the pain is due to the mechanical stimulation of the exquisitely sensitive nerve terminals. But in abdominal pain we are confronted with variations in the quality and distribution of pain and in the presence of muscular rigidity or tenderness on palpation that offer a perennial difficulty in interpretation.

Classification of Pain

Abdominal pain can be classified under four categories perforation, inflammatory, obstructive and colic. Perforative kind show well marked rigidity of the abdomen. Inflammatory pain show marked tenderness in an area which is referable to the site of the inflamed organ and the rigidity will be localised. In obstructive abdominal pain, in the majority there will be variable amount of distension of the abdomen, with very little rigidity and almost no tenderness. In the colic except in the intestinal colic which is the symptom of the intestinal obstruction the other colics like renal, biliary colics have got characteristic features.

Rural Electrification

The number of additional villages electrified during the month of October in the various systems were as follows :—

Pykara System	28
Mettur System	15
Papanasam System	5
Madras System	20
Total	68

The names of villages together with details of taluk and district are given below :—

List of villages electrified during the month of October 1955.

Names of villages or towns.	Taluk.	District.
Pykara System.		
1 Pulavadi	Udamalpet	Coimbatore.
2 Mettupalayam	Do.	Do.
3 Rangasamudram	Do.	Do.
4 Doddampatty	Do.	Do.
5 Sholapuram	Pollachi	Do.
6 Sholipalayam	Do.	Do.
7 Ketchankinarpudur	Avanashi	Do.
8 Nachipalayam	Coimbatore	Do.
9 Kottapalayam	Gobichettipalayam.	Do.
10 Karapadi	Do.	Do.
11 Melapalayam	Erode	Do.
12 Annur-Metturpalayam	Avanashi	Do.
13 Sellanoor	Do.	Do.
14 Pattakaranpudur	Do.	Do.
15 Edayapalayam	Do.	Do.
16 Karappalayampudur	Do.	Do.
17 Kottayam	Palghat	Malabar.
18 Pulinnalli	Do.	Do.
19 Varod	Do.	Do.
20 Chembarakulam	Do.	Do.
21 Pudurpatti	Periakulam	Madurai.
22 Melmangalam	Do.	Do.
23 Vadugapatti	Do.	Do.
24 Sedapatti	Do.	Do.
25 Kenthorai	Ootacamund	Nilgiri.
26 Kemmannur	Udipi	South Kanara.
27 Mavathampatty	Nilakottai	Madurai.
28 Thumbar	Coonoor	Nilgiris.
Mettur System.		
1 Chinnasalem	Kallakurichi	South Arcot.
2 Uthangalmangalam	Tirukoilur	Do.
3 Vadavirichipuram	Gudiyatham	North Arcot.
4 Kosavampudur	Do.	Do.
5 Tirumani	Do.	Do.
6 Ozayathur	Do.	Do.
7 Vizundakkal	Do.	Do.
8 Ammavathangal	Arkonam	Do.
9 Calaysnaikanpatty	Tirupattur	Do.
10 Tokkiam	Do.	Do.
11 Essayanur	Wallaja	Do.
12 Kodakkalpudur	Wallaja	Do.
13 Paramandal	Chengam	Do.

Names of villages or towns. Taluk. District.

Mettur System—cont.		
14 Unjalur Kolathupalayam	Erode	Coimbatore.
15 Hosur	Hosur	Salem.

Papanasam System.		
1 Vagaikulam	Sankarankoil	Tirunelveli.
2 Kurunjakulam	Do.	Do.
3 Chinnavagaikulam	Do.	Do.
4 Kallikulam	Do.	Do.
5 Aruppankulam	Sattur	Ramanathapuram.

Madras System.		
1 Kilmanambedu	Sriperumbudur	Chingleput.
2 Chinnapanancheri	Do.	Do.
3 Paraniptur	Do.	Do.
4 Puldivakkam	Do.	Do.
5 Madipakkam	Do.	Do.
6 Sundaracholavaram	Do.	Do.
7 Thiruvirkadu	Do.	Do.
8 Kolathurvancheri	Kancheepuram	Do.
9 Karai	Do.	Do.
10 Vedal	Do.	Do.
11 Uthiramerur	Do.	Do.
12 Manampadi	Tiruvallur	Do.
13 Senji	Do.	Do.
14 Sennavaram	Do.	Do.
15 Tirupachur	Do.	Do.
16 Talakancheri	Saidapet	Do.
17 Vadaperumbakkam	Do.	Do.
18 Adayalambuttur	Do.	Do.
19 Kuppam (hamlet of Ambattur village).	Do.	Do.
20 Mangalapuram	Do.	Do.

Work on a large number of rural extension schemes spread over the entire state was progressing. The following are the particulars of length of new lines constructed and energised during the month in the various systems :—

	Length of line H.T.	Length of line L.T.
Pykara System	17-92	57-40
Mettur System	82-97	48-11
Papanasam System	7-96	18-16
Madras System	22-03	22-60

In the Madras System a total number of 239 services with an approximate load of 222 K.W. were changed over from D.C. to A.C. supply on a voluntary basis.

During the month 52 extensions were sanctioned by the Chief Engineer for Electricity and Chief Operation Engineers at a total estimated cost of Rs. 27.3 lakhs.

The number of villages electrified during the month of November in the various systems was as follows :—

Pykara System	20
Mettur System	39
Papanasam System	30
Madras System	19
Total	108

In diagnosis listening to the abdomen gives clue to the cause of obstruction. One can eliminate paralytic items because intestinal sounds will not be heard whereas in mechanical variety loud gurgling noises will be heard. The real difficulty arises in distinguishing between strangulated and non-strangulated varieties.

Correct Diagnosis

Abdominal pain is a very serious condition in all but the mere colic and is a common cause of death. Its correct diagnosis and management is very essential and the general practitioner is most concerned in the early diagnosis of such cases. The term acute abdominal pain barring simple intestinal colic is used for the condition which denotes any interference with the progression of the intestinal peristaltic movements. The patient's attention is always drawn to one important symptom and that is inability to pass flatus and often faeces. Inability to pass flatus is much more important. In the out-patient department of any big hospitals cases come in frequently with pain abdomen. Often with a history that acute pain of abdomen started about four days ago and that he or she was not able to pass motion or flatus since then. It is quite customary to hear from these patients that they have tried various purgatives with no result. It might have been on the advice of a medical man or by himself. And by the time they arrive at the hospital several precious hours have elapsed, the condition of the patient very critical, very badly deteriorated and sad to say all too often nothing could be done.

In other cases the patient has received a dose of morphine and pain is relieved and he feels that everything is all right with him. It is emphasized that the effect of morphia gives him a temporary feeling of well being and all the dangerous symptoms and signs are masked. After the action of morphia passes off the masked symptoms reappear and several precious hours are lost. Here again the patient comes to the hospital in a moribund condition and very little could be done to save him.

Hospitalisation Essential

It is on this account that pain abdomen is said to be a very serious condition the sooner the patient reach a

competent place the better is his chances of survival. Pain abdomen of the serious variety cannot be treated in the houses and hospitalisation is essential where only accurate diagnosis adequate attention and treatments could be given. This is specially true of children where diagnosis is difficult and treatment even more so. Hence an appeal is made to the public to consider pain abdomen as a very serious condition which takes a very heavy toll of human life and should not be taken lightly.

(By Courtesy—A.I.R.).

(Continued from page 10)

quality of salted fish also have been studied. Salting, as at present done, will preserve the fish for two months. The quality of cured fish of markets was studied. This showed that moisture was high. A minimum salt, maximum water content for the cured fish has been suggested. The State Curing Yards consume about six lakhs maunds of salt. The quality of salt is a primary factor in production of quality cured fish. Hence a strict control on the salt supplied is kept by periodical analysis of salts. Only salts with an NaCl content above 94.0 per cent are accepted now, and it will be gradually raised. Investigations at the Fisheries Technological Station have shown that the spoilage of salted fish is due to salt-loving and salt tolerant bacteria. The reddening of salted fish is caused by salt bacteria and they spoil the fish. The greater the magnesium in salts, the greater is the number of these red bacteria. Salts with very low content of magnesium had no red bacteria or had very few

of them and these salts should be used for curing fish. Methods of controlling these red bacteria have been studied.

Besides these problems, research work on the methods of studying fish spoilage, indices of fish spoilage, epidemiological aspects of market fish, problems in canning of fish, etc., are also actively pursued. Technological advances directly help the industry in producing materials at economic rates and preserving them longer and preventing losses. Technological research is a hand maid in the rational development of the fishing industry.

Facts and Figures

32,016 students belonging to the Backward Classes were awarded scholarships during 1955. The number of applications received for these scholarships was 58,381.

The Government of India have sanctioned during the current financial year Rs. 35,37,473 as grants to State Governments for the development of libraries. India has about 32,000 libraries with a book strength of 71 lakhs.

Sindri has set up yet another record. At mid-night on December 27, 1955, Sindri's production figure of Ammonium Sulphate for the year reached 320,262 tons as compared with the target of 320,000 tons.

Life insurance business in India touched a new high in 1954. As compared with 1953, the number of policies issued by Indian companies increased by about 144,000, the sum assured by Rs. 75.14 crores and the premium income by Rs. 3.29 crores.

(Continued from page 8)

As the implementation of the various schemes of the State in general and this department in particular will involve a huge demand for skilled and other supervisory personnel, it is proposed under the Second Five-Year Plan to develop the Polytechnics and the Institute of Leather Technology further by provision of more number of courses increase in the number of seats and provision of better facilities, etc., and also to open five more Government Industrial Schools at Cuddalore, Virudhunagar, Palayamcottai, Nagapattinam and Cannanore.

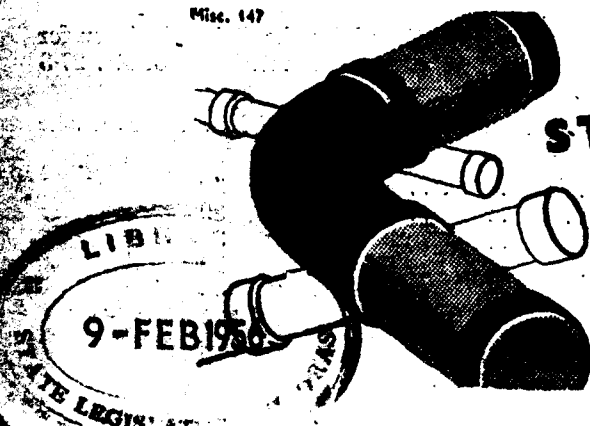
Agriculture—Minor Irrigation

In the First Five-Year Plan, with a view to help the agriculturist in bringing more acres of land under irrigation 101 artesian wells were sunk in the South Arcot district and 23 additional drills were purchased to be hired out to the intending parties for putting down bore-wells. Further to encounter the difficulties that the ryots were experiencing in digging wells in rocky areas, three Air Compressed Blasting units were formed.

As the demand for bore-wells from the agriculturist is still increasing, it is proposed to take up a scheme in the Second Five-Year Plan for sinking 300 more tube-wells at 60 wells per year, for which a tentative provision of Rs. 75.00 lakhs has been recommended by the State Government to the Planning Commission.

The Chittaranjan Locomotive Works has so far manufactured 295 locomotives, while the annual rate of output has increased from 120 average size locomotives to 165.

Misc. 147



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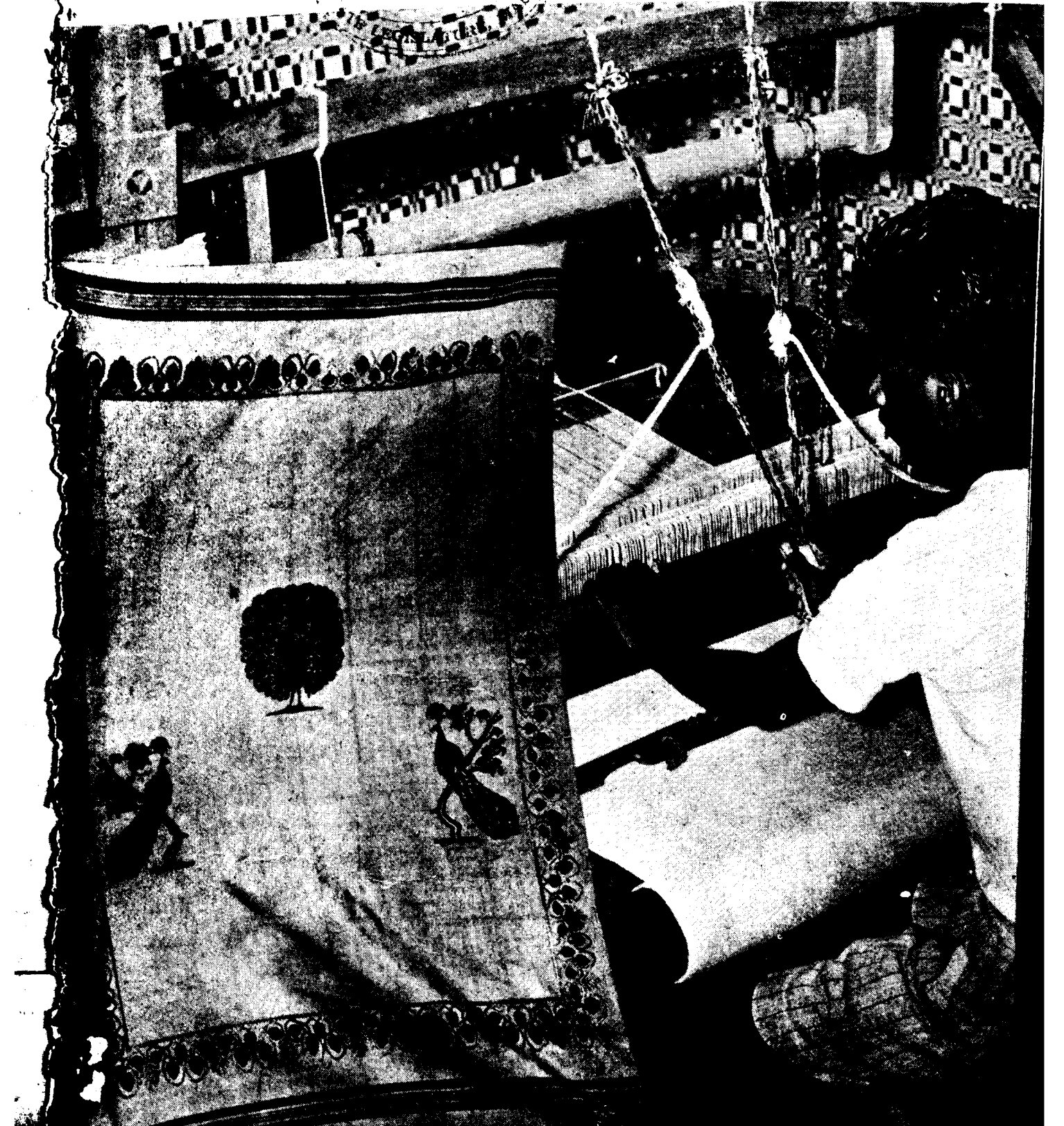
MARCH 1956
Price 3 annas

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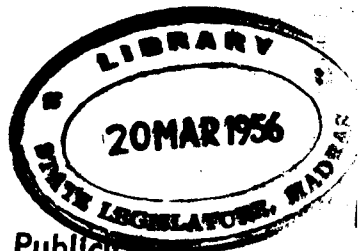
8-MAR-1956





Lushbrook Williams
s. Williams visited
recently. Pictures
their arrival at the
meeting Sri C.
niam, Minister for
and Dr. Williams
ng City Journalists.

Madras Information



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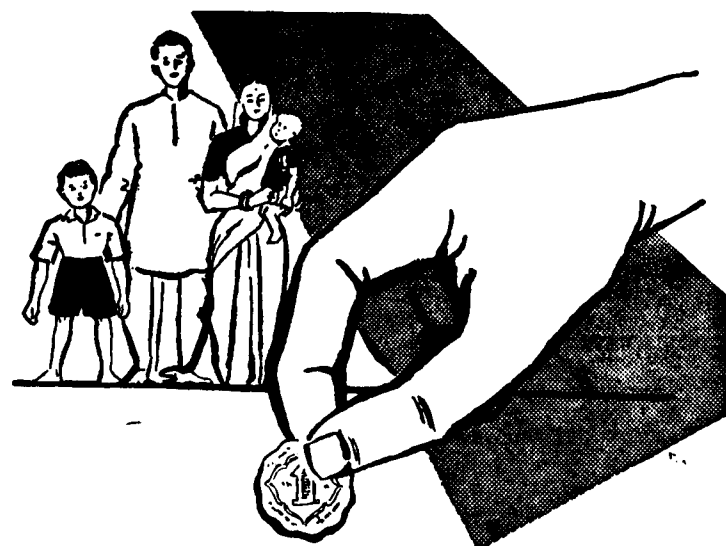
March 1956

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In connection with the celebration of the Handloom Week and the National Savings Fortnight special articles explaining the various aspects of the working of handloom industry in this State and the progress of the National Savings Campaign in Madras Region are included in this issue.

Cover page: Rythm of the loom and the melody of moving fingers merge in harmony.



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15-YEAR
ANNUITY CERTIFICATES
POST OFFICE SAVINGS BANK DEPOSITS

BA 55/64

Neyveli Lignite Investigations

The investigations in progress, with the object of drawing up an integrated project for the mining, processing and utilisation of lignite in the Neyveli area in the South Arcot District, are rather technical, and may not be easily intelligible to the lay-man, without some explanations of what they are about. An attempt has been made to explain in the form of questions and answers, what is being done and what the objectives are. The opportunity has been taken to give some further information on certain points.

Question.—There is a lot of talk about Lignite in the Neyveli area of the South Arcot district. What exactly is Lignite and how does it occur at Neyveli?

Answer.—Lignite occurs not only in the Neyveli area of the South Arcot district but also elsewhere in the country; but the Neyveli Lignite is probably of better quality. As regards what Lignite is, it is an inferior type of coal, brittle, tan brown in colour, and light to the feel. It is formed from vegetal matter, the transformation taking place in two stages. Millions of years ago, the rate of plant growth was probably much more rapid. The accumulation of the plant material and biochemical decay resulted in peat, which is just rotten wood. This was the first stage. The second stage was probably brought about by the pressure of soil, deposited over the ages on account of floods and movements of earth's crust, stopping the bacterial action and initiating the consolidation and dehydration of the peat into Lignite. When the pressure on the Lignite, particularly horizontal thrust pressure, is further increased, the Lignite is made more dense and less in volume, giving coal. In the case of the Neyveli Lignite, the deposition of soil and the movement of the earth's crust seems to have been over vegetal matter growing over water-logged areas. Probably this resulted in artesian aquifers, i.e., water bearing strata,

being found below the Lignite, apparently connected to one or more water courses which survive today. At Neyveli, such water bearing strata consist of uncompacted sand, the water occupying the interstices between the sand particles. These water bearing strata exert an upward thrust on the Lignite which is kept in check by the weight of the Lignite and the overburden above it. There are several such water-bearing strata below the Lignite at Neyveli.

Q.—What is the quantity of Lignite available in the area? Why can't it be just dug and taken out?

A.—The experts have calculated that there are 2,000 million tons of Lignite over an area of 100 square miles of Lignite bearing lands. The upward pressure of the water bearing strata on the Lignite bed has been estimated to be about 6 to 8 tons per square foot. This makes it difficult to extract the lignite by just digging it out.

Q.—There should be no difficulty in pumping the water out and then removing the Lignite?

A.—Yes. Pumping will be needed. If the overburden is removed without controlling the water, the confined artesian water may heave the Lignite up, break through and flood the mine, damage the mining machinery and imperil the lives of the workers. There is no need to pump out all the water. In fact this may not be practicable. All that is necessary is to remove some of the water, to lower the water table in the immediate locality, to a depth of at least 50 feet below the base of the Lignite, thus reducing the pressure of water, after which only the Lignite can be taken out safely. On the basis of the reduction in the water level secured by pumping from a few holes, using small capacity pumps, experts have calculated that, to mine and remove Lignite safely from an area corresponding to a mining strip in regular open-cut mining, by effecting

a local depression of the water-pressure, it would be necessary to pump out about 20,000 gallons of water per minute from the aquifers below the Lignites, over a period of about 100 days. It would obviously be imprudent to start a huge project, costing several crores of rupees, on the strength of calculations based on an inappreciable lowering of the water level with a few small pumps. To make certain of the extent of pumping needed, a full-scale pumping test is to be carried out, with 20 pumps of a capacity of 1,000 gallons per minute each, in two rows of 10 pumps each, the rows being 250 feet apart, and a rectangular grid covering a length of 1,000 feet. A few single pump tests to determine the draw-down of water level over a period of pumping, and the time taken for the water to rise up to its usual static level after pumping has been stopped, are also proposed to be conducted.

Q.—Will the pumping be from bore wells? What is the depth?

A.—Yes. The bore wells are about 400 feet in depth from the surface. The overburden above the Lignite extends to a depth of about 160 feet to 250 feet from the ground in the area, and the thickness of the Lignite seam varies from 0 to 89 feet, with an average of about 55 feet. If the water table has to be reduced another 50 feet below the Lignite, it follows that the pump wells must be drilled to about 400 feet below the ground. They will then deal with the water in the first two aquifers below the Lignite. It will not be necessary to bother about the remaining aquifers still further down.

Q.—How can you be sure that you have lowered the water table below the Lignite after pumping?

A.—A number of smaller holes, 21 in number, have been drilled to about the same depth, viz., about 400 feet, at a number of places in the vicinity of the grid to measure the level of

water from time to time as the pumping goes on. In four more holes, automatic recording instruments have been put in for a continuous measurement of the water level. If the water level in the observation and recorder holes goes below the level of the Lignite to the extent required, then the pumping has been effective.

Q.—What is to happen to the water pumped out?

A.—In the proposed project proper, all the water pumped may be needed for operating the component schemes. Any surplus can be made available for irrigation or other purposes. The water pumped out during the Pumping Tests will be passed into existing irrigation tanks.

Q.—Is there any other object underlying the Pumping Tests?

A.—The pumping tests will show whether the water pressure can be lowered to a safe level and kept under control by a pumpage of 20,000 gallons per minute. They will also give an idea of the amount of power needed and the total expenditure that will have to be incurred in reducing the water pressure over a given area. We can, then evaluate the cost of de-watering, a component of the cost of mining and winning the Lignite, which will, of course, include also the cost in respect of mining machinery, labour, repairs of pumps, interest charges on capital equipment and so on.

Q.—What is the diameter of the bore holes, both for pumping and observation, and how do you ensure that the holes will not cave in and fill up?

A.—The caving in is prevented by putting steel pipes throughout the entire depth of the well, with slots in the casing in that portion which will come opposite the water bearing strata. To be able to use pumps with a capacity of 1,000 gallons per minute the inner diameter of the steel pipes must be about 18 inches. To insert pipes of this large diameter, the holes themselves must be drilled with a diameter of about 26 to 27 inches. The observation holes are of course smaller, with steel casings of only about 4 inches, the portions coming opposite the water bearing strata being of course slotted. For the casing pipes required for the tests (as well as for actual mining, if the tests prove successful) very large quantities of steel which is difficult

to get, are necessary. The annular space, between the well as drilled and the outer side of the casing, is filled with gravel, so that only the water, and not the sand and other material in the water-bearing strata, passes into the casing through the slots.

Q.—What can be done with the Lignite after mining it?

A.—A number of things. It can be used as fuel even in the raw state, and also after the moisture has been removed and/or it has been briquetted. The Lignite can also be carbonized and the carbonized briquettes will be a smokeless fuel, probably better than charcoal. Lignite can serve as a cheap fuel and this will help to preserve our forests and also release valuable cow-dung for manuring purposes. In the process of carbonization, a lot of volatile matter is given off and this can be processed into a number of products including tar and diesel oil, petrol, etc. The gases can be used to produce ammonium sulphate with the help of gypsum or sulphur.

Q.—Can't the Lignite be used for a thermal power station?

A.—This is one of the main objectives of the Government. The intention is to install a thermal generating plant with a capacity of 200,000 K.W. and burning Lignite as fuel. Wherever Lignite is mined elsewhere in the world, it is used at site to raise steam for thermal power plant. The next objective is to produce about 200,000 tons of fertilisers at Neyveli and also three quarter million tons or more of carbonized lignite for use as domestic and industrial fuel. The idea is to have those schemes as integral parts of a large Project. Later it may be possible to contemplate the production of synthetic fuels such as diesel oil, petrol, etc.

Q.—Have they made an analysis of the Lignite?

A.—Yes, small samples have been analysed. As mined, it contains from 50 to 60 per cent moisture. On a dry basis it contains 65 to 70 per cent of carbon, from 20 to 25 per cent of oxygen and about 5 per cent of hydrogen. There are also present small amounts of nitrogen and sulphur, together about 1.5 per cent. The calorific value of the dry Lignite is about 11,000 to 12,500 British Thermal Units per pound. The amount of ash is between

3 and 10 per cent. The Lignite burns readily and the volatile content makes it easy to produce gas from the Lignite for various purposes, in the process of carbonisation.

Q.—Would it be prudent to draw up a Project on the basis of analyses of a few small samples?

A.—No. A bulk sample of 30 tons has been taken out recently, with some difficulty, by cutting out only the top part of the Lignite seam (and leaving the rest as a buffer against the water pressure below the seam) from a trial quarry, and sent to the well-known German Analysts, Lurgis, for complete tests including results of low and high temperature carbonisation. The final scheme must of course take account of the results of these elaborate tests.

Q.—Why has such a long time been taken to start the Pumping Tests?

A.—Calculations had to be made on the basis of small scale experiments to decide on the extent of pumping needed, the numbers and sizes of the holes to be drilled and the capacity of the pumps. The specifications of the pumps had also to be determined. No fewer than 23 pump holes of which 20 will be in a grid, 20 observation holes and 4 recorded holes had to be drilled, cased and developed, to allow the free flow of water into the wells, before the pumping tests could start. To drill a hole with a diameter of 26 to 27 inches to a depth of 400 feet is no easy matter and takes time. It had to be done in three 'goes' first to a smaller diameter such as 16 inches which is enlarged in the second stage to 24 inches and finally further enlarged to 27 inches. The drills themselves had to be imported, as well as the large capacity deep-well pumps, as all these items are not manufactured in India. The men had also to be trained on the spot. All the drilling was completed and the holes cased by about the end of November, but the development of the holes to get rid of the drilling mud and also sand and to make the water in the aquifer flow easily into the wells took about 5 to 6 weeks. Unless the holes are developed, there will be no free flow of water into the wells with the result that the pumping out of only a small amount of water in the well would by no means effectively reduce the water table in the area. It also takes time to install the pumps in each deep well. Out of the 24 pumps

ordered, 16 have arrived at site and the remaining 8 which have only recently been shipped from Germany are expected to reach the site by the end of March. The large-scale tests in the grid of 20 wells are to be started with 16 pumps, four more being added as soon as the last batch of pumps have arrived. As the water has to be lowered to 50 feet below the Lignite, the pumps must work in the wells at a depth of 320 feet from the ground, during the later stages of the test.

Q.—What types of pumps will be used?

A.—Some will be turbine pumps with the motors above the ground and some will be submersible pumps with the motors under water. It is proposed to try both these types.

Q.—Could not the same pumpage be secured by using a larger number of smaller pumps in smaller diameter pump holes?

A.—The possibility will be incidentally looked into on the basis of the results of the pumping tests. It might no doubt be easier, quicker and cheaper to put down and case smaller diameter holes, but the total cost of a larger number of smaller pumps and their consumption of current, might be greater than the corresponding figures for larger pumps. Also, considering the magnitude of the pumpage to be maintained larger bore-wells would be better and probably safer. The two sets of considerations will have to be balanced. The trouble is that nowhere in the world does Lignite occur with artesian high pressure aquifers below it. The problem presented by Neyveli Lignite is rather unique and has taken time to study and deal with.

Q.—When will the Project be inaugurated? What component schemes will be taken up first?

A.—Some time will be required to analyse the results of the pumping tests and the cost figures thereof. After this analysis, the Government should be able to have a detailed project report drawn up by their foreign consultants and checked by their own experts. The economics and cost figures of the project will then be carefully considered and the project sanctioned. Roughly speaking, if all goes well, the sanction may be accorded before August 1956. The first, and virtually the fundamental part of the scheme,

would be the development of the mine. It is only after Lignite has become available, that the other parts of the Integrated Project such as the power plant, the fertilizer plant and the carbonising and briquetting plants could begin to function. The economics of these schemes will depend on the cost of winning Lignite.

Q.—When is Lignite expected to be available for utilization?

A.—The development of the mine will take some time and in the initial periods the quantities of Lignite mined will be small and will be progressively built up as development proceeds. It is expected that reasonable quantities would become available from January 1960, when the first 50,000 K.W. unit of the power plant will probably commence operation. It is hoped to extract at least about a million and a quarter tons by the end of 1960. The rate of production will be considerably higher in 1961 and will go on progressively increasing till the target figure needed for the entire scheme is reached.

Q.—When is the fertilizer plant expected to go into production?

A.—By June 1960. Every effort will be made to commence the operation of the briquetting and carbonising plant much earlier.

Q.—Is nothing more to be done between the date of completion of the pumping tests and the date of sanction?

A.—Plans are being drawn up for preparing the ground with easily available conventional machinery, so that when special excavation machinery arrives, it can be put into operation without delay. Detailed specifications of the conventional and special mining machinery needed have already been worked out and tenders for supply called for, pending the completion of the pumping tests. The Power Station and Fertilizer Plant parts of the Project are also being planned and designed. This will take some time, and all plans and specifications are expected to be ready by about the time Government sanction can be accorded. There will, thus be no avoidable loss of time. Immediately after the Project has been sanctioned, and before the specialized mining equipment for the regular development of mining could arrive at site, the construction of quarters and the preparation of the ground with the

help of the conventional equipment could be completed. Orders could also be placed for the power plant and fertilizer plant and also the carbonising and briquetting plant and construction of buildings therefor taken up. In short, a detailed programme will soon be drawn up, phasing the work of construction as well as the development mining, pending the receipt of the results of the tests and the sanction of the Government to construct the Project. The most favourable area in the locality will be taken up for mining first. It has been estimated that this area contains 200 million tons of Lignite.

Q.—When are the Pumping Tests to start?

A.—On the 29th February 1956.

Q.—What would happen if the final results of the tests indicate that the water could not be controlled?

A.—This contingency is not likely to arise. The working of 12 or more pumps, for purposes of developing the pump wells prior to the test, resulted in an appreciable draw-down of the water level in the test area. This is most encouraging and suggests that the tests will show that the ground water can be controlled.

Q.—What will be the total cost of the Project and how much Lignite is to be mined?

A.—It is estimated to be about Rs. 70 crores and with the expenditure we should be able to mine and utilize about three and a quarter million tons of Lignite per annum. If it is found that the Lignite can be carbonised suitably to obtain a satisfactory type of coking material, it should be possible to use the material in a low shaft furnace along with the Salem iron ores to produce steel. If the use of Lignite-raw of carbonised as fuel becomes popular and if steel production and the production of synthetic fuels would be possible and economic, much larger quantities of Lignite than three and a quarter million tons per annum would have to be mined. It is not possible now to estimate the additional quantity to be mined.

Q.—Is anything being done in the matter of steel production in Salem?

A.—The possibility is very much in the minds of the authorities concerned. The East Germans have developed

the low shaft furnace method for producing steel with the help of an inferior type of coke obtained from their Lignite. The Neyveli Lignite does not appear to be inferior to the German Lignite. If this is correct, there may not be much difficulty in producing a suitable type of coke. The crux of the matter would be the cost of the coke. If the cost of coke needed per ton of the finished steel would not be greater than the cost of pucca coking coal available elsewhere in the country, there should be no difficulty in launching upon a steel project in the Salem district after winning of Lignite has developed.

Q.—Does the same sort of thing apply to the production of power?

A.—Power has become a vital and essential requirement in the South. In particular, strong thermal backing is necessary for the hydro-electric power already available and to be generated from future hydro-electric projects. So long as the cost of the Lignite per unit of its thermal value is not more than the similar cost of coal brought into Madras from the coal fields in Northern India, the power project must of course be taken up at Neyveli, utilizing the Lignite available there. The cost of coal per ton as delivered at Madras is high, and it does not seem that under the worst possible conditions the cost of Lignite of equivalent thermal value would be more. The power project will, therefore, be a certainty. The other component parts of the Integrated Project will also be economic propositions. The Government may be trusted to go into the economics of the component schemes fully and do what will be best in the tax-payers' interests.

Q.—How many men are likely to be employed in the Project?

A.—About 5,000 to 7,000 of all grades. Of course the entire operations must necessarily be highly mechanized. When the township of the Project comes into being, the usual services including trading personnel will also come in and the employment potential may be nearly for 10,000 people.

Q.—What is the total extent of land that will be taken over for purposes of the Project?

A.—All the land required to mine the Lignite and operate the Project

during the first forty or fifty years would be acquired quickly in the first instance. This would be 29,000 acres. Another large area of about 19,000 acres would be acquired later with reference to needs. The question of acquisition of further areas would be thought of some years hence.

Q.—What is to happen to the people now owning or cultivating lands in the area, when the lands are taken over for mining and other purposes under the Project?

A.—They will be resettled on other suitable Government lands in the district. Detailed and liberal proposals for the rehabilitation of those who will be dispossessed are being drawn up on the lines of what was done in the Lower Bhavani and Tungabhadra Projects. The cost of the rehabilitation will be part of the cost of the Project.

Q.—How long will the Integrated Project take to complete?

A.—It should be possible to complete the major part of the Project within the period of the Second Five-Year Plan, provided construction work and development of mining are started not later than early 1957. This is probably the largest project for the South proposed for inclusion in the Second Five-Year Plan. If the Project materialises it would transform the economic condition of the South and enable the South to achieve a more balanced economy.

Q.—It was reported some months ago that the East Germans had offered assistance. Have the Government of India engaged the services of the East German Experts and have they arrived?

A.—A number of Experts from East Germany are now at Neyveli on an informal visit, studying the data available and the conditions at site. It is expected that after completing their study, they will indicate the possibilities and in what respects East Germany could assist in the planning and construction of the Project.

Q.—When are the East German Experts likely to complete their study?

A.—That is a matter for them. They are not officially connected with the Project. It is however believed they will take a month or so.

Q.—The fertilizer plant will need some gypsum or sulphur. Where are they to come from?

A.—There are large gypsum deposits in Tiruchirappalli district. Gypsum could also be imported through the Cuddalore Port. It is not proposed to use sulphur but gypsum which is a compound containing sulphur.

Q.—Is there any China Clay available in the area?

A.—Some of the strata in the area consist of ball clay and China Clay of fairly good quality. This clay will be excavated during the mining operations.

Q.—Can't ceramic industries be established to utilize the clay?

A.—Yes. The question of a clay washing plant and the establishment of ceramic industries, particularly for the manufacture of crockery, sanitary-ware and electrical porcelain, is under examination by the Government of India and the Government of Madras. The clay could also be supplied to other existing ceramic units in the South.

Q.—Is there any proposal to put up a plant for the production of synthetic fuels?

A.—The feasibility and economics of such a plant are being examined in consultation with experts. Until the results of tests and analyses of bulk samples now in progress become available, it would not be possible to say whether the tar which would be a by-product of carbonisation would be suitable for hydrogenation, to produce the synthetic fuels.

Q.—Which Government has been financing the investigation? The Central Government or the State Government?

A.—The State Government were conducting the Investigations at their cost, assisted to some extent with funds provided by the Technical Co-operation Mission for pilot excavations in the trial quarry. The Government of India have accepted full financial responsibility for the expenditure on the Investigation from the 1st January 1955.

Q.—Are the Investigations administered by and under the control of the

Government of India or the Government of Madras?

A.—The Government of Madras were in charge of the administration and control of the Investigations till the 15th of September 1955, from which date the Government of India in the Production Ministry have taken over the direct control and administration of the Investigations and the planning and execution of the proposed integrated project.

Q.—What was the total expenditure incurred by the Madras Government on the Investigations?

A.—An expenditure of Rs. 103 lakhs was incurred by the Madras Government from 1945-46 to the end of 1954. From 1st January 1955 up-to-date the expenditure incurred by the Central Government on the Investigations amounts to about Rs. 65 lakhs.

Q.—What is the administrative set up in control of the Investigations?

A.—The field staff consists mainly of technical personnel such as Engineers, Chemists and others, under a General Superintendent. When the Government of India took over direct control of the Project from the 15th of September 1955, a full time Chief Executive Officer and an administrative staff under him were appointed with headquarters at Madras, to be in general charge of the Investigations. The General Superintendent and the field staff work under the control of the Chief Executive Officer. There is also a Lignite Project Co-ordinating

Committee consisting of six representatives of the Central Government, including the Chief Executive Officer, and two representatives of the Madras Government, to be in general charge of the Investigations and to make recommendations to the Government of India on all matters relating thereto. This Committee meets from time to time and is assisted by a Standing Committee of Technical Experts, consisting of appropriate technical officers of the Government of India and Madras. The Project Co-ordinating Committee has been charged with the duty of completing the Investigations and submitting proposals for an integrated project for the mining, processing and utilization of the Lignite.

Q.—Are any Consulting Engineers employed?

A.—Yes. In 1954, the services of Powell Duffryn Technical Services, Limited were obtained under the Colombo Plan as Consulting Engineers to study the data available and to prepare a report on the mining, utilization and processing of the Lignite. On the basis of the recommendations in their report which was submitted at the end of 1954, the pumping test and further investigations are being carried out. The services of Powell Duffryn Technical Services, of Powell Duffryn Technical Services, Limited, have been continued for a further period within which the Consulting Engineers have to submit proposals for the initial removal of the overburden and for the development of the mine to achieve the production target contemplated.

Facts and Figures

The Sindri Fertilizers Factory, which went into production in October 1951, has so far produced over one million tons of fertilizers, equivalent to a saving of Rs. 33 crores in foreign exchange.

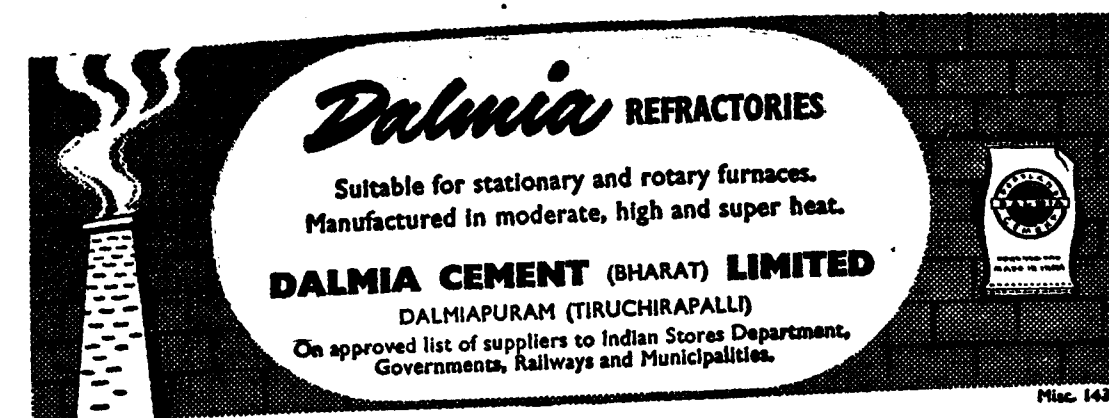
There are at present 105 co-operative societies on the seven zonal Railways. The co-operative movement on the Railways had its origin in the setting up of certain co-operative stores as far back as 1890.

Crop competitions in recent years have proved to be one of the best means of inducing farmers to adopt improved techniques. Their popularity can be gauged from the fact that there were 191,000 competitors in 1953-54 as against 19,000 in 1949-50.

The additional foodgrain production resulting from Crop Competitions in 1953-54 was about 20 lakh maunds.

The earnings of Indian Railways from air-conditioned class from April 1st to 31st October 1955 were Rs. 35 lakhs as against Rs. 28 lakhs during the corresponding period of the previous year. During the current financial year 32 air-conditioned coaches have so far been put into service. In the previous year, the number was 21.

Uttar Pradesh has the largest number of power-alcohol-producing units. Out of a total of 19 in the country, 12 are in the State.



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Standardisation of Handloom Products

By SRI A. PALANIAPPA MUDALIAR, M.A., Registrar of Co-operative Societies

The handloom industry constitutes the premier cottage industry in India. At the production end of the industry there are more than 20 lakhs of active weavers who are masters of their crafts and have inherited a high degree of skill handed over from generation to generation. They can adapt themselves to any pattern of production easily and quickly adjust themselves to shifts in the tastes of the consumers. An equal number of workers assist these weavers in the processes preparatory to weaving like winding, warping, sizing, etc. At the consumers' end the field is vast. Not only India but several foreign countries provided an extensive market for Indian Handloom goods. The number of potential consumers is therefore large and unlimited.

The present annual production of cloth on handloom is estimated at 1,600 million yards. It has been proposed to double the production in the Second Five-Year Plan period to keep pace with the growing needs of the country arising from expected increase in the per capita consumption of cloth and the increase in population. The increased production is sought to be achieved by reviving all inactive handlooms and providing fuller work to partly active looms thus ensuring to the handloom weavers adequate work.

The importance of the handloom industry as a provider of employment for lakhs of weavers is therefore great. No doubt, the charm of the handloom lies in the variety of detail of design that can be produced with it. But this charm will have to be preserved and sustained continuously by taking steps calculated to retain the patronage of the consumer. An important step to organise the handloom industry on a sound footing is standardisation.

Need for Standardisation

The handloom cloth has to contend with several difficulties both at home

and abroad. There is the formidable rival in the shape of mill-made cloth at home. The standard of living of the common man in India is rising. The consumer who looked to the price factor alone formerly is now particular about the price in the context of quality. In several foreign countries also a remarkable change has come over. Their political maps have been redrawn, and they have attained independence. They have been taking steps to develop their cottage industries including textiles, and placed several restrictions in the shape of total or partial ban on imports. For example, the Burma Government totally prohibited the import of handloom goods like *lungies*, *sarees* and *dhoties*. In Ceylon the local handloom industry is sought to be protected by regulating the import of textiles from abroad. It is required that an importer should purchase a prescribed

quantity of named local product before he can import textiles. The Indonesian Government has banned the import of Indian handwoven *sarongs* which in the past used to be imported in very large quantities through Singapore and from India direct.

It must be admitted that the handloom cloth suffers from certain pronounced defects which affect its sales in the markets available to it. The Fact Finding Committee (1941) has listed them out as (a) lack of uniformity in texture, (b) inexactness regarding dimensions and (c) lack of finish, etc. Lack of standardisation in this and other respects and generated an apathy on the part of the consumer and resulted in a decline in the market. We find that a cloth said to be of five yards length is not sometimes so long. In some cases yarn of different counts, say



Sri M. Bhaktavatsalam, Minister for Agriculture, at the Handloom Products Exhibition.

60s and 80s is mixed up. There have been several cases where colours guaranteed fast, faded away quickly. These practices are obviously resorted to for reducing the cost of production; but the consequence of such practices is a loss of confidence in the quality of handloom cloth, even amongst those who will like to patronise it.

Owing to lack of standardisation it is difficult to arrange for bulk sales either in the home market or abroad. It is not possible for outstation merchants to place their orders with weavers. Export of handloom cloth has also been considerably affected by lack of quality of the handloom fabrics.

Steps to promote quality and enforce Standardisation

A fabric has to be judged as a quality product with reference to utility value, beauty, elegant weaving, durability, draping quality, harmony, economy and purpose. The aim of all well-wishers of the handloom industry should therefore be to devise such measures as to ensure the production of handloom cloth on lines which will promote quality as indicated above. It is, therefore, necessary to lay down a standard first for handloom cloth in the internal market. Against this standard, cloth should be inspected and stamped. It has to be ascertained whether there are adequate facilities for inspection and stamping of cloth for the home market and whether handloom cloth can at all meet such requirements. The essential raw material that a weaver uses is the mill yarn, the quality of which he is not sure. The industry has to be assured of the supply of yarn of uniform and standard quality. The next is the construction of cloth. The use of the standard reed assures correct number of ends in the cloth and it is easy to ensure that the weaver uses the reed supplied to him for the production of a specified variety. It is difficult for him to keep to the required number of picks per inch in the cloth; the use of take-up-motion attachment for regulation of picks will however help him in this regard. Another important factor affecting quality of handloom cloth is colour—both its shade and fastness. Yarn is dyed in the hank form by a handloom weaver in small lots. Even though he now uses mineral or synthetic dyes, his apparatus and method remain mainly traditional. Difference in shades between any two lots is therefore inevitable, though

unevenness of shade in the same piece or lot can be prevented by careful dyeing.

The handloom cloth is preferred in several quarters for its embellishment. Art silk, gold thread and synthetic products used along with cotton yarn add largely to the varieties produced on handlooms. The production of cotton fabrics with such admixture is a handicap and such fabrics cannot be easily standardised.

A start may be made with a scheme of standardisation of handloom cloth by guaranteeing length and width, the picks and ends per inch and counts of yarn. The strength of the cloth, particularly of sarees and dhoties depends on the strength of the borders; greater attention should therefore be paid in prescribing for selvages.

Co-operative Method

Control over the production of handloom cloth will have to be exercised at every stage. The co-operative method of production affords great scope for the exercise of that control. In Madras State, about 800 weavers' co-operative societies are affiliated to the Madras State Handloom Weavers' Co-operative Society and get their supplies of yarn from it. This ensures to some extent, the quality of yarn used in production. The society has its own dye houses and technical supervisors. These ensure fast colours and correct dimensions. The wages paid to weavers are regulated by district conferences of weavers' co-operative societies held periodically. This ensures that the cost of production is not inflated by wages being fixed above those obtaining in the industry of the district as a whole. The margin of profit is fixed at a percentage of the cost of production and is determined from time to time. Thus the sale price is kept at a reasonable level.

In the Madras State, the Madras State Handloom Weavers' Co-operative Society has prescribed standards for various varieties of handloom cloth including dhoties and sarees and has formulated a scheme for their enforcement. According to this scheme, about 15 to 20 looms in each of selected societies will be switched to the production of such standard varieties of cloth as may be required by the selling units of the Madras State Handloom Weavers' Co-operative Society. It has been proposed thus to allocate about 10 per

cent of the looms within the co-operative fold to produce standard varieties of cloth. Even though the problem of marketing can be solved only by production of varieties according to standards, more could not be done at present in view of the fact that the average weaver is generally not inclined to improve his method of weaving.

The Madras State Handloom Weavers' Co-operative Society has introduced a system of quality marking and affixes the local 'Co-optex' on all goods produced according to its specifications. To extend the scheme further, the society is arranging to manufacture or purchase more than 16,000 standard reeds at a cost of Rs. 1,66,200 for supply, free of cost, to such of the weavers' co-operative societies as they adopt its standards. Another sum of Rs. 1,33,100 has been sanctioned from the Cess Fund for the purchase and supply of 2,600 devices to regulate picks to members of weavers' co-operative societies. Schemes have also been formulated for the supply of accessories to improve the quality of production during the period of the Second Five-Year Plan. When these accessories are distributed, it is hoped that a large number of members enlisted within the co-operative fold will have taken to the production of goods of standard varieties.

Priority for Quality

The progress of the handloom industry and the consolidation of the socio-economic condition of the millions of handloom weavers depend directly on the marketability of handloom cloth. Marketability in turn hinges on quality production. Quality production should therefore be given utmost priority in any scheme of development of handloom industry. The Union Minister for Commerce and Industry has quite rightly laid emphasis on this aspect in the following words:

"We have however to keep well before our mind the fact that we are only at the beginning of our important task. We have to apply ourselves still more strenuously so that we may help to secure for Indian goods universal acceptances for their quality and dependability. We must continue to strive to evolve larger number of standards and to make those already published more widely popular with consumers in India and abroad as also with manufacturers". This is true of the handloom industry as well.

Handloom Industry in Madras State

By SRI A. HIRUDAYASWAMY, Joint Registrar of Co-operative Societies

The handloom industry is a major village industry in this country, next to agriculture. The artisans that man this industry have made it an occupation since times immemorial. The industry attained a very high degree of perfection in India centuries before machine was invented to produce cloth. The growth of industrialisation, however, affected its fortunes to a great extent. But, even now, it occupies a place of prominence in the fast developing economic pattern of New India.

It is estimated that there are about 28 lakhs of handlooms in India and that about 14 million people are directly associated with it. In the Madras State there are about 5.6 lakhs of handlooms. About 25 lakhs of people depend on this industry directly or indirectly for their livelihood.

Causes for Set-back

The Industry which has been flourishing well for centuries suffered a severe set-back immediately after the second world-war due to several reasons. There was a yarn famine so far as the handloom weavers were concerned. Since 1942, the usual imports of cotton and artificial silk yarn (besides gold and silver thread) had virtually ceased and the Indian mill yarn was hoarded and freely flowed into the black-market for exports and other purposes. The absence of a rational system of procurement of yarn from the mills and its distribution caused severe local scarcity and wide disparity in its price.

Besides, the weaving mills which were geared to maximum production during the war years for clothing the defence personnel, turned their attention to domestic trade after the cessation of hostilities. They took various steps to capture the home market by taking advantage of the change of fashion or in the dress habits of the people.

Above all, there was shrinkage in the export trade of handloom cloth. The conditions in foreign countries have undergone a remarkable change in the post-war era. Several countries have attained political independence. Their leaders are taking steps to foster and develop their home-industries including textiles and in the process have placed several restrictions in the shape of total or partial ban on imports. For example, in Ceylon, the local handloom industry is sought to be protected by regulating the import of textiles from abroad and by insisting on the purchase of a prescribed quantity of local product.

The handloom industry was really in a sad plight in 1952. Government, both at the Centre and in the States, realized that in the large number of handloom weavers, something should

be done immediately to rehabilitate the industry and to consolidate its position in the national economy. The Government of India set up an All-India Handloom Board with the Textile Commissioner as its Chairman in the year 1952, to advise Government generally on the problem of handloom industry and to recommend schemes for its improvement and development with assistance from the Cess Fund. They also issued orders reserving certain varieties of production exclusively to the handloom industry so that it might expand production and enjoy a free market in its sphere of production.

Pattern of the Industry

Before referring to the various schemes formulated and sanctioned by the Government of Madras for the development of the handloom industry



The 3rd All-India Handloom Week being inaugurated by Shri T. T. Krishnamachari, Minister for Commerce and Industry, Government of India, at Constitution Club in New Delhi.

it will be interesting to note the pattern of the industry in this State. There is the independent weaver who purchases yarn, produces cloth on his loom and markets it at a price which the season or his salesmanship can command. He has no facilities for improving the technique of production and, in the context of the present conditions, it is difficult for him to keep his independent existence, earn a substantial income and improve his social and economic condition.

A large number of weavers work under master-weavers. The master-weaver finances production, sets the patterns and designs and arranges for marketing. The weaver working under

him is paid wages at a rate fixed by him without reference to his condition or his toil.

Besides, a large number of weavers work in factories as in Malabar. In a factory, the workers work in one work-spot. But they are not able to enjoy the full fruits of their labour, for the profits go to the proprietor.

A large number of handloom workers have been organized into weavers' co-operatives. The position of a weaver in a weavers' co-operative society is entirely different from that occupied by a fellow-worker under a master-weaver or in a factory. In a co-operative organization a member is a self-employed worker. The co-operative

society supplies yarn, takes back the finished goods and arranges for their sale. A sense of self help, mutual help and thrift is fostered in the society. The members are required to contribute a part of the wages towards their thrift fund which in the course of some years accumulate to a handsome amount. A part of the profits earned by the society is distributed among the members by way of bonus with reference to the quantity of finished goods delivered to the society or the wages earned.

The co-operative organization is therefore the best suited instrument of economic development of the lakhs of handloom weavers. The Government



The Handloom Week Celebrations organized by the State Handloom Weavers' Co-operative Society were inaugurated by Sri Kamraj Nadar on 19th February in Madras. Picture shows the Chief Minister and Sri P. V. Rajamannar, Chief Justice of Madras, who presided over the function.

MADRAS INFORMATION

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of India recognised this position and decided that the co-operative society should be the medium through which they should canalise their assistance to the handloom weavers. They constituted a Cess Fund with a view to finance a number of schemes for developing the handloom industry in the States and for improving the standard of living of the lakhs of handloom weavers.

Schemes for Development

The Government of Madras have sanctioned so far a large number of schemes for the purpose involving an estimated expenditure of Rs. 212.72 lakhs. The schemes relate to several phases of the industry, such as provision of share capital advances to weavers to join the co-operatives, sanction of working capital to the societies to give continuous work to the weavers, the expansion and reorganisation of the marketing activities of the Madras State Handloom Weavers' Society, provision of adequate working capital to facilitate its expansion, supply of improved appliances to weavers and weavers' societies so as to improve the quality and production of the handloom fabrics, sanction of rebate to reduce the sale price of the handloom cloth and place it in the hands of the consumer at lower price, etc.

The schemes were introduced one by one from January 1954. Before the introduction of the schemes, there were 97,642 handlooms in weavers' co-operative societies. Under the Cess Fund Scheme more than 46,000 looms have been brought into the co-operative fold. The number of looms brought into the weavers' co-operative societies has increased by 47 per cent. About 250 new societies have been registered making in all 790 societies. The members who join the societies are provided with interest-free advances by way of share capital up to Rs. 25 each. A sum of about Rs. 8 lakhs was thus issued to the new entrants. The Co-operative Central Banks have made available Rs. 85.37 lakhs to the societies towards working capital from their own resources and from the amount sanctioned to them from the Cess Fund. A sum of Rs. 64.46 lakhs was disbursed to the Madras State Co-operative Bank from the Cess Fund to enable it to provide through Central Banks, working

capital to weavers' co-operatives. The Madras State Handloom Weavers' Co-operative Society has been provided with a working capital of Rs. 40 lakhs from the Cess Fund to expand its marketing activities in the State as well as in the other States of India.

These measures have served to step up production in the weavers' societies and enabled weavers to get more work and increased wages. While the average production of goods per month in weavers' co-operatives during the pre-scheme period was only Rs. 18 lakhs, it has gone up to Rs. 33 lakhs per month after the introduction of the scheme. The weavers' societies pay wages up to 10 annas per knot.

Organisation of Marketing

To find an outlet for the increased production of primary weavers' societies and to strengthen the arrangements for marketing, the Madras State Handloom Weavers' Co-operative Society undertook to work the marketing scheme—internal and external. It has so far opened about 200 retail depots within the State in addition to the 53 depots already existing. Five inter-State depots have been opened at Bombay, Vijayavada, Delhi, Kurnool and Pondicherry in addition to the existing 11 depots. Almost every municipality and major panchayat are served by a retail selling-unit of the State Society in this State. The State Society has put on the road five mobile vans intended to serve as selling-cum-publicity media. The entire State has been divided into six marketing regions, each in charge of a Marketing Officer of the grade of a Deputy Registrar for the purpose of procuring goods from the primary weavers' societies and supplying them to the several selling-units of the State Society.

As a result of these measures, there has been distinct improvement in the marketing of handloom cloth produced by weavers' societies. Formerly the average monthly sale effected by weavers' co-operative societies was about Rs. 21 lakhs. Now the average sale per month has gone up to more than 30 lakhs.

In order to encourage the public to buy more handloom cloth, consumers are given a rebate at the rate of Re. 0-1-6 per rupee in the case of retail sales effected by the emporia of the State Society and the weavers' societies

while fair price shops and consumers' organisations give a rebate of 1 anna per rupee. These enable a consumer to pay only Re. 0-14-6 or 15 annas for every rupee of handloom cloth purchased in retail. The total amount of rebate sanctioned under this scheme was Rs. 49.95 lakhs.

A scheme designed to promote foreign markets for handloom goods in Middle East and Far Eastern countries is being worked by the All-India Handloom Board through the agency of the State Society. Two handloom-cloth-Marketing Officers have been appointed at Singapore and Aden. Handloom-cloth-depots have been opened in Aden, Colombo, Singapore and Bangkok. The depot in Ceylon, especially has effected very good sales, amounting to Rs. 11.00 lakhs during the past seventeen months.

Improvement of Technique

Under the scheme of improvement of technique and research, the State Society has been taking steps to supply looms and weaving accessories to members of weavers' societies such as standard reeds, take-up motion-attachments, semi-automatic looms, dobbies, varnished healds, jacquard looms, etc.

Silk Handlooms

The promotion of the interests of silk handloom weavers has also received the attention of the Government. A start was given in the direction of help to silk handloom weavers by forming a Silk Weavers' Co-operative Production and Sale Society at Kancheepuram. Provision was made initially for the admission of 120 silk weavers including 20 loomless weavers. These weavers were given interest-free advances from Cess Fund up to 75 per cent of the share capital required, for enabling them to become members of this society. Provision was also made to give working capital to this society at the rate of Rs. 500 per loom. Assistance was also given for the supply of looms and accessories, charkas, warping frames, reeds, healds, etc., to the members. The total assistance amounted to Rs. 69,700 under loans and Rs. 7,038 under grants. A loan of Rs. 60,000 has been made available towards working capital.

The society is developing rapidly since the start in March 1955, and has produced silk goods to the extent of

Rs. 56,364 and effected sales for Rs. 50,302. Government sanctioned a Co-operative Sub-Registrar, two Senior Inspectors and a designer free of cost for work connected with the society. With a view to enlarge the scope of its production of quality goods, a pattern-making-unit was set up as its adjunct. This unit was inaugurated by the Union Minister for Commerce and Industry on 2nd January 1956. The Kancheepuram Silk Weavers' Co-operative Society will be expanded soon by the admission of 100 more members with the assistance of Cess Fund to the extent of Rs. 63,600 by way of loans and grants. Another Silk Co-operative Marketing Society has also been started at Kancheepuram for helping the independent silk handloom weavers who are prepared to produce silk handloom fabrics on their own account.

Schemes were also formulated for the formation of silk weavers' co-operative societies in Thirubuvanam, Kumbakonam, Arni and Salem on the lines of the Kancheepuram Silk Society. The Manumbuchavadi Weavers' Co-operative Society has also been reorganised and converted into a silk-cum-cotton weavers' society with the assistance of the Cess Fund.

Conditions in Malabar

The conditions facing the handloom industry in Malabar are peculiar. Most of the handloom weavers are working in handloom factories. Steps were taken to organise two industrial co-operatives in that district by taking over the closed factories at Chova and Totada. Government sanctioned Rs. 1.12 lakhs for the purchase of these factories along with the looms and other accessories and provided for a part of the share capital and working capital to run the industry. The free services of a Co-operative Sub-Registrar for each of these two factories were also provided. These two co-operatives were started six months back. They provide work for more than 150 members and produce shirtings, furnishing fabrics, etc. They have produced so far goods to the value of more than Rs. 60,000 and effected sales to the extent of Rs. 57,000. The workers in the co-operatives are now assured of continuous employment and reasonable wages. The Union Minister for Commerce and Industry when he visited

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Madras sometime back inspected some of the samples produced by these institutions and expressed great satisfaction at their excellence.

Two housing colonies (of 200 houses each) for the benefit of the members of Ammapet Weavers Co-operative Society in Salem district and the weavers' co-operative societies in Aruppukottai area of the Ramanathapuram district will be started shortly. They will cost about Rs. 18 lakhs. Two more schemes for setting up housing colonies for the benefit of the members of the Kallidai-kurichi Weavers' Co-operative Society and the Coimbatore Devanga Weavers' Co-operative Society are under the consideration of Government.

Handlooms in the Second Plan

The development of handloom industry has been given due consideration in the State Plan drawn up for execution during the Second Plan period. A sum of Rs. 4 crores has been earmarked for the development of this industry. At the end of the Plan period, more than 50 per cent of the handlooms in the State would have been brought into the co-operative fold. A provision of Rs. 162.68 lakhs for issuing interest-free advances towards share capital for weavers to join weavers' co-operative societies and providing working capital to the co-operatives has been made. Fifteen housing colonies of 100 houses each will be established at a cost of Rs. 70.36 lakhs. Model pattern-making factories will be set up as adjuncts to 25 weavers' societies at a cost of 3.91 lakhs. Ten industrial co-operatives will be formed at a cost of Rs. 6.76 lakhs.

Provision for the supply of several kinds of accessories free of cost aimed at improving the technique of production has also been made. Two thousand weavers will be trained in improved methods of weaving. A provision of Rs. 41.25 lakhs has been made for opening 100 new depots. It is hoped that the provision made in the Second Five-Year Plan will further help to stabilize the industry and improve the condition of the handloom weavers.

Trying Period Over

The various measures initiated by Government have tended to stabilise the industry. It can be said without fear of contradiction that in Madras State particularly, the condition of

handloom weavers has improved appreciably. There was a time especially in the dark days of 1952 and 1953, when alarming news appeared in the Press. From many a platform there was representation about the plight of the handloom industry. The Press in the country spotlighted the need for a firm handling of the situation and called for some concrete assistance to the industry. The Government of Madras were fully alive to the needs of the hour. They took up the situation in hand and by a series of measures financed from the Cess Fund are improving the condition of the weavers steadily.

Today, happily, the trying period is over and the initial difficulties have been overcome. The handloom weavers can look forward with confidence to an era of consolidation of the position under the Second Five-Year Plan through the aegis of co-operative organisations.

(Courtesy A.I.R.)

Snippets

The Employees' State Insurance Scheme at present covers about 10 lakh factory employees.

The estimated total cost of rolling stock required by the Railways against the 1955-56 programme is Rs. 108.40 crores. This includes cost of 622 locomotives, 37,600 goods wagons (in units) and 1,298 ordinary passenger coaches.

The total gross sea and land customs revenue collected in the Indian Union during September 1955 amounted to Rs. 14.16 crores as compared with Rs. 13.02 crores in the corresponding month of the previous year.

During the same month, the total gross collection of Union excise duties amounted to Rs. 12.38 crores as compared with Rs. 8.52 crores collected in September 1954.

The Indian Railways lifted on an average 255,000 tons of goods per day in October 1955. In terms of food-grains, this quantity would be sufficient to feed 1,600,000 people for a year at the rate of 16 ounces per head per day.

Silk Handloom Weaving Industry

By SRI P. AUDIKESAVA MUDALIAR, Special Deputy Registrar for Weavers' Co-operative Societies

The Silk handloom industry is one of the oldest cottage industries in India. For centuries, the skilled silk handloom weavers had been producing artistic silk fabrics which were sought after by Imperial Courts. Though silk is considered an article of luxury, it is used on all important religious or festive occasions by all strata of society.

Silk handloom industry is mainly concentrated in the States of Madras, Assam, Mysore, Uttar Pradesh and Bombay. The Fact Finding Committee (1942) stated the number of handlooms engaged in silk and art silk as 3.46 lakhs. According to the recent report of the Village and Small Scale Industries (Second Five-Year Plan) Committee, the total number of handlooms engaged in silk and art silk weaving in the country is about 2 lakhs. Assuming that 3 persons are connected with weaving or processes connected with weaving relating to one loom, at least 6 lakhs of persons depend directly or indirectly on the silk handloom industry. In view of this important fact, the need for the development of this industry has been realised.

The Government of India constituted a body called the Central Silk Board and charged it with the responsibility for the development of this cottage industry. As the resources available with this body were limited, it was suggested that assistance from the Cess Fund constituted for the development of the handloom industry should be made available for fostering the silk industry also. The Standing Committee of the All-India Handloom Board considered the matter and recommended to Government that the Central Silk Board might be made responsible for the development of silk up to the stage of weaving and the All-India Handloom Board might be responsible for all aspects from the stage of weaving. The recommendation was accepted and assistance from the Cess Fund was made available for the silk handloom industry broadly on the lines of the general principles applicable for cotton handloom industry.

Marketing

The Standing Committee of the All-India Handloom Board also recommended to the Government of India

that the marketing of silk handloom fabrics overseas should be dovetailed with the external marketing scheme for cotton handloom fabrics and that a grant of Rs. 50,000 should be initially sanctioned to enable samples of silk fabrics being bought and sent to the handloom cloth marketing officers appointed under the external marketing scheme. Government accepted the recommendation.

Silk Weaving in Madras State

In the Madras State, the silk handloom industry is flourishing in several centres like Kancheepuram in Chingleput district, Kumbakonam, Manambuchavadi and Mayuram in Tanjore district, Madurai, North Arcot, Coimbatore and Salem districts. The silk weavers can be classified into two distinct categories with reference to the pattern of employment. Due to the high cost of raw material and the need for a larger outlay on silk than on cotton yarn, the number of independent handloom weavers plying the silk industry is not considerable. A large number of such weavers are therefore

working under master weavers. Under this system, the raw material is supplied, the pattern and design are evolved and marketing is undertaken by the master weavers. The coolie weaver is responsible only for weaving and the wages paid to him for often not in conformity with the work involved or the profits earned by the master weaver. The system benefited only the master weaver but did not conduce to the betterment of the economic condition of the poor silk handloom weavers. The well wishers of the industry became anxious that something should be done to improve the condition of this section of the community. It has been considered that development of this industry could be properly ensured through the medium of co-operatives organised for the benefit of silk weavers and that all forms of assistance to these people should be canalised through them.

Co-operatives for Silk Weavers

A start was given to the scheme of State-wide organisation of silk weavers co-operatives by the formation of a silk weavers' co-operative production and sale society at Kancheepuram. The atmosphere was quite favourable in that place for the formation of such a society, as there was keen agitation among silk weavers that they were not getting reasonable wages and that they were denied a fair share of the fruits of their toil.

To help these weavers, a silk weavers' co-operative society was started in the place. Provision was made initially for the admission of 120 silk weavers including 20 loomless weavers. The value of each share was fixed at Rs. 100. Twenty-five per cent of this amount should be contributed from the weavers' own resources and the balance will be contributed by the Government as interest-free advance from the Cess Fund recoverable within two years. Provision has also been made to give working capital at the rate of Rs. 500 per loom. This scheme envisages supply of looms and accessories, char-kas, warping frames, reeds, healds, etc., to the members. Its total cost amounts to Rs. 69,700 under loans and Rs. 7,038 under grants. The society was started on 6th March 1955. There are at present 124 members on the rolls with a paid-up share capital of Rs. 10,125. Its area of operations extends to the municipal limits of the Kancheepuram town and some surrounding villages.

Eighty-six looms are working for the society. A loan of Rs. 60,000 has been made available towards working capital. Accessories to the extent of Rs. 2,780 has been purchased and supplied to the members. It produced sarees of six to nine yards length, pavadais and blouse—pieces of good quality.

The Madras State Handloom Weavers' Co-operative Society, the Handicrafts emporium and the All-India Handloom Board are the main purchasers of the society's products. Government have sanctioned a Co-operative Sub-Registrar, two Senior Inspectors and a designer free of cost for work connected with the society. The society is shaping well and its products gaining popularity.

Encouraged by the working of the silk weavers' co-operative society, it was felt that further steps should be taken to bring in more weavers within the existing silk weavers' co-operative society. It was also decided that an adjunct should be set up to this society to function as a pattern weaving unit to evolve novel designs and produce representative samples. The expansion of the society will be brought about by the admission of 100 more members, with the scale of assistance from the Cess Fund which is admissible to silk handloom weavers joining the co-operative fold. The total cost of the expansion scheme will amount to Rs. 58,000 under loans and Rs. 5,600 under grants from the Cess Fund. This scheme will be implemented soon after the number of looms provided for in the original scheme is admitted into the society.

The Pattern-making Unit

The pattern-making unit of the society which the Union Minister for Commerce and Industry inaugurated on 2nd January 1956 is designed to promote quality weaving of silk handloom fabrics. It will evolve good designs and produce samples to suit the varying tastes of the consumers in different parts of India, as well as in foreign countries. Kancheepuram fabrics could be made more popular by adopting designs which will attract the consumers. The looms are installed in the society's premises. Each design will be one to one and a half yards in length and will embody all the features of a fully woven saree or other fabrics. Government has sanctioned

a grant of Rs. 40,000 to set up this unit. It is manned by expert weavers. The starting of this unit has satisfied a felt need in regard to the improvement of the technique of production and of quality of silk handloom fabrics woven in the society, and tended to exercise a healthy influence over the quality of production in the area.

Silk Co-operative Marketing Society

It was felt that steps should also be taken to help individual handloom weavers who were prepared to produce silk handloom fabrics on their own account. Accordingly an independent marketing society was formed to undertake the marketing of the goods produced by independent weavers as their agent at rates advantageous to them. The scheme for the formation of this society contemplated the admission of 100 independent silk handloom weavers in the society. Each member seeking admission should contribute at least Rs. 35 and the balance of Rs. 65 will be advanced from the Cess Fund recoverable from members in the course of two years. Capital will be provided for the requirement of 100 weavers which is intended for giving advances on the pledge of goods bought by the members up to the extent of 60 per cent of the cost price of goods (up to a maximum of Rs. 250 at any time). A sum of Rs. 56,500 has been sanctioned towards share capital advance and working capital. The Government have sanctioned the services of a Senior Inspector of Co-operative Societies free of cost and the appointment of a marketing expert at a pay not exceeding Rs. 125 per mensem, at Government cost. The area of operations of this society is confined to the municipal limits of Kancheepuram. It was started on 2nd December 1955. The working of the society will be watched and steps taken to expand it in due course with a view to bring more independent silk handloom weavers within its fold.

Spread of Silk Handloom Societies

The successful working of the Kancheepuram Silk Weavers' Society attracted the attention of silk handloom weavers in other parts of the State. In Kumbakonam and Thirubuvanam, there was discontent and agitation against the master weavers with regard to wages. Two silk handloom weavers' co-operative societies were formed in

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Third All-India Handloom Week Celebrations at Coimbatore.

The Small-Savings Movement in Madras Region

To save something for future emergencies is a human habit that has accelerated the tempo of social progress. What we call the values are nothing but the sum-total of savings by the bygone generations in the realm of spirit while wealth the accumulated heritage in the field of matter. If mankind ever had to choose between to save or not to save (as the doubting Prince of Denmark had to face the proverbial problem of to be or not to be) and had it chosen the latter that very act would have put a tragic end to humanity's forward march. The spirit of creation and its retention add colour and content to the social and individual life. It is this spirit that makes man adventurous and his life meaningful. Even among the species of lower order in the scale of evolution the habit of saving food for future is prevalent, e.g., during the spring when honey is plentiful bees store it in the hive and squirrels collect and keep nuts anticipating the rainy season. But there is an essential difference: with animals the urge is instinctively biological and hence limited; with man it turns into an intelligently cultivated individual idea with a social goal, the expenses of which seem to be immense. We can very well say that to save for a social purpose is human.

How They managed It

Though unlettered and uninitiated to the intricacies of modern finance the grand parents of the country-side were never behind in saving something for the benefit of the growing young ones. True, most of them could not safely invest a huge amount of money in the bank so as to leave a big balance at the disposal of their descendants. But, quite often, they established banks of their own in the shape of uncut coconut shells or carefully designed mud-pots that served well as hundis. Coppers and nickels went into them from the shivering hand of the old people, their lips murmuring in a prayerful mood. 'This is for

Ramu's next birthday. Or may this be useful for the marriage of Lakshmi. Years went by and one fine morning you wake up to see the breaking up of grandma's hundi. Rupees, coppers and nickels, all conspiring together to make up a substantial sum for the occasion! 'How could you manage so much, grannie?' You ask with surprise and silly suspicion. 'You little fool!' pat comes the reply, 'I have been saving a coin for you everyday. And you see the demonstration of the proverb you learned from your teacher that 'many a mickle makes a muckle'.' You got an idea besides the money.

The Pattern of Old-world Wisdom

Keeping hundi boxes has been a general habit among our rural folk. Housewives, husbands, school children and grandfathers vied each other in the saving-race. In olden days, this habit, perhaps, helped even the poor farmers to keep away the usurious money-lenders from their thatched doors. To meet small-scale economic exigencies they depended on the hundi reserves as they successfully staved off the ill-effects of mild draughts with bucketful of waters from the nearby wells. When their neighbours were in want, persons with reserves came forward voluntarily to the rescue. Human relations were reciprocal. To them love thy neighbour was not just a sentence in the book, but a way of life. The pattern of the rural life, then, was simple and self-sufficient. If any unforeseen complexity arose, the pattern itself evolved compensatory measures, for, it was self-operative and elastic within limits. For good or bad, we have come far away from the idyllic conditions of old-world wisdom which at present are nothing but faint echoes—the rumblings of a receding note of memory.

Decadence sets in

The political upheavals and social convulsions that came later, almost

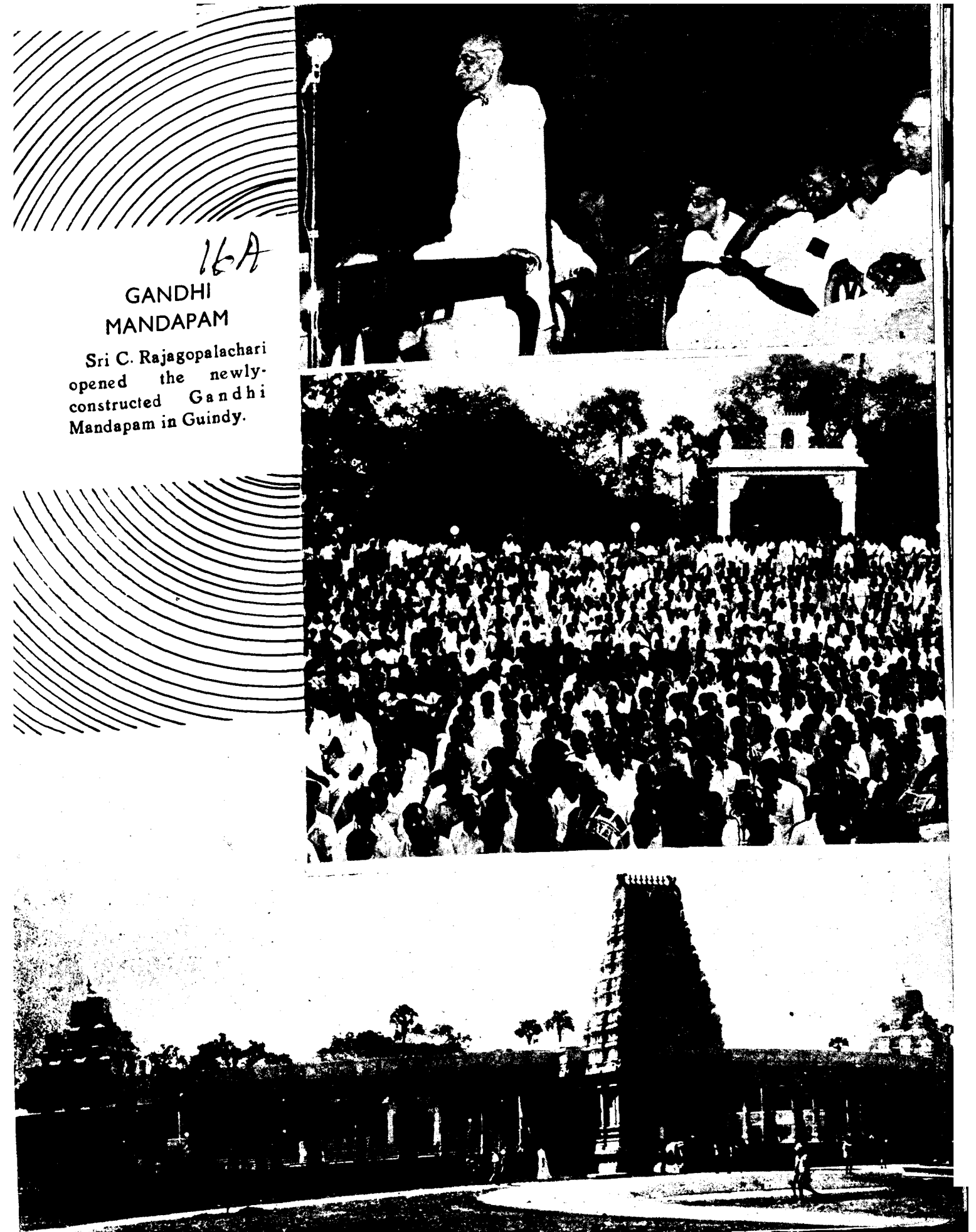
demolished the cherished aspects of village set-up leaving the people to fight their lone battles. The foreign power that established its firm sway over the multitude never cared to take the hereditary traits and psychological tastes of the peasantry which constituted the vast populace of the land into consideration, for the simple reason that neither national prosperity nor individual well-being was the Government's goal. The very thought to canalise the healthy habits of the individuals into community's commonweal did not find favour in the mind of an alien regime. People's participation in the affairs of the nation was a dangerous course for the powers-that-be in those days. That is the reason why we had no nationwide campaign for saving and thrift while in the Western countries it flourished tremendously.

The Beginning of the Scheme

The logic of events is, sometimes, more powerful than the subjective reservations of systems and the persons who man them. The exigencies of the Second World War necessitated the introduction of the Savings Scheme in India too, mostly as an anti-inflationary measure and a method to mop up the surplus currency with the people to finance the sinews of war. The Scheme was introduced in the South in 1944 and was under the administrative control of the Government of Madras. Propagandists and lecturers were appointed to go about the districts to preach the saving-habit. Authorised agents were also appointed to increase the sales of National Savings Certificates. They were paid a commission of 2½ per cent. Every village headman in the Province was, *ipso facto*, an authorised agent. There were, thus, 24,398 village headmen working as ex-officio agents. But with a view to earn handsome commission, the agents were only contacting the well-to-do persons to get lump-sum investments. Thus the predominant small savers were either ignored or neglected.

GANDHI MANDAPAM

Sri C. Rajagopalachari opened the newly-constructed Gandhi Mandapam in Guindy.





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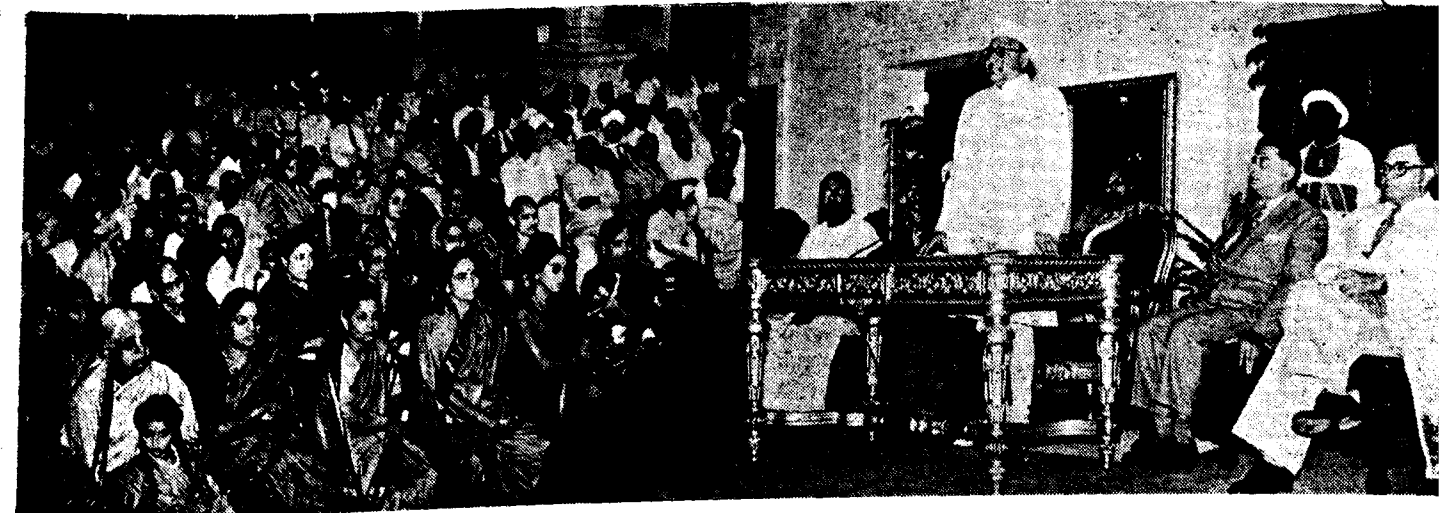
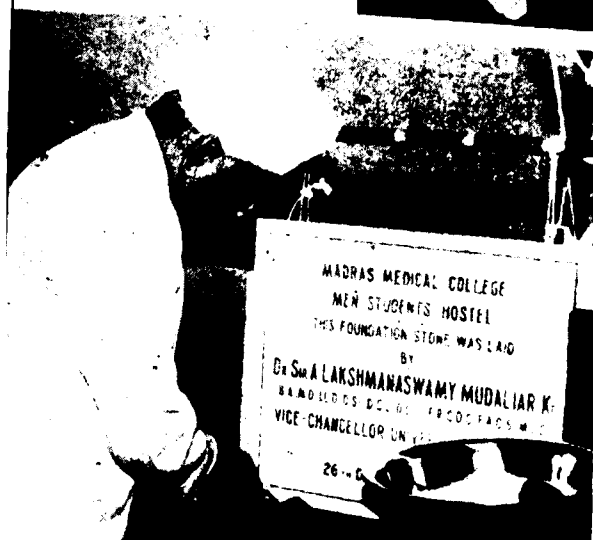
A Party of the Pressmen visited the Mangalore Community Project area. Pictures show the various scenes of rural reconstruction.—(1) A newly-built primary school, (2) and (3) Community entertainment, (4) and (8) Members of the shikari tribe, (5) to (7) New buildings,—Health Centre, High School and Community Hall. (9) A new bridge under construction, (10) Training in rattan work.



The first meeting of the Fisheries' Research Council.

A NEW DEAL FOR LABOUR

The Regional Council of the Employees' State Provident Fund Scheme held its meeting recently under the chairmanship of Sri C.G. Reddy, Secretary, Department of Industries, Labour and Co-operation.



To mark the celebrations of the Savings Fortnight a public meeting was held at the Rajaji Hall. Picture shows Shri Sri Prakasa, Governor of Madras, who presided, addressing the gathering.

The agents were also adopting irregular methods which made the Government to pay heavy commission. In 1947-48 alone an amount of Rs. 3½ lakhs was paid by way of commission in Madras. The Government discontinued the agency system from 1st June 1948.

Reorganisation and After

The underlying principles of the scheme, viz., to inculcate the habit of thrift and savings, were found to be best suited to the interests of common man. The Government of India, therefore, decided to make it a permanent socio-economic measure and reorganised the scheme. The organisation was taken over for administration by the Central Government direct, through the National Savings Commissioner. The Scheme was given an impetus after Independence. Big development programmes were envisaged under the Five-Year Plan involving a huge capital expenditure. The National Savings Scheme was assigned a vital role in this process. The Scheme which was started as a purely war-time measure had, by now, been established on a more permanent basis for the social uplift of the masses and the economic well-being of the country. It was intended to make the Scheme popular among all classes of people by methods such as systematic publicity, appointment of authorised agents and formation of saving groups and savings committees. In the seven years that has passed after reorganisation, a great deal had been achieved.

To publicise the advantages of National Savings Schemes among the people, special occasions like festivals, exhibitions and melas are taken advantage of. Every year Savings Fortnight is held during which a planned drive is made to collect as many investments as possible. The public meeting at Rajaji Hall during every Savings Fortnight is always looked forward to, since such important personalities like the Governor of Madras, Chief Minister, Ministers and other leaders of all parties participate in the gathering. Until 1st October 1953, the Andhra districts formed part of Madras State. This region, with headquarters at Madras, comprised the State of Madras, the Coorg from December 1951, the Travancore-Cochin State. On the formation of Andhra State the organisation in the Madras Region was split into Madras and Andhra Regions. The Madras Region continued to hold jurisdiction over Travancore-Cochin and Coorg States and Mysore to a limited extent. The Scheme has also been extended to Pondicherry State.

The Experimental Authorised Agency System was introduced in Madras State, along with Bombay and Bengal States on 1st June 1950. A commission of 1½ per cent was given on sales of 12 Year National Savings Certificates (including Provident Amount investments) to the accredited authorised agents and 2½ per cent commission on sales of Rs. 5 denomination certificates. The Government of India were satisfied with the working

of the system and therefore decided to make it permanent measure from 1st January 1954 with the concurrence of the State Governments under the name of General Authorised Agency System. There are now 221 agents in Madras, 13 agents in Travancore-Cochin State and two agents in Coorg State. Since the launching of the All-India Womens' Savings Drive in 1953, there are at present in Madras State 16 Agent Organisations working as Women's Savings Campaign Agents, three in Mysore, four in Travancore-Cochin State and one in Pondicherry. The target for collections through the Women's Savings Campaign in Madras zone is Rs. 81.95 lakhs, Travancore-Cochin Rs. 20.80 lakhs, Mysore 20.32 lakhs and Coorg 0.48 lakh.

State Governments' Co-operation

The State Governments in this region are giving the Savings Campaign due co-operation. This year the Government of India have announced that, as a measure of further assistance to the State Governments, in addition to the whole of the excess over the individual targets at present admissible, 50 per cent of the excess over 80 per cent of individual targets may also be made available to the State Governments in the form of loans for financing their development works. In the Central Budget for the current year the net collection to be made through Small Savings movement has been estimated at Rs. 5 crores. In the context of the Second Five-Year Plan, wherein the Small Savings Scheme

Figures Tell The Story

The gross sales of National Savings Certificates in the Madras Presidency, yearwise—

	RS.
1944-45	2,35,67,090
1945-46	1,80,08,010
1946-47	1,79,20,690
1947-48	1,79,71,820

After reorganisation on 1st June 1948, the gross sales in Madras, Coorg and Travancore-Cochin States (from December)—

	RS.
1948-49	3,08,88,270
1949-50	2,53,23,370
1950-51	2,10,67,095
1951-52	2,01,20,000
1952-53	1,78,17,225

The sales of Ten-Year Treasury Savings Deposits (introduced from 1st February 1951) in Madras, Travancore-Cochin and Coorg States—

	RS.
1950-51 (from 1st February 1951) ..	86,71,900
1951-52	1,53,10,000
1952-53	63,95,700

The sales in Madras Region in 1953-54—

	RS.
National Savings Certificates ..	1,34,15,860
Treasury Savings Deposit ..	79,74,700

In 1954-55 (in this year two additional securities, viz., National Plan Certificates and 15-Year Annuity Certificates were introduced) the gross sales were as follows:—

	RS.
National Savings Certificates ..	1,41,11,160
Treasury Savings Deposits ..	41,42,400
National Plan Certificates ..	27,90,920
15-Year Annuity Certificates ..	5,52,500

In 1954-55, the net targets and the net sales, statewide were as follows:—

States.	Net targets in lakhs.	Net sales in lakhs.
	RS.	RS.
Madras	225	246
Travancore-Cochin State ..	50	46
Coorg	4	3
Mysore	50	50

The total target fixed for 1955-56 by the Government of India for Madras Region is Rs. 3 crores 30 lakhs. The collections up to 31st December 1955 in Madras State amounted to Rs. 162 lakhs as against Rs. 128 lakhs in the corresponding period of last year.

is expected to contribute a total amount of Rs. 500 crores or an average of Rs. 100 crores per annum, the Government of India have felt that the existing

targets are no longer relevant in view of the very large increase in the targets for the Second Plan. However, they have now evolved a new formula

for sharing Small Savings collections and it will be to allow the State Government to retain up to 25 per cent of its average collections during the last three years 1953-54, 1954-55 and 1955-56 plus 50 per cent of the collections in excess of this average. The arrangement will be applicable to the loans to be given from 1956-57 onwards.

In the second fortnight of August 1955, the Madras Government floated their 4 per cent Madras Loan, 1967. They were requested to combine the loan drive with small Savings Scheme propaganda and collections. The officials engaged in it were directed to canvass for Small Savings securities also by the State Government.

Panchasila for Small Savers

The Small Savings Scheme offers the following securities to the public:—

1. Post Office Savings Bank, offering an interest of 2 per cent on balance of Rs. 25 to 10,000.
2. Seven-Year National Savings Certificates encashable at any time yielding an average interest of $3\frac{1}{2}$ per cent per annum.
3. Twelve-Year National Savings Certificates yielding an interest of 4—16 per cent.
4. Ten-Year National Savings Certificates yielding an interest of $4\frac{1}{2}$ per cent.
5. Fifteen-Year Annuity Certificates providing for a monthly payment for 15 years yielding an interest of $3\frac{1}{2}$ per cent paid annually.

The interest on all these securities is free of income-tax, super-tax and corporation-tax.

These securities are designed to suit all conditions and all pockets and they carry with them the security of the Government and offer very attractive returns.

One of the main features of the savings movement is the formation of the savings groups in institutions, which enable individuals to build up a reserve for sudden emergencies by resorting to regular monthly savings. The industrial establishments offer a

(Continued on page 20)

The National Savings Movement

By SHRI K. S. MALHOTRA, I.A.A.S., National Savings Commissioner for India

Many of you have, no doubt, heard of "National Savings", yet there are many more who know little or nothing about it. To trace the beginnings of the Savings Movement, one has to go back to the end of the 18th century, when much thought was given to social problems, and in particular to the social problems of the poorer classes—the most prominent among their needs that was stressed being the need of making some provision for old age.

The beginnings of the Savings Movement had thus their roots not in any economic theories, such as the consequences of savings for capital formation or the relationship of savings to full employment, etc., but in social benefits which accrued from wise spending and wise saving. And it is most important for all of us to remember that "Savings", in its broader aspect, is a part of "Citizenship" and that the habit of saving leads directly to national well-being. Viewed thus, it becomes the bounden duty of all those who understand the importance of National Savings to preach this gospel to those who do not know about it.

Better to Lend than to Spend

During the First World War, the National Savings Movement got a great momentum, when it was explained to the public by their leaders in European countries, not only how individual spending mattered to the nation, but also why during times of any national endeavour, it was better to lend than to spend. It was at that time that the foundations were laid in Europe of that wonderful voluntary organization of "Savings Groups" which helped people of small means to save of their own free will by making, of course, a very conscious effort to save and to lend those savings to the country. These Savings Groups

comprised of a varying number of voluntary savers who helped themselves by wise spending and at the same time helped the nation by freely lending these savings to Government. Each Saving Group thus became the growing point of this national movement. Even today the base on which the structure of the National Savings Movement rests in Europe and America is made up of these Savings Groups run in places of employment, in schools, streets, villages and various units of the armed forces, by a band of Honorary Social Workers, who bring a sort of missionary zeal to their work.

In India during the First World War, while people were encouraged to help the war effort by buying war bonds and in other ways by lending money to Government, no National Savings Movement, as such (with the long-range objective of teaching Indians the virtue of wise

spending) was launched in the country and no effort, worth the name, was made to form Savings Groups of small savers on the lines of the very laudable voluntary effort which was being put in this direction in England. Even during the Second World War, when a National Savings Organization was set up, and a National Savings Commissioner for India appointed, nearly all the energies of the organization were concentrated on the sale of Government scrips like the National Savings Certificates. The educative aspect of savings (with its emphasis on personal happiness on the one hand as a result of well-planned spending, and the common national good on the other) did not receive the emphasis that it deserved. Thus the most important aspect of this nation-building work continued to be ignored. This aspect of National Savings is now beginning to receive its due attention.



A view of the new building of the Ladies' Club Health Centre, Adyar, declared open by Sri K. Kamaraj, Chief Minister.

Most of you have, no doubt, read the recent resolution on "Savings" passed at the All-India Congress Committee's Session at Amritsar. A lead has been given by our leaders who have stressed the paramount part which the Small Savings of millions of Indians have to play in the development of our country. It would be superfluous for me to repeat what has so ably been put before the country in the resolution moved by Shri S. K. Patil and seconded by Mrs. Indira Gandhi.

The framers of the second Five-Year Plan expect to raise a sum of Rs. 500 crores per annum during the Second Plan period. This really works out to annas four per mensem per head of our population. I concede that there are many of our unfortunate brothers and sisters who cannot hope to save even that small sum of money. Let those who are more happily placed in life save for them. Let us determine not to fail in this modest target that has been set for Small Savings by our planners.

The aim of Government in most countries to-day is a more equitable distribution of wealth. As time goes on, therefore, all over the world there may be fewer left of the very rich. In the past vast fortunes had been saved by some lucky ones, which in most cases were left intact for many generations and on the yield of which the family estates used to be carried on. The places of these fabulously rich will have to be taken by millions of common citizens—individuals of modest means with their modest savings, wisely invested through the agency of their democratic Governments.

The Escape out of the Paradox

Our Government is committed to the attainment of a socialistic pattern of society. I wish to point out that the attainment of this laudable objective would not be without its repercussions on the total savings in the country. A more equal distribution of income would tend to reduce the level of savings, for past experience indicates that the poorer people save a smaller proportion of their income than those who are more wealthy. At the same time our Government is pledged to a vast programme of development which would necessitate maintaining capital investments at a high level. We thus face something of a paradox. While on the one hand the more

equitable distribution of wealth in itself might tend to reduce the level of savings, on the other we not only will have to maintain but also to increase the existing level of our capital investments, engaged as we are, to use the words of our Prime Minister, "in a vast enterprise of building a New India"! And the escape out of this paradox lies in the realization by each one of us of the need for greater personal savings.

The disposition to save is determined by (i) the size of the income and (ii) by psychological and traditional factors. And while the size of the incomes is in the process of undergoing a big change, the psychological and traditional factors may not change so quickly. Luckily, we in India are traditionally a saving lot. Every one saves for some purpose or other; be it the children's marriage of their future, or be it the building of a family home, or provision for old age, most people put by some savings regularly and conscientiously. And whether a husband saves or not, the wife invariably tries to have a small nest-egg put by, out of her modest pin money, in the shape of ornaments.

So save we all do—but do we save enough? And do we invest our savings wisely?

You may well ask "What a man or a woman does with his/her money is surely their own affair". Of course it is, but nothing but good will come out of encouraging people to make the best use of their earnings. A person with a bit of a nest-egg behind him is better able to meet the ups and downs of life. Savings give him a security and freedom from financial worries. Further more, he can get more out of life, and take advantage of its opportunities, buy a car, a frig, or go away for holidays, do the best for one's children and secure additional comforts for the old age. Last, yet most important perhaps, in another's troubles one who has money can afford to be generous. All told, because of his happier circumstances, a saver becomes a better citizen. And on top of it all, the value of savings goes further than these advantages to the individual. Savings are essential for national development.

The Changing Phase

As time goes on, our savers will more and more be people of modest

means whose savings will usually be spent within their lifetime. The wealthy saver of the past saved so that he and his children might live on the consequential income. Often he kept his capital intact. The saver of to-morrow can never hope to be able to do this. He will save and in due course will spend his accumulated savings in his old age. Thus, some years hence, the savings picture in the country would be of some people saving out of their current income, and others dissaving and spending what they had accumulated in the past. The level of new savings in future would, therefore, have to be high enough to offset this dissaving and to provide for new capital investments in addition. This will become all the more significant if and when, as a consequence of better standards of public amenities, our population begins to live longer.

And that explains why all of us will have to save more in the future—and to be able to do so, we will have to make a conscious effort to avoid all wasteful expenditure. Once again before us we will have to keep that old saying always in mind, which taught that "a man is rich in proportion to the number of things that he can do without". With simple living will come a fuller and richer life not only for some but for most of our good people.

(Continued from page 18)

very wide scope for the formation of savings groups and active co-operation of the management and workers in this direction is expected.

The Perspective

In view of the gigantic programme of economic reconstruction and a Socialist Structure of Indian Society, the small savers' chances and role to combine thrift with patriotism are increased. In a democratic country economic planning succeeds only with the active co-operation and participation of the people. Every coin that goes into the Exchequer by way of the Savings Scheme comes back to the saver with doubled advantage. For the individual the savings come back in the form of money and his due share in the increased national prosperity.

A Study Tour in Rural Development Areas

By Sri S. VENKATASWAMY, M.A., Public Relations Officer, Community Development

With a view to study the working of the Rural Development Projects in a few districts, a team of pressmen from Madras proceeded on a tour on 3rd February 1956. They spent nearly nine days in Coimbatore, Malabar and South Kanara districts visiting a number of villages in the remote areas and discussing the problem with different types of people.

What is all this talk about Community Development? Is there any real work done in rural parts? What is the reaction of the people to the programme? Is there any substantial progress? What has been done in the field of agriculture? What is the way out of the vexed problem of rural indebtedness? Is there any solution for assuring better prices and marketing facilities for the produce in villages? Are there any attempts towards affording educational and medical facilities for rural population? What about the plight of rural women and children? Has anything been done for their uplift and amelioration? Are there any facilities for providing subsidiary occupations? Numerous questions on these lines are repeatedly asked on the subject.

The answer to these questions is very simple. No useful purpose will be served if a catalogue of suitable replies is furnished to these never-ending questions. The best answer is to request the questioners to go to villages in Rural Development Project areas and see things for themselves. This observation was made by Sri N. E. S. Raghavachari, I.C.S., Additional Development Commissioner, Government of Madras, in a recent broadcast on Community Development.

The Press Party consisting of the representatives of 'The Hindu', 'The Mail', 'Swadesamitran', 'Press Trust of India', 'Daily Thanthi', 'Nava India', 'Mathrubhoomi',



The Press Party at Malampuzha.

'Desabhimani', 'Kalki' and 'Kumudam' visited the various institutions developed during the past two or three years, inspected the new housing colonies and witnessed the new agricultural practices advocated on modern lines. Demonstration poultry farms, artificial insemination centres, primary health-units, veterinary dispensaries, co-operative godowns, community halls, women's clubs, children's concerns, roads, bridges, culverts, foot-bridges, cause ways, etc., made on impression on them.

Questions were asked by pressmen for eliciting information on the people's participation in implementing development works. A comparative study of the degree of co-operation in different

regions was also made. The officials and non-officials co-operated in making the study tour as useful as possible.

Incidentally, the special features of the regions concerned were also studied. Among other things cultural programmes such as 'Kathakali' of Kerala and 'Yaksha Gana' of South Kanara were witnessed by the members of Press Party at Kollengode and Karkal respectively. The Irrigation Projects of Lower Bhavani in Coimbatore district and Malampuzha in Malabar district were also visited. The Kangayam breeding bulls were inspected at the Cattle Farm of the Pattagar of Palayakottai. They also visited the famous temples of Guruvayur and Udipi. The Kasturbha Medical College at Manipal and the Social Welfare Projects sponsored near Manipal and Udipi were also seen by the Party. The Minister for Health, Sri A. B. Shetty, met the members of the party at a dinner on the eve of their departure from Mangalore.

Today more than one-fourth of the State is covered by Community Projects, Community Development Blocks, National Extension Service Blocks and the Special National Extension Service Blocks in Tanjore district. Local Development works are in progress in areas not covered by these Rural Development Projects. Besides these, Welfare Extension Projects are also in progress under the Central Social Welfare Board for the benefit of women and children of rural areas.

On the whole, a new movement has been vigorously launched for solving the age-old rural problems all over India by the inauguration of Community Development programmes. The specific significance of these projects lies in decentralising rural planning and conplying the enthusiasm of the people in the areas concerned for social betterment and economic development. The Government are giving a helping hand



Solution of an age-old problem.—Foot-bridge under construction at Muttapady, Mangalore Community Project area. This bridge connects two remote villages at the foot of the Western Ghats. These villagers are usually cut away from the nearest town for more than six months during the rainy season. This bridge solves an age-old problem.

providing the necessary technical services and supplies and offering a portion of the estimated cost of works, an incentive to local contribution of the people. From the statistical data available with the Government for the period ending September 1955, it is found that the total contribution made

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by villagers in cash, kind or in terms of labour amounted to about Rs. 73 lakhs out of a total Government contribution of Rs. 76,88,113 towards works. (This figure does not include the expenditure on staff and loans distributed.) This is not a small achievement.

Do you know?

The first consignment of DDT—about 19 tons—Produced at the State-owned factory in Delhi, known as the Hindustan Insecticides, Limited, has been despatched to Jaipur for use in anti-malaria operations. The factory is one of the industrial undertakings under the Ministry of Production and has been set up in co-operation within United Nations bodies. The factory has so far produced 115 tons of DDT.

The designing of the additional equipment and plant for increasing the capacity of the Hindustan Insecticides, Limited, to 1,400 tons per year is being completed by Indian technicians in collaboration with experts lent by the U.N. bodies. The purchase of machinery, according to the design is now in progress. A fair portion of the new equipment is expected to be fabricated in India.

The Central Social Welfare Board has decided to establish one urban family welfare project in each State during the First Plan period. This scheme will be worked through industrial co-operatives organised by the Board in collaboration with the Ministry of Commerce and Industry. A match factory started under this scheme is already working in New Delhi.

It is also proposed to give an increasingly rural bias to the activities of the Central Social Welfare Board in the Second Plan period. It is estimated that out of a total outlay of Rs. 15 crores expected for the Board's work during the next Plan period, Rs. 9.3 crores would be utilised as the Board's contribution towards welfare projects' expenditure. It is proposed to have three such projects in each of the 330 districts of the country during the next Plan period, in addition to the one already started or to be started in the First Plan period.

Agriculture in an Expanding Economy

By SRI N. MURUGESA MUDALIAR, Deputy Secretary, Agriculture Department

Agriculture which contributes to nearly 50 per cent of the national product and which preponderates the occupational pattern of the economy will play a decisive role in the national economy. The greatest operational significance of the First Five-Year Plan was the increase of agricultural production by 20 per cent and overcoming of shortages in essential commodities like cotton required by the industrial sector.

Although agriculture came to the rescue of the entire economy, it was not well served. The pressure of population on land had not decreased and prices showed a tendency to decline owing to lack of rapid development in the industrial sector to draw off the surplus labour force of nearly 2 millions entering the national economy every year and keep up the purchasing power. The shift in emphasis in Second Five-Year Plan is therefore on heavy industries to help capital formation and to provide over 11 million jobs. Such a shift is necessary



Sri M. Bhaktavatsalam, Minister for Agriculture, inaugurating the 26th Conference of the Representatives of Primary Land Mortgage Banks at Mylapore.

in an employment-oriented Plan. Although priority of investment is in favour of industries, the second Plan is doubtless agriculture as well as industry based.

Utilisation of Man-power

The infrastructural reorganisation in agriculture necessary and inevitable for the realisation of the social objectives of a national plan and the impact of an embarrassing rate of population growth on the agricultural sector will create situations to be solved. The surest means of capitalising the unused and underutilised man-power and the utilisation of savings is co-operative action in its widest view. This is the rationale of community development and national extension projects and local development works. The proliferation and development of hand and cottage industries in the rural sector will be of further help.

Large-scale Credit facilities

The effects on institutional changes on the finance for agriculture will be

(Continued on page 32)



Sri A. Ramalinga Reddiar, Chairman, Coimbatore Municipality, receiving a shield from Sri C. Subramaniam, Minister for Finance, for producing the best quality compost manure in the State.

A Land Mark in the History of Tamil Language

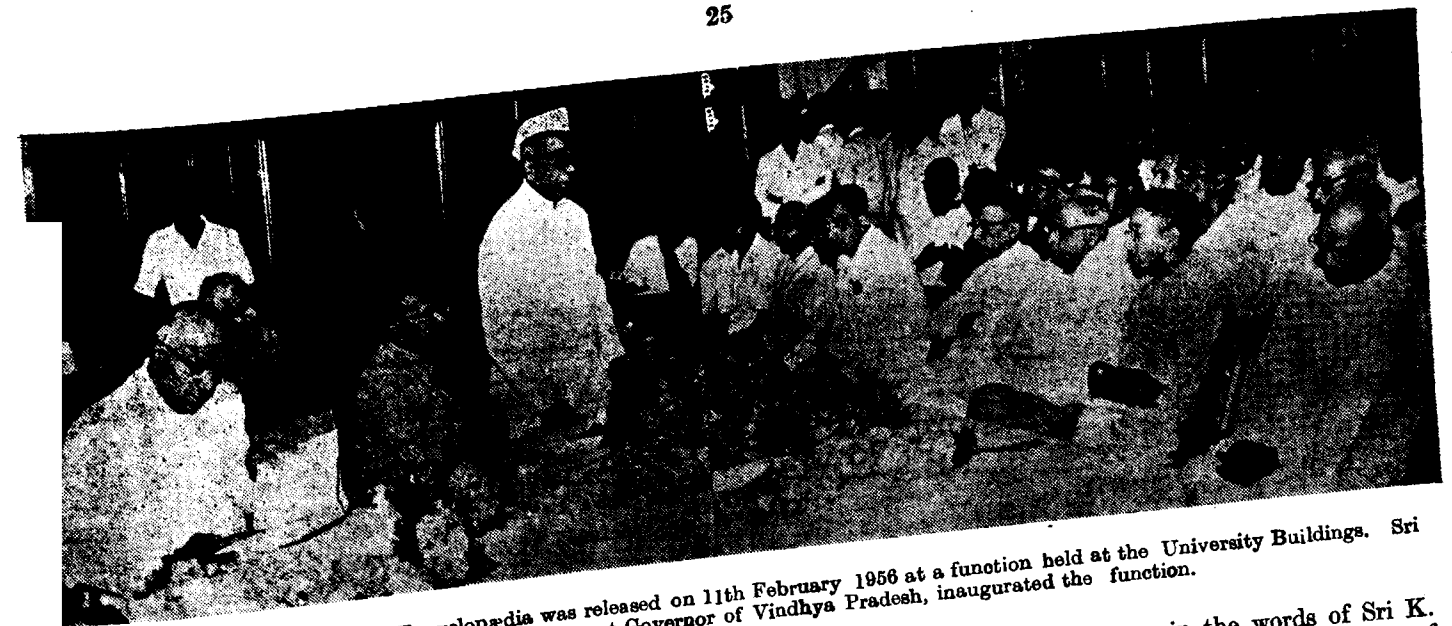
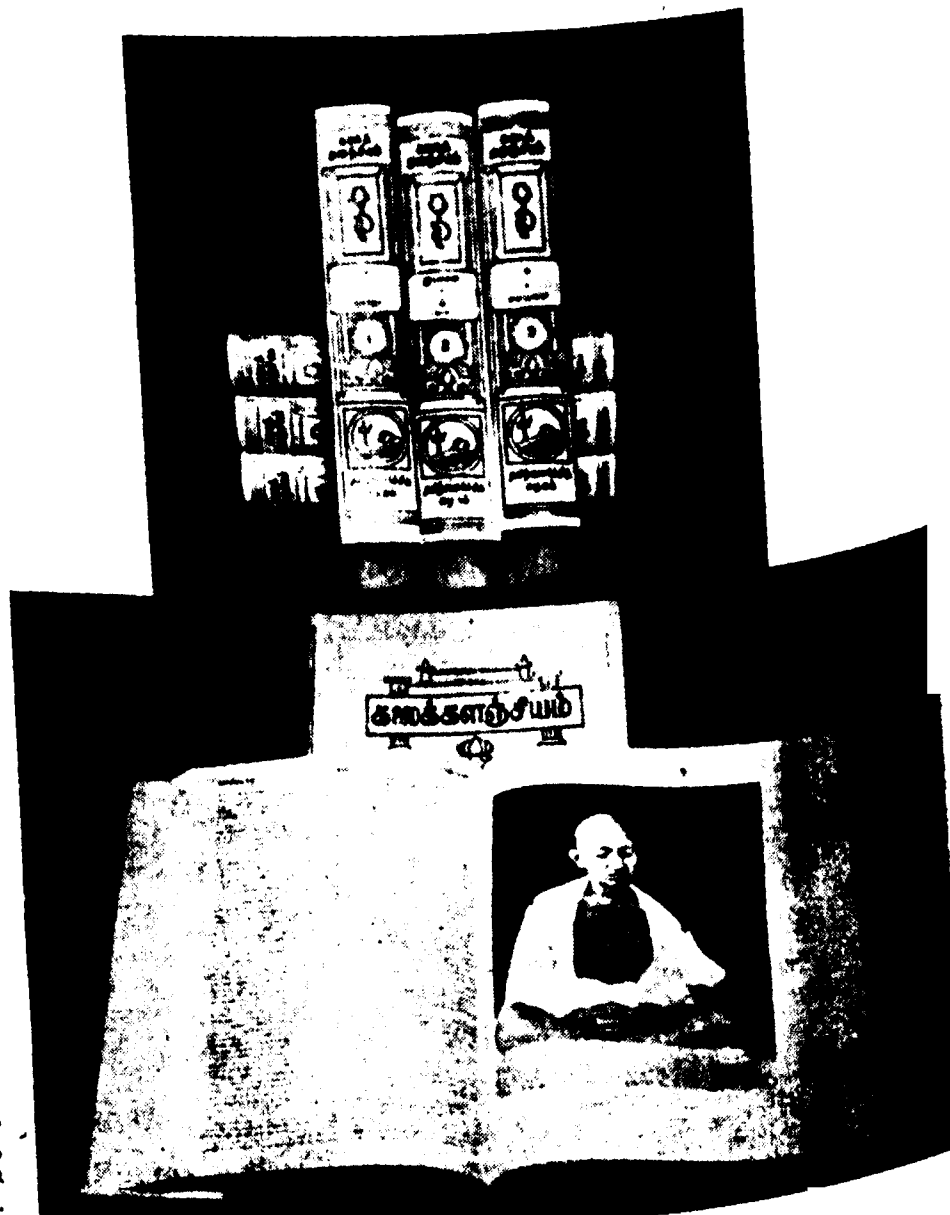
It is said that knowledge is power. If so, encyclopædia is the reservoir of knowledge and the arsenal of power as well. The weapons produced and kept ready in this arsenal are of a different denomination, their basic use being in the sphere of construction, i.e., freedom. More weapons of this kind mean more broadening of the humanity's mental frontiers. One can safely say that encyclopædia is the synonym for enlightenment. The Age of Enlightenment is associated with the Age of Encyclopædia. Eighteenth-century-France provides the classical example. The motive power for the socio-political changes that took place in the later half of eighteenth-century-France and spread all over Europe like freedom's torch flames was supplied by the Savants. History christened them the Encyclopædists.

The perspective that an encyclopædia opens up, therefore, is that of cultural and spiritual regeneration. The depth of a language or literature can be measured by the volumes of encyclopædia that it has produced, as the material prosperity of a nation is bound up with the irrigation and power projects and other technological developments. Happy is the land that possesses both the resources integrated in its life. Tamilnad has begun the march in this direction with creditable success and caution. The release of the Third Volume of Tamil Encyclopædia is as unique an event as the opening of the Lower Bhavani Project. The one goes direct into the green fields while the other into the fertile minds of men working there, both the processes resulting in people's prosperity, and integral personality.

The compilers of the encyclopædia and all those who, in one way or other, contributed to its successful publication can quite rightfully claim distinction.

They have enriched their mother-tongue and shown an example worth emulation to others. And the latter did not lag behind. Sri T. S. Avinashilingam Chettiar, the President of the Tamil Academy, who presided over the function held on the occasion of the release of the Third Volume of the

encyclopædia at the University Department Buildings, Chepauk, on 11th February 1956, observed that the efforts to produce an encyclopædia of this proportion in Tamil had induced other languages to make similar efforts and that the Government of India had also sought to be benefited by



The third Volume of the Tamil Encyclopædia was released on 11th February 1956 at a function held at the University Buildings. Sri K. Santhanam, former Lieutenant-Governor of Vindhya Pradesh, inaugurated the function.

their experience by nominating the Chief Editor of Tamil Encyclopædia as a member of the Hindi Encyclopædia Committee.

The first volume of the Tamil encyclopædia, it may be recalled, was published on the Tamil New Year's Day in 1954 and the second volume one year later. The third has been released nine months after. It contains 756 pages with contributions from 223

authors. There are 395 illustrations including colour pictures and it is priced at Rs. 25 only. The fourth volume is expected to be released within a period of six months. The promise and fulfilment of the progressively speeding-up of the release of the volumes of Tamil Encyclopædia commends sincere appreciation and heart-felt thanks from all quarters. The programme is to bring about the encyclopædia in ten volumes.

To sum up, in the words of Sri K. Santhanam, former Lt.-Governor of Vindhya Pradesh, who performed the inauguration ceremony of the present volume: "Tamil encyclopædia is bound to be a landmark in the history of Tamil. . . It has infused the confidence that the ancient and beautiful Tamil language will before long become capable of being the vehicle of modern science, politics and economics."

(Continued from page 15)

these places for the benefit of the silk handloom weavers there. The scheme broadly on the lines of the scheme for the formation of the Kancheepuram silk handloom weavers co-operative society. In order to rehabilitate the condition of the silk handloom weavers in Manambuchavadi in the Tanjore district, steps were taken to convert the existing cotton handloom weavers' society into a silk-cum-cotton handloom weavers' co-operative society with the assistance of Cess Fund. Proposals for the formation of silk handloom weavers' co-operatives at Arni in North Arcot district and Salem on a pattern similar to that of the Kancheepuram Silk Weavers' Co-operative Society have been sent to Government. Arni is noted for its Mallama-border sarees and Salem for dhoties and Angavasthrams.

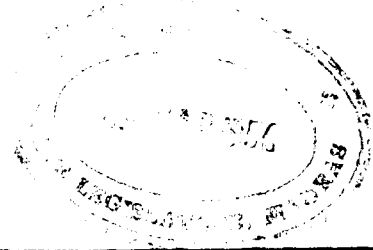
The leaders of the country have laid great emphasis on the development of cottage industries as they provide employment to millions of people. The workers in the silk handloom industry are excellent craftsmen and help to maintain the glorious traditions

of India from times immemorial. It is therefore proper that energetic steps should be taken to consolidate the industry and place it on a firm footing

with a view to better the economic condition of the lakhs of weavers engaged in it through the aegis of co-operatives.



Sri K. Kamaraj, Chief Minister, distributing prizes at the Gandhinagar Ladies' Club.



Sangith Vadyalaya



Shri Sri Prakasa, Governor of Madras, inaugurating the Sangith Vadyalaya.



Sri M. A. Muthiah Chettiar, President, Tamil Isai Sangam, speaking at the inaugural function.

The Vadyalaya, first of its kind in India, is the direct outcome of the efforts of the All-India Handicrafts Board, to have two institutes for manufacturing Indian musical instruments, one in the south, mainly for manufacturing southern instruments and the other in the north largely for producing northern instruments. The objectives of the Handicrafts Board in starting the Vadyalaya, in the words of the Chairman of the Board, are to preserve the rich and ancient knowledge music and further enrich it through proper research.

Shri Sri Prakasa, the Governor of Madras, in the course of his inaugural address referred to the steady deterioration in the quality and standard of musical instruments and said that it was high time they set themselves to the task of producing the proper kind. Manufacture of musical instruments was a hereditary art in many cases, he added, and for want of patronage and encouragement, the families which had been engaged in the good work, had to give it up and resort to some other profession for eking out their livelihood.

There are two sections in the Vadyalaya. The first one is the Musical Instruments Gallery where more than 100 musical instruments are kept and the second for giving training in the making of instruments, vina, tambura,

violin, sruti-box, sitar, outfits and spare parts for instruments, etc. The Forest Department of the Government

of India, it is understood, have promised to send resonant wood for the manufacture of the instruments.



Shri Sri Prakasa, Governor, inspecting some of the musical instruments at the Gallery of Musical Instruments. Seen with him are Srimathi Kamaladevi Chattopadhyaya, the President, All-India Handicrafts Board and Professor Sambamurthi, Principal, College of Carnatic Music.

Labour Welfare in Madras State

By SRI K. V. PARTHASARATHY, Personal Assistant to the Commissioner of Labour

Labour Welfare which is an integral part of social welfare is of recent origin in our country, which many an employer have still to recognise. Resources in money and material, however abundant, cannot take shape and become useful to society without the willing co-operation of labour. The creation of an industrial democracy is therefore a pre-requisite to the establishment of the society envisaged for the future.

With the advent of Independence, the assurances given to labour in recognition of its natural rights had to be fulfilled in the context of a mixed economy. The basic policy of the

Government, since then, has been to associate the workers with the industry as partners with the management, so that we can achieve full industrial democracy in all respects at every stage whether it may relate to industrial relationship, human factors in industry, production programmes or problems connected with increased efficiency, wage level or profit sharing.

Employees' State Insurance

Among the various statutory enactments intended for the benefit of labour, the Employees' State Insurance Act of 1948 the first of its kind in social security measures marks an important landmark in the legislative pro-

gramme of the Government, in that it gives full protection to all wage earners against some of the economic risks to which they are exposed. This Act formulates, for the first time, an integrated scheme of insurance against sickness, maternity and employment injury applicable to all workers in factories but capable of being extended to others. The scheme was inaugurated first in Coimbatore, the major industrial town in this State, in January this year, where about 40,000 employees including 7,000 women employees working in 100 factories are now getting benefits under the scheme. There are about 45 panel doctors and 5 State Insurance Dispensaries with full-time paid staff spread over Coimbatore and its suburbs for providing medical treatment to the insured employees. There is also a mobile van to cater to the medical needs of the employees residing in villages and out-lying areas of Coimbatore.



In this section of Sangith Vidyalyaya Musical Instruments are manufactured.

The scheme has been extended in November to Madras City and suburbs, where about 52,000 employees working in about 290 factories are now receiving the benefits under the Scheme. The workers covered by the scheme in Coimbatore and Madras City are entitled to the medical benefits and the cash benefits, viz., sickness benefit, disablement benefit, dependants' benefit and maternity benefit. It is proposed to set up an independent hospital in the City containing 100 beds for the workers under this Scheme to give them free in-patient treatment and pending construction of such a hospital it has been arranged to provide beds in a rented building, purely as a temporary measure. Arrangements are also made for providing costly medicines to the insured persons at a number of places in the City so that the workers could get them from places nearest to their residence and for disbursement of cash benefits through the Local Cash Pay Offices.

Employee's Provident Fund

The Employee's Provident Fund Act, 1952, has benefited the employees in six major industries, viz., cement, cigarette, electrical, mechanical and general engineering products, iron and steel, paper and textile. The workers are required under the scheme to contribute 6½ per cent of their wages every month towards the Provident Fund to which is added an equal contribution from their employers. The amount of contribution is invested in securities and the interest earned together with the amount of contributions will be ultimately paid to the employees on leaving employment.

Working Journalists

The Industrial Disputes (Amendment) Act of 1953, besides providing for payment of compensation for involuntary unemployment equal to half the total wages, also requires a month's notice or the payment of a month's wages in lieu of notice and compensation calculated at the rate of 15 days wages for every year of service prior to retrenchment besides preference being given to them while entertaining new hands subsequently. The provisions of the Industrial Disputes Act of 1947 have also been extended to cover the Working Journalists by the Working Journalists (Industrial Disputes) Act of 1955. Statutory provision of retirement benefits at the rate of one month's pay as gratuity for every year of service whenever the workman retires, quits or is forced to quit on grounds of continued ill health is also under consideration.

The idea of creating Welfare Trust Funds to finance welfare activities for the benefit of labour has been engaging the attention of Government for long and it was recommended to the industrialists who showed little or no enthusiasm with the result that it is now under the consideration of the Government to place it on a statutory basis.

Canteens and Dispensaries

No programme of improvement and amelioration of the conditions of workers can succeed unless it provides good nourishing food to all workers and ensures supplies of essential commodities to the workers at reasonable

prices through the medium of co-operative stores. Most of the mills and industrial establishments including the Government Cinchona Department have set up co-operative societies and canteens.

The industrial accidents, the occupational diseases and the fatigue factor which have become the necessary evils of modern factory organization have necessitated the provision of medical facilities voluntarily by many employers which is now supplemented by the Employees' State Insurance Scheme in Coimbatore and Madras City. The Madura Mills maintains a well-equipped dispensary with a qualified compounder, dressing attendants and a registered male nurse, and ante-natal clinics for the benefit of women workers and their children, to give free medical treatment. The Associated Cement Company has provided an Hospital at Madukarai which is absolutely modern in its equipment and arrangement under the charge of a qualified Medical Officer and a Lady Doctor to give free medical treatment to the employees and their families, with separate in-patient wards for men and women, a maternity ward, a delivery room and an operation theatre. Ultraviolet-ray and infra-ray treatment are also given. Some of the Plantation Estates have also provided hospitals for the benefits of their workers.

Education and Recreation

Free education is imparted to children by some of the managements voluntarily. The Plantation Labour Act of 1951 marks a milestone in this direction in that for the first time it makes it obligatory on the part of the employers to provide free educational facilities to the children of workers living on the Plantations.

Recreation plays an important part in the lives of the workers, which is in conformity with the oft-quoted proverb "A sound mind in a sound body". Recreation, tournaments, entertainments, dramas, lectures and excursions to places of historical interest are some of the things which enables the workers and the management to come together on a common platform and to work with a spirit of fellowship. Recreation clubs have been well organized by the A.C.C.

where besides, outdoor games like cricket, hockey and foot-ball, facilities for indoor games like ring-tennis, chess, draughts and billiards are also provided. A fine dramatic stage with screens and setting has been provided, besides a library, reading room and radio.

Women and children

For the benefit of the large numbers of women workers now employed in Textile Mills, Cashewnut Factories, Coffee Curing Factories, etc., the Government have appointed an Inspectress of Factories with headquarters at Coimbatore to enlighten them about their rights and also to ensure proper administration of the provisions relating to women and children. Baby Creches are provided by many of the employers to enable the women workers to leave their young children without care and anxieties under the care of qualified nurses who will provide cradles and other necessary equipment, besides supplying free milk and nourishments.

A Lady Labour Welfare Officer has also been appointed by the Government for the Nilgiris district with headquarters at Coonoor to work out and promote a welfare scheme for the benefit of the workers employed in Plantations in the district, to contact the workers in each estate and teach them the elements of sanitation, house-keeping, etc.

Housing

Apart from contributions to the health and comfort of the worker, housing provides him with a better standard of living and increases his productivity. Money spent in providing decent houses will yield returns in dividends of human happiness, contentment and increased efficiency. While some of the Textile Mills in the State and the Cement Factories at Madukarai and Dalmiapuram have already provided houses with free electricity and water facilities to their workers either free of rent or on a nominal rent, others are taking advantage of the Subsidized Industrial Housing Scheme of the Government of India under which the Central Government grant 25 per cent of the actual cost of construction including cost of land as subsidy and 37½ per cent as loan, repayable with interest at 4½ per cent in 15 years.

If housing is undertaken by State Governments or Statutory Housing Boards, the Government of India grant 50 per cent of the actual cost of construction including cost of land, as subsidy and the remaining 50 per cent as loan repayable with interest at 4½ per cent in 25 years. Standard of accommodation, cost of tenements for purposes of lands and subsidy and the rent to be charged have also been prescribed in the scheme.

The Government of India have approved the scheme of the State Government for the construction before 31st December 1955 of 936 one-roomed single storeyed tenements, 486 at Sembiam and 450 at Erukancheri, in accordance with the plans and specifications approved by them for housing the industrial workers for which they have sanctioned a subsidy of 12.46 lakhs and an equal amount as loan to the State Government. The upkeep and maintenance of the two labour colonies as well as the allotment of houses and collection of rent will be entrusted to a managing committee consisting of three representatives each of employers and employees with an officer of the Labour Department as Chairman.

There was a synthesis of different influences in the progress and policies of the First Five-Year Plan, which took in its stride many a progressive trend calculated to do justice to labour. The emphasis in the Second Five-Year Plan has been shifted to provide for larger employment opportunities and for the improvement in the general standard of living of the people.

Towards a Socialist Society

In the drift towards the attainment of a Socialistic Society a modest scheme of Labour Welfare has been proposed by the Government of Madras as part of their Second Five-Year Plan during which period it is proposed to open five Labour Welfare Centres to start with, two at Coimbatore, two at Madras and one at Madurai at an estimated cost of Rs. 12.15 lakhs, to provide educational and recreational facilities to the industrial workers and the families and to teach them some spare-time occupations. Each centre will be placed under the charge of a Physical Instructor to provide indoor and outdoor games and will also be

equipped with sewing machines and equipments for sewing, knitting and embroidery to give training to the working-class women.

A full-time nursery school equipped with scientific Montessori and Kindergarten apparatuses may be provided at each centre for the benefit of children up to five years besides conducting adult education classes.

A separate literary class may be conducted at each centre for the benefit of women workers with the object of bettering their conditions of living and also to provide proper training to women in the daily maintenance of their homes, particularly with regard to the proper care and bringing up of their children.

A radio will be installed and musical instruments like violin and harmonium will be kept in each centre for purposes of entertainment and the workers encouraged to make use of them to organise amateur dramas, musical entertainment programmes, etc.

A library and a reading room equipped with newspapers and interesting periodicals including easily understandable journals of special interest

to industrial workers, women and children may be provided.

It is also proposed to take the workers on excursion to places of importance. A swimming pool is also proposed to be attached to each centre.

The extension of the Employees' Provident Fund Scheme to cover industries employing more than 10,000 workers in the country, the extension of the Employees' State Insurance Scheme to cover all factories under the Factories Act of 1948 and if possible to Mines and Shops and Establishments employing a specific number of persons, extension of the benefit period for sickness benefit, extension of adequate hospital facilities, the encouragement of workers' education by the offer of free scholarships, training of graduates and non-graduates in approved institutions for giving training to Trade Unions, employers, etc., the setting up of industrial museums at important industrial centres as part of a co-ordinated plan for education in safety, health and welfare, training of 500 personnel, expansion of the activities of the Employment Exchange in certain fields are some of the other schemes under consideration.



Sri C. Subramaniam, Minister for Education, inaugurating the Pilot Scheme for Integrated Co-operative Credit under the Second Five-Year Plan at Coimbatore.

Welfare of Plantation Workers

The Central Tea Board, Calcutta, has made a grant of Rs. 35,000 to the State of Madras for being utilised on Labour Welfare measures in Tea Plantations in this State. The Government of Madras have sanctioned a scheme for the opening of a Demonstration-cum-Training Centre in the basket-making area where there is considerable demand for baskets and a number of the estate labourers and their dependents are willing to take up this training. An initial expenditure of Rs. 300 for constructing a suitable

shed for the training centre has also been sanctioned and the centre has been actually opened on the 21st September this year by the Labour Welfare Officer, Coonoor, with fifteen trainees on a monthly stipend of Rs. 15 per month.

The provision of other items of welfare work such as training in handicrafts, handloom weaving, carpentry, tailoring, lessons in house-keeping and family-planning for women and girls, visual education through film shows, exhibition charts, talks and news boards, lectures on maternity and child welfare, ante-natal and post-natal care

of children, lessons in cooking and nutritive value of food is also under consideration.

Welfare work cannot yield quick results. But there can be no doubt that measures calculated towards securing labour welfare would in the ultimate analysis lead to increased output, increased efficiency, diminished sickness and increased happiness of the greatest number of workers. This will place the State in a rightful place in the comity of Nations and with this the foundation for industrial peace would have been truly laid.



A group of Todas of the Nilgiris who had gone to Delhi to participate in the Republic Day Celebrations visited Madras on their way back. Picture shows the visitors with Sri K. Kamarej, Chief Minister, Sri W. R. S. Sathianadhan, Chief Secretary, and others when they called on the Chief Minister at the Secretariat on 4th February 1956.

*All India Radio, Tiruchirappalli***Rural Programmes for March 1956**

Thursday, 1st March 1956—

'Singan Singi'—Dance Drama.
Market rates, water level readings and weather report.

Friday, 2nd March 1956—

'Oyil Kummi' by M. N. Muthuveerappa Mudiraj and Party.
Karahatta Attam by R. Alayi Ammal.
Market rates, water level readings and weather report.

Saturday, 3rd March 1956—

Lavani: by M. Ellammal and S. Shaik Dawood.
Market rates, water level readings and weather report.

Sunday, 4th March 1956—

Poosa Sweet Potato—Discussion.
Manchal Veyyil—Song.
Kolumbu Machchan—Sketch.
Market rates; water level readings; topical discussion; weather report.

Monday, 5th March 1956—

Cattle welfare: Prevention of disease.
Naiyandi Melam by K. Karuppiyah and Party.
Market rates; water level readings; topical discussion; weather report.

Tuesday, 6th March 1956—

Farm Forum—Discussion.
Ponnana Simaiyile—Song.
Namakku Vendam (2) Moi Murai.
Market rates; water level readings; topical discussion; weather report.

Wednesday, 7th March 1956—

Listener's Letters.
Poocharam.
Market rates; water level readings; topical discussion; weather report.

Thursday, 8th March 1956—

Farm Forum—Discussion by S. Muthuswami Gounder.
Tudippadalgal.
Market rates; water level readings; topical discussion; weather report.

Friday, 9th March 1956—

The Village Welfare Association:
Participant: Rev. Fr. Rex Manikkam.
Irulil Oli—Feature.
Market rates; water level readings; topical discussion; weather report.

Saturday, 10th March 1956—

Grama Kalakshhepa Mandapattil:
'Sivaratri Mahatmiyam'.
Weekly review of market rates.
Market rates; water level readings; topical discussion; weather report.

Sunday, 11th March 1956—

Grama Panchayat: Kuzhandaiyai Pallikku Anuppada Vazhakku.
Market rates; water level readings; topical discussion; weather report.

Monday, 12th March 1956—

Kashmir: Gardens of Kashmir.
Kalla Part Songs.
Market rates; water level readings; topical discussion; weather report.

Tuesday, 13th March 1956—

Farm Forum—Discussion: Participant: N. Chockalingam.
Ethamirakkannam—Song.
Sillarai Vishayangal—Sketch.
Market rates; water level readings; topical discussion; weather report.

Wednesday, 14th March 1956—

Diet and Health: Discussion.
Folk songs.
Market rates; water level readings; topical discussion; weather report.

Thursday, 15th March 1956—

Farm Forum—Discussion.
Grama Pattum Katchiyum—Musical Feature.
Market rates; water level readings; topical discussion and weather report.

Friday, 16th March 1956—

Folk song Lesson.
The Village Women's Forum.
Thalattu Padalgal.
Market rates; water level readings; topical discussion; weather report.

Saturday, 17th March 1956—

Mudiyor Kalvikoodam: Tirukkural (Vehamai—Kural Nos. 171 and 172).
Valluvar Thanthu Tirumurai—Song.
'The Scheduled Tribes'—Talk in Tamil by Sri G. E. Muthirulandy, Director of Harijan Welfare, Government of Madras.
Weekly review of Market rates.
Market rates; water level readings; topical discussion; weather report.

Sunday, 18th March 1956—

Gramam Povome—Programme recorded at a village.
Market rates; water level readings; topical discussion; weather report.

Monday, 19th March 1956—

Naveena Suyamvaram—Dama-yanthi: Play by 'Sukhi';
Market rates; water level readings; topical discussion; weather report.

Tuesday, 20th March 1956—

Farm Forum—Discussion.
'Sikkanamaiyiruppom'—Song.
Namakku Vendam (3) Soonyam Vaithal.
Market rates; water level readings; topical discussion; weather report.

Wednesday, 21st March 1956—

'Aindandu Sadanai' Feature on Five-Year Plan.
Market rates; water level readings; topical discussion; weather report.

Thursday, 22nd March 1956—

Farm Forum—Discussion.
Tudippadalgal.
Market rates; water level readings; topical discussion; weather report.

Friday, 23rd March 1956—

The Pial School of Political Science—Discussion.
Irulil Oli—Feature.
Market rates; water level readings; topical discussion; weather report.

Saturday, 24th March 1956—

Mudiyor Kalvi Koodam.
Tirukural.
Vehamai (Kural Nos. 173 and 174)
Folk songs.
Weekly review of market rates.
Market rates; water level readings;
topical discussion; weather report.

Sunday, 25th March 1956—

Gramma Kalakshhepa Manda pattil—
Pattinathar.
Market rates; water level readings;
topical discussion; weather report.

Monday, 26th March 1956—

Heat-stroke in poultry: Discussion
Lavani.
Market rates; water level readings;
topical discussion; weather report.

Tuesday, 27th March 1956—

Farm Forum—Discussion.
Pesum Silai—Feature in Ballad.
Market rates; water level readings;
topical discussion; weather report.

Wednesday, 28th March 1956—

'Listeners' Letters.
Poocharam.
Market rates; water level readings;
topical discussion; weather report.

Thursday, 29th March 1956—

Farm Forum—Discussion.
Pattaikelungal—Songs on the Five-
Year Plan.

Market rates; water level readings;
topical discussion; weather report.

Friday, 30th March 1956—

Gramma Padasalayil (3) Kumara
Kuruparar.

Onre Kulam—Feature
Market rates; water level readings;
topical discussion; weather report.

Saturday, 31st March 1956—

Mudiyor Kalvi Koodam—Tirukkural
Vehamai (Kural Nos. 175 and 176)
Folk songs.
Weekly review of Market rates.
Market rates; water level readings;
topical discussion; weather report.

(Continued from page 23)

overcome by State participation in agricultural credit on a large scale and development of warehousing and processing as envisaged in the Rural Credit-Survey Report. The most important problem would however be to maintain the production equation in agriculture at the highest level possible so that the comparative advantage of a depressed industry may not be further lowered. The price factor should not therefore be lost sight of. Even though the economic overheads like irrigation and power will directly help the agricultural sector, it must depend largely on its own resources and savings which largely depend on the price factor.

Agriculture will play a large part in keeping the national economy at an even keel in a rapidly developing economy.

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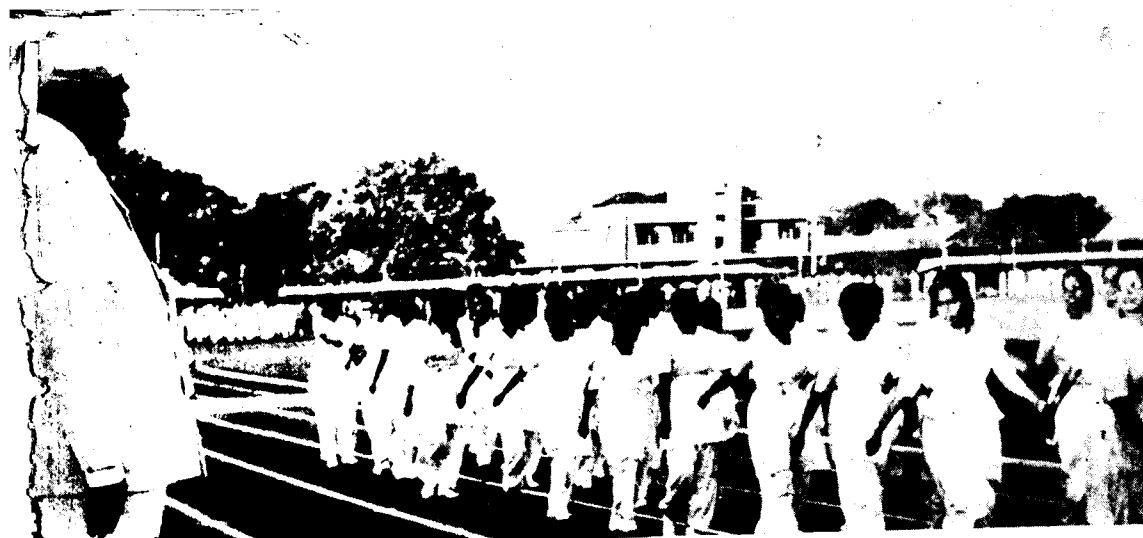
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32A

N.C.C. SPORTS RALLY

Pictures taken on the occasion of National Cadet Corps Sports and Parade held in the City. *Bottom-right:* Dr. A. Lakshmanaswami Mudaliar, Vice Chancellor, Madras University, giving away the prizes.

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Budget Supplement to Madras Information, March 1956

Madras Budget for 1956-57

Salient Features : Relief, Reconstruction and Stress on Rural Industries

Highlights

This year's Budget proposals include four taxation measures to cover a deficit budget of Rs. 311 lakhs. The new taxes are expected to yield Rs. 155 lakhs leaving a deficit of Rs. 166 lakhs which has been left uncovered. The new taxes are—

(1) The tax on diesel oil will be enhanced from $1\frac{1}{2}$ annas to 4 annas per gallon to bring in an additional revenue of Rs. 30 lakhs per annum.

(2) An additional sales tax of one anna in the rupee will be levied on the sale of sugar at any one suitable point, to yield about Rs. 40 lakhs per annum.

(3) The rate of supply of electric energy to licensees and bulk consumers on the High Tension

tariff in the Hydro-electric areas will be stepped up by 30 per cent. The proposed measure may bring in about Rs. 45 lakhs per annum.

(4) Ryotwari assessment will be levied on inam lands in lieu of quit-rent. This measure may bring in about Rs. 30 lakhs per annum.

The one tax relief proposed is the exemption from sales tax on the sale of palm-gur at all points. With the additional taxation now proposed, the Revenue gap will be reduced to Rs. 166 lakhs. The deficit is still large but should not cause alarm, because it is of the order which can be wiped off by the upward trend in revenues in a year of fair seasonal conditions.

Capital Expenditure.

The Capital Expenditure for the year is estimated at Rs. 27.61 lakhs made up of Rs. 13.07 lakhs on



The Finance Minister presenting the Budget to the Legislature

little enhancement in their pay. Upper division clerks in the Secretariat will get higher increments in the earlier stages of their career. Certain disabilities of typists and stenographers in the fixation of their pay on promotion and of Personal Assistants and clerks of Ministers in their leave salary, are being removed. Attenders in Government offices and Civil Courts will get a slight enhancement in their annual increments. Copyists and Examiners in Criminal Courts will put on regular scales of pay instead of being paid on the basis of piecework. The scales of pay of compounders and Lay Secretaries of Hospitals will be revised in their favour. District Officers will be given a higher rate of mileage on journeys in excess of 40 miles, when done in their own motor vehicles.

Community Development.

The Budget provides for the opening of four new community development blocks in the flood-stricken areas of Ramanathapuram district in April, 22 blocks spread over the State by October, and another 28 blocks towards the end of the year for which preliminary work will be done during the Budget year. Rs. 278 lakhs has been earmarked for these services.

On Local Development works, the original provision of Rs. 83 lakhs was enhanced to Rs. 134 lakhs in the course of the year; and with the people's contribution in cash, works costing about Rs. 185 lakhs are expected to be done in the year. The Budget provision for the ensuing year is now being fixed at Rs. 80 lakhs enabling the execution of works costing about Rs. 120 lakhs including people's contribution.

Adequate stocks of foodgrains were rushed to the area and sold at pre-cyclone rates, to keep down the price-level. Takkavi and subsistence loans are now being disbursed on a liberal scale for the relief of the middle-class people who had lost their houses, cattle, crops and other means of livelihood. Free supplies of chemical manures and seeds have been arranged wherever crops can be raised afresh. Water was let down from the Periyar Reservoir to the tanks in the Vaigai system which could be so replenished. Remissions will be granted on a generous scale and instalments of Takkavi loans will also be postponed. All steps necessary to place the stricken people back on their feet have been taken, and we may note with some satisfaction that this fact is being generally appreciated.

It is not easy to reckon the loss sustained by the people in terms of money, but we can have a measure of the distress from the cost to the Government on direct relief. The Revised Estimates for the year provide for an outlay of Rs. 150 lakhs on these measures; and the spill over into the ensuing year is expected to be Rs. 212 lakhs making in all about Rs. 8½ crores. Another sum of about Rs. 1½ crores will be required for distribution as loans to agriculturists. More than half the direct outlay will be

We must record our gratitude to the Prime Minister who gave the lead to our appeal for funds, with a donation of Rs. 2 lakhs from his Relief Fund. We should also be grateful to the King of Saudi Arabia who happened to be touring in the country at that time for a contribution of Rs. 50,000. The response from the general public has been most heartening, especially the fact that a large number of people of very small means and workers in organized industries have spontaneously come forward with their humble contributions in cash and kind. It is obviously not possible to name the individuals and institutions who donated generously, but special mention may be made of the Indian business community in Singapore and Malaya who made a handsome contribution of over Rs. 3 lakhs. Amongst the non-official relief organizations, the work of the Ramakrishna Mission stands out in high distinction. The workers of the Mission were in the worst-affected Vedaranyam area immediately after the disaster, and practically set the pattern of relief, for which the people in those villages will ever remember them. We owe a deep debt of gratitude to these workers also. We owe the *Dinamani* Newspaper which organized the necessary relief fund to sustain them in the field. Our district officials in the area had to bear the brunt of this trying work, and they did discharge their duties with devotion and sympathy. Let us hasten to place on record our appreciation of the good work turned out by one and all of them. We may also note with satisfaction the speed with which the Railway administration repaired the damaged track and restored through communications to the affected areas.

Seasonal Conditions.

Even though we regret the heavy loss sustained in this cyclone, we are thankful for the widespread rains which accompanied the gale. These rains were timely all over the State and have ensured fair seasonal conditions for the year. There is still some distress in the Nanguneri area of Tirunelveli district, and adequate measures are being taken to meet that local situation. Crop pests are being reported from certain districts but the department has been able to deal with them and avert extensive damage. Grain prices are steady and we may generally hope for a fair agricultural year. The storage in the Mettur Reservoir is, however, low and there may be some difficulty in maintaining power supplies in the

Revenue and Expenditure on Revenue Account.

		Budget Estimate, 1956-57.
		RS. LAKHS.
A. Revenue	.. .. .	60,77·95
B. Expenditure	on Revenue	62,43·83
Account.		
Final Revenue,	surplus (+) or	—165·88
deficit (—).		

Current Five-Year Plan.

The New Five-Year Plan.

The House had an opportunity earlier to discuss the broad outlines of the draft State Plan that was presented to the Planning Commission. The Commission suggested various modifications to limit the outlay within the resources in sight for the country as a whole. The pattern of Central assistance on the various schemes to be financed from the current revenues has yet to be finalised in many cases. The size of the State Plan will depend largely on the resources which can be raised within the State during the next five years. It is not therefore, practicable, nor is it the intention of the Planning Commission, to give a precise shape to the Plan forthwith. Alterations will have to be made from year to year according to the availability of resources, both local and Central, and the ability of the administrative machinery to implement the Schemes sanctioned in that year. What is of immediate significance is the programme of work to be carried out during the coming year within the broad frame work of the Plan. Hon'ble Members may kindly peruse the list of nearly 50 new schemes proposed for inclusion in the Budget printed

as an Appendix to the Budget Memorandum. A comparison of this list with the list of schemes of the various departments incorporated in the draft Plan already discussed in the House, will indicate the measure of fulfilment that may be anticipated during the Budget year. By and large, we propose to initiate during the year most of the worthwhile schemes included in our original draft.

Agriculture.

In the field of agriculture, the main targets set in the Plan are to increase the production of foodgrains by 7 lakhs of tons and of sugarcane by one million tons. Since we have almost reached the limit on irrigation, the targets should be reached mainly by improved methods of cultivation. The Plan envisages the opening of 400 State-owned seed-farms of 25 acres each for the production of primary seeds which when multiplied will meet the requirements of the State. It is proposed to start 50 seed-farms in the Budget year mostly in the Extension Development Blocks. For the control of pests and diseases, 4 plant protection units will be opened in the year where insecticides and sprayers will be stored for being rushed to affected areas. A Central Sugarcane Research Station at Nellikuppam and a sub-station at Tiruchirappalli are being set up in the year. A scheme for the encouragement of the cultivation of sugarcane of higher sugar-content is being initiated. Research Schemes on improved strains of millets and cashew and for the eradication of pests in betel-vines are being sanctioned. Provision is also being made for liberal loans for horticultural developments. The Agricultural College is being expanded to increase the admissions from 108 to 162. A new land colonization scheme to develop the Attapady valley in Malabar district is being sanctioned. The new road to open up this valley has been started last year and the work is making fair progress. Amongst the intensive manuring schemes, the provision for the distribution of about one lakh tons of ammonium sulphate is noteworthy.

Animal Husbandry.

In Animal Husbandry, our main effort should be on improving the breed of village cattle. But we are short of pedigree bulls and therefore we should rear up an adequate stock of them. That is the significance of the Key Village Scheme under which country bulls in the selected villages will be castrated and servicing will be done entirely through pedigree bulls and artificial insemination, so that in course of time the breed in the villages improves. We are extending the Key Village Scheme to 54 new villages in the year. A subsidy of Rs. 10 per month will be given for the proper maintenance of about 2,000 bull-calves born in key villages. These new breeding bulls will be stationed in Extension Centres outside the key villages and seven such centres will be opened during the year. The number of artificial insemination centres in urban areas is being increased by another 5. A new cattle farm is being opened in Ramanathapuram district, and improvements are being sanctioned to many of the existing farms. The College of Animal Husbandry is being strengthened so as to increase the admission from 80 to 120 in the College course, and from 55 to 100 in the Compounder's course. The details of the dairy scheme for Madras City are being worked out by a special officer, and it will be launched

during the course of the year. Under this Scheme, a farm of about 4,000 milch cows will be started at Erukkancheri near Madras, so that the milk needs of the City can be adequately supplemented. The City sewage will be diverted to this farm for raising the required fodder. A Regional Poultry Development Farm of about 6,000 birds will be opened at Coimbatore during the year with 5 attached extension centres to serve the various extension service blocks.

Forests.

We have not paid much attention to our forests during the First Plan period. Our Panchayat forests lie neglected, and it is proposed to make a start in their regeneration by taking up an extent of about 35,000 acres for soil conservation and tree planting. Systematic afforestation will be attempted on 45,000 acres of hill forests of the central districts. About 8,000 acres are being taken up for cashew cultivation and 5,000 acres for casuarina plantations. Intensive planting of valuable timbers like teak and rosewood under irrigated conditions will be started on 6,000 acres, wherever facilities occur. An attempt will also be made to grow these trees on river and canal margins in our deltaic areas. Industrial plantation such as blue-gum, wattle and match-wood will be started on the hill forests. Provision has also been made for improvements to communications for the better exploitation of interior forests. Amongst the miscellaneous schemes, mention may be made of the one for the improvement of the sanctuary for wild animals in Mudumalai in the Nilgiris and for the cultivation of pepper in reserved forests. A start will be made on all these Schemes of forest development and let us hope that the department will raise up to the accelerated tempo envisaged.

Community Development and National Extension Services.

The new Plan hopes to cover the entire State with National Extension Services or Community Development Blocks and thereby to achieve a fair measure of fulfilment of the village and district plans. About 850 additional blocks will have to be taken up for this purpose. The Budget provides for the opening of 4 new blocks in the flood-stricken areas of Ramanathapuram district in April, 22 blocks spread over the State by October and another 28 blocks towards the end of the year for which preliminary work will be done during the Budget year. A sum of Rs. 278 lakhs has been ear-marked for these services. We have done rather well during the current year on Local Development works, for the benefit of areas not covered by Extension Services. The original provision of Rs. 83 lakhs was enhanced to Rs. 134 lakhs in the course of the year; and with the people's contribution in cash, works costing about Rs. 185 lakhs are expected to be done in the year. The Budget provision for the ensuing year is now being fixed at Rs. 80 lakhs enabling the execution of works costing about Rs. 120 lakhs including people's contribution. As the area under Extension Services enlarges, the expenditure under this head will gradually taper down.

Co-operation.

In the field of co-operation, it is proposed to implement some of the major recommendations of the Rural Credit

Survey Committee on agricultural credit, ware housing facilities and Co-operative Marketing. We have to make a start in setting up the necessary apex institutions and their branch organizations in the countryside so as to enable the co-operative sector to handle at least 20 per cent of Agricultural credit and 10 per cent of the marketable agricultural surplus. Provision has been made in the Budget for subscribing Rs. 30 lakhs towards the share capital of a State Warehousing Corporation, Rs. 30 lakhs towards the share capital of 3 Co-operative Sugar Factories and about Rs. 10 lakhs towards the development of marketing facilities. In order to train the necessary field staff, a new training institute is being opened at Madurai and the existing one in Madras is being upgraded into a College. On Co-operative housing, provision has been made for a loan of Rs. 56 lakhs to Urban Societies and grants and loans up to Rs. 10 lakhs for Industrial Housing Societies.

Irrigation.

Our Irrigation programme is making fair progress. The Lower Bhavani Project has been completed and practically the whole ayacut is now under cultivation. Irrigation has also commenced in the Malampuzha Project, but the right bank canal sanctioned recently will take some more time for completion. The Manimuthar, the Mettur Canals, the Araniar, the Mangalam and the Walayar Projects are expected to be completed in the Budget year. Work is in full progress on the Amara-vathi, Vaigai, Sathanur and Krishnagiri Projects sanctioned last year. The Budget provision for all these works is Rs. 563 lakhs and additional sums will be made available, if our Engineers can accelerate the progress. Of the new schemes included in the Plan, the Meenakarai Scheme of Malabar estimated to cost Rs. 50 lakhs will be started at once, making use of the staff and machinery expected to be released from the Walayar and Mangalam Schemes. There is a provision of Rs. 2 lakhs for this scheme in the Budget. Token provision only has been made for the other approved schemes of Kattalai, Pullambadi, and Vidur, since it is proposed to speed them up only as machinery and men are released from other projects now nearing completion. There has been a temporary upset in the minor irrigation programme due to diversion of staff for repairing the tanks breached in the cyclone in Ramanathapuram, but this will soon be made up and the programme will be accelerated. A provision of Rs. 123 lakhs has been made in the Budget for the minor irrigation programme, which includes an experimental scheme of desilting of tanks, wherever that can be done with economy. We are also sinking about 30 tube-wells in the year at a cost of about Rs. 6 lakhs.

Electricity.

Steady progress is being maintained on our Electricity programme. The Revised Estimates for this year show an outlay of Rs. 11.47 lakhs which is practically the same as in the Budget Estimates. Work is in full swing on the Periyar Project and preliminary works have commenced on the Kundah Project. Our expectation that about 600 villages can be electrified during this year will be fully realised, since we have already done about 550 villages by the end of January. The provision for the ensuing year is now fixed at about Rs. 13 crores, and this includes a sum of Rs. 2 crores on the Kundah Project,

the first stage of which can be completed in the Plan period at a cost of about Rs. 23 crores to release about 1,45,000 kilo-watts of power. The Rural Electrification programme will be maintained steadily, and more than 600 villages can be expected to receive the benefit in the Budget year. Investigation has been taken up for the development of further seasonal power from the vast irrigation discharges at Mettur. All this power can be harnessed and made full use of in industry, when the Neiveli Lignite Project becomes an accomplished fact in the near future, as indeed all of us earnestly hope.

Highways.

Even though our road system is comparable to the best in the country, the progress has not been as fast as we had originally planned; and there was appreciable short fall in the outlay during the first Plan period. It is now proposed to accelerate the pace, more particularly on village communications; and for this purpose, a grant of Rs. 45 lakhs is being made to local bodies. A substantial portion of the allotment for Local Development Works will also be spent on village roads. With the augmentation of the resources of local bodies by the proceeds of the levy of 2 annas in the rupee on land revenue, authorized in the current year, we may hope that these bodies will be able to maintain the new village roads adequately. To give them further relief, the maintenance of about 45 miles of district roads will be taken over from them at an annual cost of Rs. 12 lakhs. The provision for the improvement of State roads and bridges is now fixed at Rs. 109 lakhs as against Rs. 41 lakhs in the current year. Larger funds will be ear-marked for the black-topping of important stretches of State Highways. In addition, an outlay of Rs. 97 lakhs has been programmed in Malabar and South Kanara on the West Coast Road, Rs. 67 lakhs on roads of inter-State and economic importance, and Rs. 71 lakhs on National Highways, all financed from Central revenues.

Public Health.

On the medical side, the Plan provides for the opening of 140 new Health Centres, each in charge of an Assistant Surgeon to serve the needs of rural areas. Twenty-eight of these new medical institutions will be started in the Budget year at a cost of about Rs. 12 lakhs. Six taluk headquarters hospitals, 18 rural dispensaries, 12 local-fund dispensaries and one private women's hospital will be taken over for direct Government management. Additional buildings will be provided for the taluk headquarters hospitals of Badagara and Karkal. Three mobile medical units in Malabar and one in North Arcot will be sanctioned for the benefit of hill-tribes. The strengths of district and taluk hospitals are being increased wherever additional space has been made available. Large sums have been ear-marked for providing additional buildings and amenities for the teaching hospitals in the City and Madurai. A new mental hospital will be opened at Madurai. Provision is also being made for training an increased number of nurses and maternity assistants and for sending medical officers overseas for higher studies. In public health, 120 new maternal centres are being opened. Another mobile epidemic unit with 2 jeeps, is being added to the existing strep-

Water-supply.

Our Rural Water-Supply programme is now made up of 3 parts: the comprehensive programme financed in full by the State; the National Water-Supply programme for the benefit of areas with a heavy incidence of cholera on which we get a half-grant from the Centre; and the Local Development programme on which the Centre meets the full cost. We are collecting contributions from villagers and panchayats, wherever possible, and operating the 3 schemes under one agency. The provision in the Budget under all these three heads is Rs. 95 lakhs; and with the anticipated people's contribution, works costing about Rs. 150 lakhs may be done in the year. On urban water-supply, we have started works in about 15 municipalities, and the City Corporation has also launched an ambitious programme of improvements including the installation of mechanical filters. Progress has been somewhat slow in the current year and the allotment of Rs. 174 lakhs may not all be spent. The spill-over will be added on to the provision of Rs. 145 lakhs for the Budget year and the works will be speeded up.

Education.

Our Plan for education has been reduced by the Planning Commission to about half its original size, and therefore we have to re-examine the schemes. The House should also have an opportunity of discussing the recommendations of the Dr. Alagappa Chettiar Committee on Elementary Education before the development programme of the department is finalised. In the meanwhile, it is proposed to include only a lump-sum provision of about Rs. 125 lakhs in the Budget, made up of Rs. 95 lakhs in the revenue account and Rs. 30 lakhs for buildings under Capital. This provision will be suitably disbursed during the course of the year, as the new schemes are ready. Within the present limited provision, about 2,000 new classes will be added to strengthen the existing elementary schools and also to open new schools, wherever necessary. Sixteen more ordinary training schools will be converted into basic training schools. The Bifurcated courses of study in secondary schools and craft training in middle schools will be extended to a few more schools. The disparity in the scales of pay of secondary grade teachers employed in the different types of schools, has been causing some discontent and it is proposed to remove this and bring all secondary grade teachers on to the higher scale. Children of elementary school teachers, police constables and head constables and last grade Government servants will be given full fee concessions instead of half, in Forms IV to VI. It is hoped that these concessions may gradually be extended to other classes of people in coming years, so that school education is free to all poor children. It is also proposed to give scholarships to about 10 per cent of the poor boys attending professional colleges, the grants being made purely on considerations of merit.

Harijan and Backward Classes.

The welfare of Harijan and Backward Classes continues to receive the close attention of the Government. Of late, the Government of India has been giving several scholarships to students of these communities, the awards being made largely on merit, and this goes an appreciable way to supplement our efforts. The provision in the Budget on these services is Rs. 184

lakhs, as against Rs. 118 lakhs in the Revised Estimates for the current year. Our expenditure on these ameliorative measures is now more than what it was for the Composite State, before the separation of Andhra.

Handloom.

From the list of New Schemes for the year, Hon'ble Members may see that our largest effort in the year is on village and small-scale industries. The pattern of development in this field has been laid down broadly by the Karve Committee in their report published recently. We are glad to note that our contention that the handloom industry should be fully protected, has been emphatically upheld by the Committee which has further suggested that the turnover of mills should be frozen at about the existing capacity, reserving further cloth production to the handloom. The Committee has recommended an outlay of Rs. 80 crores during the Plan period for the rehabilitation of the handloom industry, of which the allocation to this State is Rs. 22 crores. The various schemes to be implemented in the year have yet to be approved by the All-India Handloom Board, and they will be sanctioned in the course of the year for which a sum of about Rs. 1½ crores will be released from the Central Cess Fund. Broadly, the schemes envisaged are for enlarging Co-operative production and marketing organizations to control about half the turnover of the industry; for improving the technique and patterns; and for subsidizing the sale, so as to enable handloomers to compete on even terms with mill goods. We may note with satisfaction that the industry has already turned the corner; and with the measures now envisaged, let us hope that the 6 lakhs of weavers in the State will face the future with hope and confidence.

Khadi.

The Karve Committee has also recommended a substantial increase in the production of khadi to absorb idle agricultural labour and has ear-marked a large outlay for that purpose in the Plan period. The controversy whether further development should be only through the Ambar Charka, is still going on and presumably accounts for the delay in the Statewar allocation of the intended outlay. In the meanwhile, we are starting 25 new Khadi Development Centres immediately to benefit about 12,500 spinners and 400 weavers. We are also opening 5 workshops for the manufacture of ordinary charkas and allied implements to meet the needs in our villages.

Village Industries.

On Village industries, it is proposed to assist village artisans by providing cheap credit, by supplying improved tools on hire-purchase, raw materials at cost price, and land free of cost for setting up their workshops. Schemes are also being sanctioned for the encouragement of hand-pounding of rice, oil-pressing in country ghanis, cotton ginning, tanning, bee-keeping and other village avocations. A few multi-purpose work centres will also be opened for the training of village artisans.

Handicrafts.

Handicrafts.

Under handicrafts, it is proposed to establish sale emporia in Bombay, Calcutta and Delhi. Several training-cum-production centres will be opened for art metalware, bell-metalware, cutlery, paper toys, palmyra fibre works, cane works, bamboo articles, cumbles, lace embroidery, glass bangles, etc. We are also proposing a few schemes on the co-operative pattern for the development of the coir industry in Malabar.

Small-scale Industries.

Small-scale Industries.

Our approach to the development of small-scale industries is from many directions. The State Aid to Industries Act is being amended to permit the grant of loans on a more liberal scale without too rigid an insistence on the margin of security. The Bill will come before the House in the current session and a provision of Rs. 20 lakhs has been made for disbursement as loans. It is proposed to supply machinery on the hire-purchase system for which a sum of Rs. 6 lakhs has been allocated. There is also provision for subsidy towards transmission lines and power supply to new industries. Five new industrial schools are being opened and improvements are being made to all the polytechnics, so as to double their capacity. Mobile units of carpentry and blacksmithy are being organized to tour the villages and assist and better equip village artisans. Work has just commenced for starting three industrial estates at Guindy, Palghat and Virudhunagar, and a fourth one, the location of which has not been settled, is proposed for the next year. These estates will provide built-up factory space with all amenities like communications, power, water-supply, sanitation and servicing facilities. For the present, they will be owned by the State, but as the Estates develop, the management can be handed over to co-operative organizations. A large number of service-cum-production centres are being opened in articles like finished leather, laboratory equipment, surgical instruments, agricultural implements, hand tools, brassware, electrical goods, textile mill goods, sports goods, etc. The emphasis of these institutions will be on the training of personnel for absorption in the private sector, the production side being intended mainly to educate the trainees on the commercial aspects of manufacture. These units may in due course be handed over to industrial co-operatives for management. In selecting the location of these units, the department will naturally go by the availability of raw materials, but it will also have an eye on fair regional distribution. The programme does look ambitious but the units will be started, only as and when qualified experts are secured to run them. Let us hope that the measures proposed for the year will soon materialise and go an appreciable way towards generating an industrial climate in our State, so badly needed at the present juncture.

Revised Estimates, 1955-56.

Revised Estimates, 1955-56.

The Revised Estimates for the current year as now fixed, show a Revenue of Rs. 52.68 lakhs and expenditure of Rs. 54.89 lakhs, leaving a deficit of Rs. 221 lakhs. There is a betterment in revenue over the Budget Estimates of Rs. 71 lakhs under 'Stamps', presumably

due to larger filing of suits in courts, after the moratorium; Rs. 60 lakhs under 'Forests' owing to higher prices of sandalwood; and Rs. 50 lakhs under 'Agricultural Income-tax'. The balance of the increase in Revenue is due to larger departmental receipts and grants from the Government of India, on Community Development, National Extension Services, Local Development Works and Grow More Food Schemes. The increase in expenditure is accounted for by the expansion in development services and the outlay on cyclone-relief amount to about Rs. 150 lakhs in the year. Variations from the Budget Estimates under each head are explained in detail in the Budget Memorandum. The Capital expenditure is expected to be about Rs. 20½ crores, which is practically the same as in the Budget Estimates, and the small variations under individual heads call for no special remarks. Under 'Loans and Advances', the net disbursement is expected to be Rs. 576 lakhs, registering an increase of about Rs. 2 crores from the Budget Estimates. The bulk of the increase is on the larger outlay in the area affected by the cyclone. The year is expected to close with a fair cash balance of nearly Rs. 2 crores, and this was made possible by the remarkable success of our open market loan of the year. As against the advertised sum of Rs. 7 crores, subscriptions amounted to over Rs. 14 crores, and we ultimately accepted about Rs. 10½ crores.

Budget Estimates, 1956-57.

The Budget Estimates for 1956-57 anticipate a Revenue of Rs. 59.33 lakhs on existing level of taxation, and an expenditure of Rs. 62.44 lakhs leaving a deficit of Rs. 3.11 lakhs. The Revenue shows a rise of about Rs. 6½ crores from the Revised Estimates for the current year, but about half of this increase is not real Land-cess and surcharge on Stamp Duties payable to local bodies were hitherto deducted from the receipts under 'Land Revenue' and 'Stamp Duties' respectively, and the net receipts under these two revenue heads were alone taken into the Budget. A change in this procedure has now been directed by the Auditor-General, according to which the gross receipts under these heads will be shown in the Budget as 'Revenue' and the disbursements to local bodies will be shown on the expenditure side of the Budget, with the resultant bloating of the Budget figures to the extent of about Rs. 3 crores. Real increases in revenue are expected on electricity schemes by about Rs. 40 lakhs, due to the enlargement of the grid; on Agricultural Income-tax by about Rs. 50 lakhs, as that measure turned out to be more paying than originally anticipated; and in Centre Grants by about Rs. 110 lakhs, consequent on the expanding tempo of development expenditure eligible for Central assistance. It has been our practice to debit the Revenue Account, several items of expenditure of an essentially Capital nature as on roads, bridges, water-supply and the smaller building schemes costing less than Rs. 5 lakhs. The Government of India in consultation with the Auditor-General has now advised us that these items of expenditure may in future go to the Capital Account, since the works do leave behind material assets of a lasting nature. Grants to local bodies and other public institutions for works of this nature may also be debited to the Capital Account initially, but may be

written back to the Revenue Account in instalments over a period of say, 15 years. Even though this is a departure from the conservative finance we have been following all these years, we propose to make this change from the Budget year. We are now well-set on a more rapid pace of development on all sides and therefore we need not stifle our efforts by attempting to shoulder burdens, which the coming generation can bear with greater ease. Under the revised procedure, the relief to the Revenue Account in the Budget is about Rs. 350 lakhs, which means that the revenue deficit for the year would have been about Rs. 6½ crores but for this change.

Concessions to Public Servants.

The Budget provides for a few concessions to public servants, besides the ones I had already indicated while dealing with Education. The salaries of village officers in Estates taken over by the Government are being upgraded to the level of those in ryotwari areas. This measure is expected to cost about Rs. 4 lakhs per annum and will benefit a large class of loyal public servants. The scales of pay for Veterinary Assistant Surgeons and Livestock Inspectors are being revised and a compensatory allowance is being given to those Assistant Surgeons working in key villages. Deputy Jailors and Jailors in charge of special sub-jails will get a little enhancement in their pay. Upper Division Clerks in the Secretariat will get higher increments in the earlier stages of their career. Certain disabilities of typists and stenographers in the fixation of their pay on promotion and of Personal Assistants and Clerks of Ministers in their leave salary, are being removed. Attenders in Government offices and Civil Courts will get a slight enhancement in their annual increments. Copyists and Examiners in Criminal Courts will be put on regular scales of pay instead of being paid on the basis of piecework. Head Accountants and Superintendents in Settlement Offices will also be put on incremental scales of pay instead of the present fixed pay. The scales of pay of compounders and Lay Secretaries of Hospitals will be revised in their favour. District Officers will be given a higher rate of mileage on journeys in excess of 40 miles, when done in their own motor vehicles. These concessions taken individually are indeed of small financial consequence, but the cumulative effect of all of them is appreciable.

New Taxation.

The deficit of Rs. 311 lakhs is indeed substantial and cannot all be left uncovered. The necessity for balancing the Budget is greater now, since we have already used up the concealed margin in the Revenue Account by the transfer to Capital of about Rs. 3½ crores of outlay hitherto met from current revenues. Our commitments on development schemes are bound to accelerate; and we cannot hope to implement an ambitious Plan, without accepting the necessary sacrifices. It is therefore proposed to introduce the following new measures of taxation:—

(c) The tax on diesel oil will be enhanced from 1½ annas to 4 annas per gallon to bring in an additional revenue of Rs. 30 lakhs per annum.

(b) An additional sales-tax of one anna in the rupee will be levied on the sale of sugar at any one suitable point, to yield about Rs. 40 lakhs per annum.

(c) The rate of supply of electric energy to licensees and bulk consumers on the High Tension tariff in the Hydro-electric areas will be stepped up by 30 per cent. The present rates based on pre-war conditions are in many cases found to be below the bare cost of generation. The enhancement will not apply to consumers supplied by the Madras Electricity System. The Railway administration will be exempted from this enhancement. New industrial concerns will also be exempted from the extra levy for the first three years after the commencement of production. The proposed measure may bring in about Rs. 45 lakhs per annum.

(d) Ryotwari assessment will be levied on Inam lands in lieu of quit-rent. This measure may bring in about Rs. 30 lakhs per annum.

The one tax relief proposed is the exemption from sales-tax on the sale of palm-gur at all points.

With the additional taxation now proposed, the Revenue gap will be reduced to Rs. 166 lakhs. The deficit is still large but should not cause alarm, because it is of the order which can be wiped off by the upward trend in revenues in a year of fair seasonal conditions. Besides, it is not unlikely that the readjustments in taxation proposed in the Central Budget may give us something on items of Central Revenue shared with State. It is therefore proposed to leave the Revenue deficit uncovered.

Capital Expenditure.

The Capital Expenditure for the year is estimated at Rs. 27.61 lakhs made up of Rs. 13.07 lakhs on Electricity, Rs. 5.93 lakhs on Irrigation, Rs. 4.15 lakhs on Roads and buildings, Rs. 1.91 lakhs on Industrial Development, Rs. 1.33 lakhs on Public Health and Rs. 1.22 lakhs on other items. Of the expenditure on buildings, a sum of Rs. 85 lakhs is for the construction of quarters for police subordinates in the City and the mufassal. We have drawn up a housing programme for policemen costing about Rs. 5 crores to be implemented during the Plan period, so as to ensure the personnel of this Security Service fair living conditions in all the districts. Another significant item in the Capital Head is the provision of Rs. 67 lakhs for the purchase of about 150 new motor vehicles for augmenting the City Transport.

Loans and Advances, 1956-57.

Under 'Loans and Advances' the anticipated outlay is Rs. 861 lakhs. This sum includes Rs. 110 lakhs to local bodies for urban water-supply and drainage schemes; Rs. 80 lakhs for short-term loans to the Madras Industrial Investment Corporation to augment their resources; Rs. 132 lakhs for loans in the National Extension Service and Community Development Project areas; and Rs. 65 lakhs to Weavers' Co-operative Societies in pursuance of the schemes financed from the Handloom Cess Fund allocations. Recoveries during the year are expected to be Rs. 410 lakhs, leaving a net outlay of Rs. 451 lakhs.

Our requirement on 'Ways and Means' during the next year will be about Rs. 38 crores made up of—

	RS.
Capital Expenditure	27.61
Net disbursements under Loans and Advances	4.51
Repayment of debts to the Government of India and the public	3.68
Revenue Deficit	1.66
Balance to be kept in the Reserve Bank of India and Treasuries	50
Total	37.96

As against these requirements, we hope to have an opening cash balance of Rs. 186 lakhs and a net credit within the year of Rs. 180 lakhs under Deposit heads and State Trading Schemes, making a total of Rs. 366 lakhs. The Budget assumes that we will get loans from the Centre and the open market to cover the balance amounting to about Rs. 34½ crores.

Outlay on the New Plan.

The proposed outlay in the Budget on Schemes included in the New Plan is Rs. 37.30 crores. To this must be added the cost of the new schemes financed from the Handloom Cess Fund which may amount to about Rs. 1 crore, making a total planned outlay of about Rs. 38 crores. This is somewhat in excess of the phasing suggested by the Planning Commission, but it cannot be helped in view of the large spill-over from the First Plan on Capital works in progress. The Planning Commission has indicated that the size of the State Plan should be restricted to about Rs. 221 crores. As against our revised proposal for about Rs. 221 crores, the major cuts suggested by the Commission are on Education, Housing and Urban Water-supply and on the total so pruned down, a further lump-sum cut of 5 per cent has also been imposed. The final picture is still obscure, because we find from the recommendations of the Karve Committee that the allotment to this State

on Village and Small-Scale Industries will be of the order of Rs. 30 crores, as against the provision of Rs. 16 crores now embodied in the Plan. But we need not be unduly perturbed over these tentative figures. As I stated earlier, what is of immediate consequence is our performance in the first year of the Plan. The size of our Plan will depend on our ability to raise the internal resources and the competence of our administrative machinery to implement the schemes. The Plan will be reviewed each year and the programme for the next year will be shaped according to the accomplishments in each year. The Budget does contain adequate provision for making a fair start on the Plan and let us hope that we can improve on our performance in succeeding years.

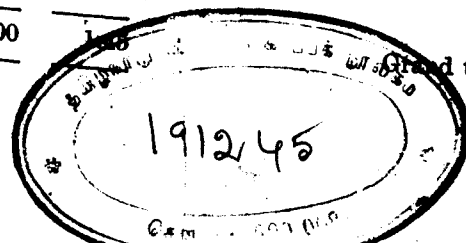
Major Industries.

But there is one other aspect which should cause us some real concern. The bulk of the proposed outlay in the National Plan is for the development of basic industries, mainly iron and steel, and improvements to the transport system to match that development. It does not appear that any sizable portion of that outlay, amounting to about Rs. 2,000 crores in the public sector, will be in the South. It is indeed true that we have no coal, but that does not alter the fact that the industrial development envisaged in the Plan for the Southern States is inappreciable. There is the Lignite Project for which a sum of Rs. 50 crores has been earmarked, but this will not improve the ratio very considerably and besides, the project is still at the experimental stage. It is therefore very necessary that on other major industries, in the location of which there is a wider margin of choice, some preference should be given to this area, where perhaps the pressure of population per acre of cultivated land is the greatest. We can provide, all the necessary facilities for the proposed heavy electrical plant. We have cheap power in our grid for the manufacture of aluminium from the bauxite deposits of Salem. We are at no great disadvantage on the location of a plant for the fabrication of heavy machinery from the new steel output. Representations have been made on all these matters, and I am confident that the House will join with me in endorsing this stand so that these points, so vital to our economic growth, are adequately considered by the Planning Commission and the Government of India.

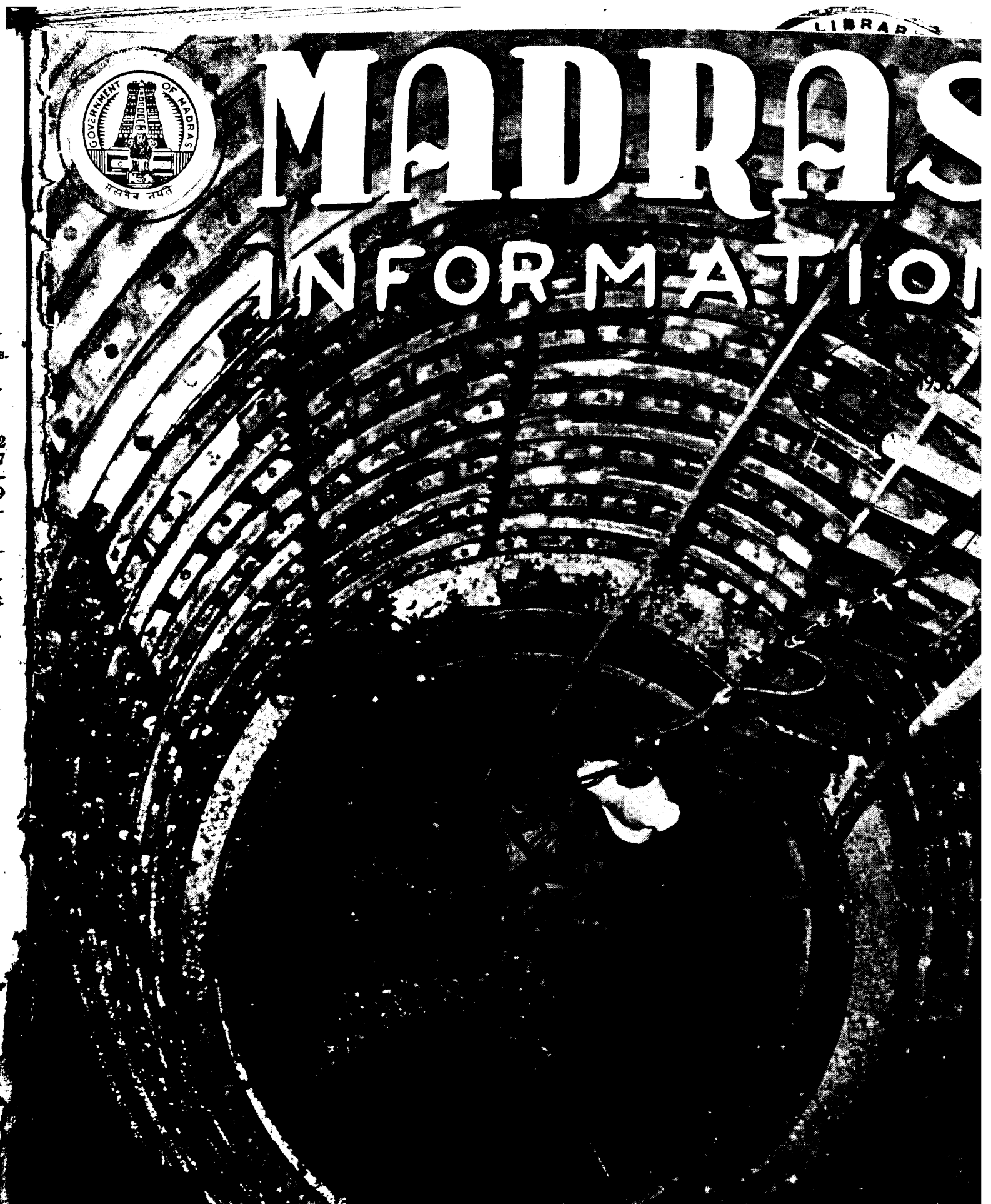
APPENDIX I.

STATEMENT SHOWING THE DETAILS OF EXPENDITURE IN RESPECT OF THE MADRAS STATE
DRAFT SECOND FIVE-YEAR PLAN.

Main Heads of Development.			Main Heads of Development		
(1)	Provision made in the Draft Second Five-Year Plan.	Budget Estimate, 1956-57.	(1)	Provision made in the Draft Second Five-Year Plan.	Budget Estimate, 1956-57.
RS. IN LAKHS.	(2)	(3)	RS. IN LAKHS.	(2)	(3)
A. Schemes included in the Draft Second Five-Year Plan.			A. Schemes included in the Draft Second Five-Year Plan.		
I. Agriculture and Community Development—			VI. Health—		
Agricultural Production ..	3,15	53	Medical ..	9,25	92
Minor Irrigation Projects ..	4,25	1,35	Public Health ..	7,61	97
Land Development ..	2,22	17			
Animal Husbandry ..	2,49	33	Total VI ..	16,86	1,89
Dairying and Milk Supply ..	1,71	13			
Forests ..	2,28	45	VII. Housing ..	4,60	8
Fisheries ..	1,31	24			
Co-operation ..	3,46	46	VIII. Other Social Services—		
Miscellaneous (Statistics) ..	20	4	Welfare of Backward Classes ..	3,36	97
Community Projects ..	18,00	2,78	Welfare of Scheduled Castes and Scheduled Tribes ..	3,64	28
Total I ..	39,07	6,48	Total VIII ..	7,00	1,25
II. Irrigation and Power—			IX. Miscellaneous ..		
Irrigation ..	14,64	4,63		1,15	12
Power Projects ..	61,10	13,09	Total A ..	1,84,66	34,89
Total II ..	75,74	17,72			
III. Industry—			B. Schemes which are considered indispensable and for which additional allotment have been asked for.		
Medium Industries ..	1,00	30	(i) Education ..	14,35	..
Village and Small Scale Industries ..	9,00	2,42	(ii) Technical Education ..	65	..
Khadi Development ..	1,44	6	(iii) Health ..	7,91	60
Handloom Co-operative Department ..	4,00	83	(iv) Housing—		
Handloom Industries Department ..	1,00	6	General ..	5,64	7
Total III ..	16,44	3,67	Police ..	4,50	90
IV. Transport and Communication—			(v) Labour Welfare ..	12	..
Roads ..	8,50	1,46	(vi) Women's Welfare ..	40	..
Broadcasting ..	30	..	(vii) Certified Schools, Vigilance Service and Destitute Homes ..	34	..
Total IV ..	8,80	1,46	(viii) Local Development Works ..	2,00	80
V. Education—			(ix) Miscellaneous (Village Panchayats, Employees State Insurance and Employment Exchanges) ..	44	4
Education ..	13,65	1,29			
Technical Education ..	1,35	16	Total B ..	36,35	2,4
Total V ..	15,00	1,45	Grand total A and B ..	2,21,01	37,33



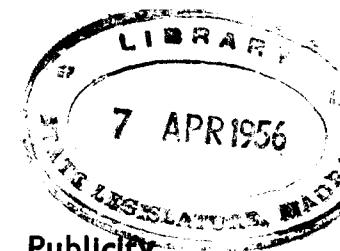
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April 1956

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Cover page: Open Sesame of the modern science enables the present-day Alibabas to get into the dangerous caves of Nature's vast and mysterious investments. See this man taking out a huge lump of a "brown jewel" from the bowels of Mother Earth. Neyveli Lignite Operation in full swing.

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HIGH GLAZED
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Where does India fit in? Prime Minister Nehru on Indian Culture in a Changing World

What is culture? I look it up in the dictionary and I find a variety of definitions. One great writer has called it "the acquainting ourselves with the best that has been known and said in the world". Another definition says that it is "the training, development, or strengthening of the powers, mental or physical, or the condition thus produced; improvement or refinement of mind, morals, or tastes; enlightenment of civilization". Culture, in this sense, is something basic and international. Then there are the national aspects of culture and there can be no doubt that many nations have each developed a certain genius and individuality.

Growth of National Culture.

Where does India fit in? Some people have talked of Hindu culture and Muslim culture and Christian culture. I do not understand these terms, although it is true that the great religious movements have influenced the culture of a race or a nation. The origins of this culture may be traced back on the one hand to the pre-Aryan period, the civilization of Mohenjodaro, etc., and the great Dravidian civilization. On the other hand, it received a powerful impress from the Aryans who came to India from Central Asia. Subsequently, it was influenced by repeated incursions from the North-West and later by the people who came across the seas from the West. Thus, this national culture gradually grew and took shape. It had a remarkable capacity for synthesis and of absorbing new elements. So long as it did so, it was dynamic and living. In later years it lost the dynamic quality and became essentially static which led to weakness in all fields. Throughout India's history we see the two rival and contradictory forces at work—those in favour of a synthesis and absorption and those fissiparous tendencies which separate. To-day we face the same problem in a

different context. There are powerful forces working for unity, not only political but cultural also. There are also forces that disrupt and lay stress on separateness.

The question, therefore, for us to-day is not an academic one but a vital issue, on the understanding and solution of which depends our future. Normally, it is the business of the intellectuals to give a lead in dealing with such problems, but our intellectuals have failed us. Many of them do not even seem to realise the nature of this problem, others suffer from frustration and a crisis of the spirit, not knowing where to turn.

Continuity and Change.

Marxism and its progeny attracted many of the intellectuals and there is

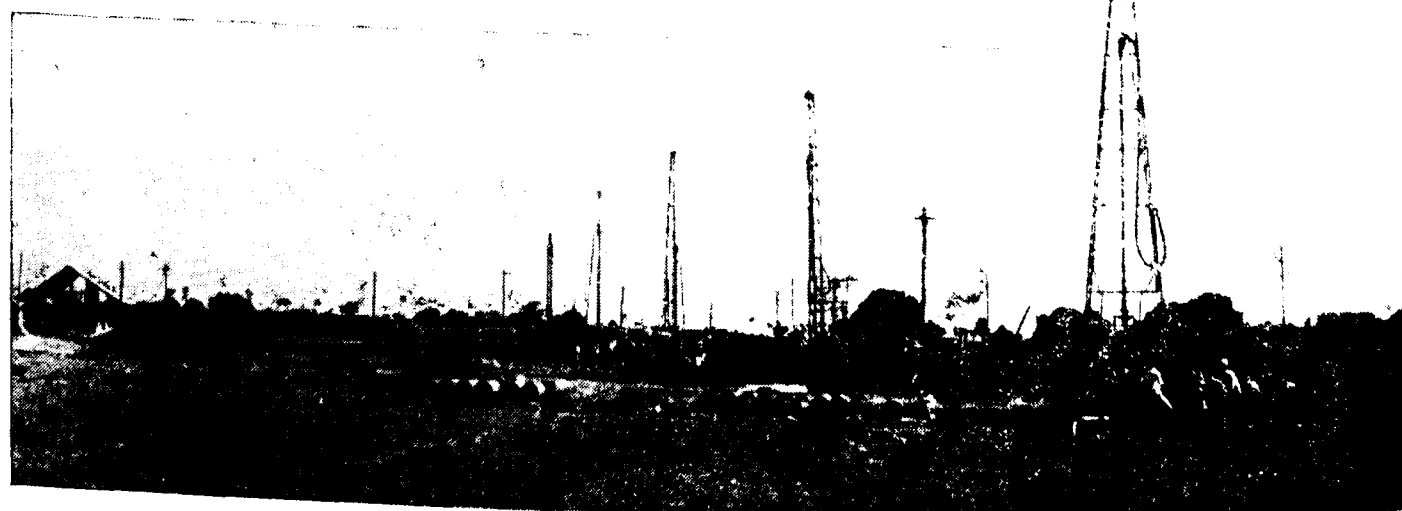
no doubt that it gave a certain analysis of historical developments which helped us to think and to understand. But even that proved too narrow a creed and, whatever its virtue as an economic approach, it failed to resolve our basic doubts. Life is something more than economic growth, though it is well to realise that economic growth is a basic foundation of life and progress. History shows us two principles at work, the principle of continuity and the principle of change. They appear to be opposed to each other and yet, each has something of the other. We notice what we consider sudden changes in the shape of violent revolutions or an earthquake. Yet, every geologist knows that the major changes in the earth's surface are gradual, and

(Continued on page 16)



Members of the Uganda Goodwill Delegation photographed with the Prime Minister, Shri Jawaharlal Nehru, when they called on him in New Delhi.

Neyveli Operations—A Preface



The drills at work. Drilling a whole with a diameter of 26 to 27 inches to a depth of 400 feet is no easy matter.

Large-scale pumping tests were inaugurated by Sri M. Baktavatsalam, Minister for Industries on 29th February 1956 in the Neyveli lignite area. This is the last phase of the preliminary investigations before plans for actual mining and utilisation are finalised.

The Neyveli Project is probably the biggest project for the South proposed for inclusion in the Second Five-Year Plan. Estimated to cost Rs. 70 crores, the project is expected to enable the nation to mine and utilise about three and a quarter million tons of lignite per annum.

Large Deposits.

Experts have calculated that there are 2,000 million tons of lignite over an area of 100 square miles at Neyveli. When fully developed, lignite mining here can help the national economy in many ways.

Wherever lignite is mined elsewhere in the world, it is used at site to raise steam for thermal power plant. A thermal generating plant with a capacity of 200,000 KW burning lignite as fuel, is included in the project. The expectation is that the first

50,000 KW unit of the plant will commence operation from January 1960.

By-products.

The gasses thrown off by lignite in the process of carbonisation may



After drilling, the holes had to be protected by steel-casing and prepared for pumping.

be used to produce fertiliser (ammonium sulphate) with the help of gypsum or sulphur. There are large gypsum deposits in the Tiruchirappalli district and gypsum could also be imported through the Cuddalore port. A plant for producing about 200,000 tons of fertilisers has also been included in this many-sided project. Synthetic fuels such as diesel oil, petrol, etc., can also be produced from lignite.

Uphill Task.

Though the project, thus has great possibilities, geological history has created tremendous difficulties for us. In the case of the Neyveli lignite, the deposition of the soil and the movement of the earth's crust seem to have been over vegetable matter growing over water logged areas. Nowhere else in the world does lignite occur over strata containing water under high pressure. This has created unique problems in the exploitation of Neyveli lignite.

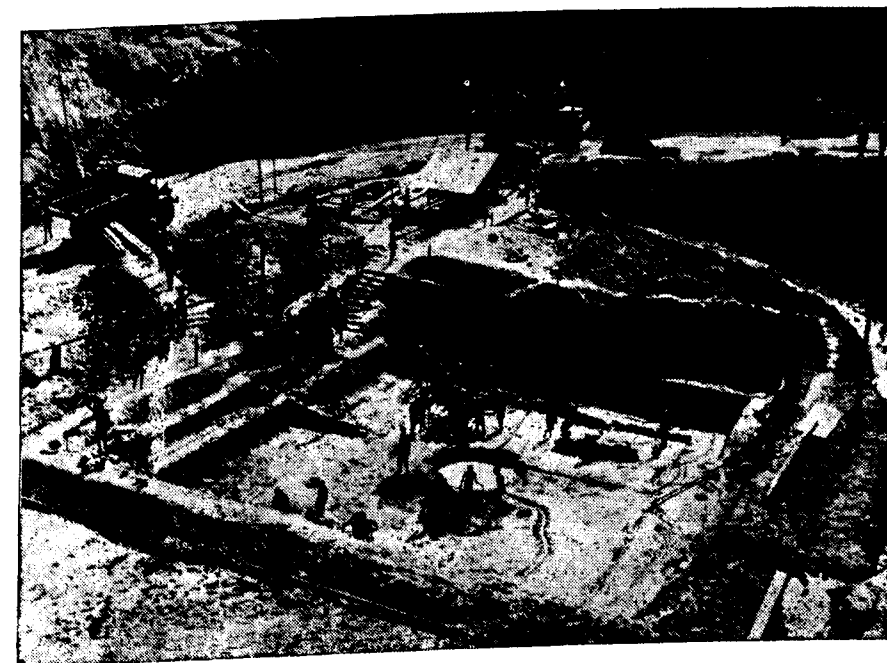
Final Check.

Complex and difficult though the initial work has been the preliminary, investigations have been completed. But before launching the project it

has been felt advisable to have a final check. On the basis of the reduction in the water level effected by pumping from a few holes, using small-capacity pumps, experts have calculated that, to mine and remove lignite safely from an area corresponding to a mining strip in regular open cut mining, by effecting a local depression of the water pressure, it would be necessary to pump out about 20,000 gallons of water per minute from the water bearing strata below the lignite, over a period of about 100 days.

This final tests was initiated on the morning of February 29th. The pictures on these pages explain the difficult processes of the preliminary work. Drilling a hole with a diameter of 26 to 27 inches to a depth of 400 feet is no easy matter. The drills themselves had to be imported. After drilling, the holes had to be protected by steel casing and prepared for pumping. Men had to be trained on the spot.

Sixteen of the pumps of a capacity of 1,000 gallons per minute each are now ready—four more will be added shortly—and, on February 29th went



Excavation work in progress for bulk sample of lignite.

into action for the final check before this project with many beneficial possibilities for the economy of the nation, and of the Madras State in particular, enters its last phase—the

utilisation of a buried treasure chest, which is a legacy from a time when the earth was very much younger to men who are willing to work hard for their rewards.

Do You Know . . . ?

The percentage of children of school-going age, who actually attend schools, has now gone up to about 50 per cent. Between 1947 and 1951 the percentage went up from 30 to 40.

The consumption of ammonium sulphate in India increased from 2.7 lakh tons in 1950 to about 6 lakh tons in 1955, which is very near the First Plan target.

For the first time, India exported about 78,800 tons of motar spirit and 123,000 tons of furnace oil during the second half of 1955. Main importers were Pakistan, Burma, the Philippines, Australia and Ceylon.

The value of capital assets of the Post and Telegraphs Department rose to Rs. 50 crores at the beginning of the first Five-Year Plan from Rs. 33 crores after partition. It is expected to

increase to Rs. 92 crores by the end of the Plan period.

The Rs. 16 crores rail-cum-road Ganga bridge in Bihar, the foundation stone of which has been laid would be the largest of its kind in the world.

Soil conservation work is to be undertaken in 4 million acres of land under the Second Five-Year Plan. Nearly 7 million acres are expected to be surveyed in this connection. About 2.4 million skilled and unskilled workers and about 5,000 administrative, clerical and technical personnel will be required for the work.

The Government of India have set up a 10-member Committee to review the existing capacity for the manufacture of machine tools and assess the country's requirements.

Production of handloom cloth in India rose to 1,450 million yards in 1955 from 1,320 million yards in 1954.

The Government of India have earmarked Rs. 40 crores for the develop-

ment of major ports and Rs. 5 crores for minor ports under the Second Five-Year Plan.

The Indian Council of Agricultural Research sponsored 138 research schemes in agriculture, animal husbandry, veterinary science and other related spheres in 1955-56 at a total cost of Rs. 64.61 lakhs.

Production of finished steel is proposed to be increased from 1.3 million tons to 4.3 million tons under the Second Five-Year Plan.

The number of handlooms run on co-operative lines rose from 6.82 lakhs in September 1953 to 9.60 lakhs in September 1955.

Coal production in India is proposed to be increased from 37 million tons to 60 million tons during the Second Five-Year Plan period.

The total area under cashew crops in India is about 2.2 lakh acres.

The Employees' Provident Fund

In spite of the Employees' Provident Fund Act, 1952 and the Scheme and the rules framed thereunder conferring real benefits on the workers and in spite of this beneficial social legislation operating in the State since 1952, very little is known of its working to the general public, and perhaps even to the workers themselves. Quite often the Employees' Provident Fund is confused with the Employees' State Insurance Scheme, another beneficial social legislation which has been working for some time in Coimbatore and which has recently been extended to Madras City and its suburbs. While the Employees' State Insurance Scheme is concerned with conferring medical, disablement sickness, maternity and dependants benefits on the workers, the Employee's Provident Fund deals with retrenchment, retirement, old age and death benefits to the workers analogous to that of pensions and gratuities obtaining in the Services. While the Employees' State Insurance Scheme applies to factories employing 20 or more persons the Employees' Provident Fund applies to factories employing 50 or more persons. While the Employees' State Insurance Scheme extends to all factories using power the Employees' Provident Fund Scheme, for the present is limited to six specified industries only. Another limitation for purposes of the enforcement of the Employees' Provident Fund Act, 1952 and its Scheme is that a factory should not be an infant factory, i.e. it must have established itself at least for three years.

In the course of his speech delivered at the Inaugural meeting of the Regional Committee, Employees' Provident Fund, Madras State, Sri M. Bhaktavatsalam, Minister for Labour, said :

"With the achieving of our independence and the framing of our constitution we have entered upon a new era of advancement. The idea

of the Brotherhood of Men and the Parliament of the World perhaps has no better illustration than in the way in which we are solving our problems to-day. Our Republic with its commitment towards a Socialistic Pattern of Society emphasizes not only political equality but also economic equality for all citizens. We have left outworn ideas such as free trade versus an insular economy behind us, and are progressing towards the ideal of each individual and each unit consciously striving for the betterment and the benefit of society as a whole.

Step by step with the mass of legislation which is the lot of a welfare state like our social legislation also has grown and rightly so. Many important measures and activities have been taken for the improvement of the workers, standards of living and for their economic and social well-being.

The Story of Employees' Provident Fund.

"Of these, the Employees' Provident Fund Act and the Scheme are a vital step in advance as they provide old age benefit and benefit in the nature of a pension for the workers. I am sure that you will all appreciate that these beneficial measures help to create in the worker an interest in the employer and the feeling that they have a stake in the industry as much as any other person. Similarly the outlook of the employers towards labour has undergone and is undergoing a change whereby the desire for exploiting labour is receding and giving place to working in partnership with labour for the stabilization of industry and for the general advancement of the country. Thus the goal of all such types of legislation is to aim at a high standard of efficiency by co-operative effort which can only be expected from workers who are physically fit, who are properly housed and fed and whose employment being assured, they are free from mental worry. So much for the background for the beneficial social

legislation of which the Employees' Provident Fund Act and the Scheme form an integral part.

The first Provident Fund Act was passed in 1925 for regulating the provident funds of some private concerns and was limited in its scope. In 1929 the Royal Commission on Labour stressed the need for formulating schemes for instituting a provident fund for industrial workers. In the same year the Indian Income-Tax (Provident Funds Relief) Act, 1929, was enacted. This subject of provident funds came up for discussion at the Third Conference of Labour Ministers held in 1942. The Conference generally accepted the institution of provident fund but its recommendation was of a restricted nature in that it envisaged such funds on a voluntary basis. The Conference also recommended the framing and the circulation by the Central Government of model rules to the employers for adoption. These model rules were framed and circulated to employers of industrial concerns in 1945. Only some employers doing brisk business started provident funds on a voluntary basis but the general response was poor. At the Asian Regional Conference of the International Labour Organisation, the position was reviewed and it was considered that on account of the conditions prevailing in the east, the introduction of a scheme of old age pension as adopted in the industrially advanced countries of the West was not feasible. The Conference took into consideration various difficulties in the institution of a Gratuity Scheme and it finally decided that the most appropriate course would be the institution of a system of a compulsory provident fund in which both the employees and the employers would contribute. This matter was again discussed at the Tenth Session of the Indian Labour Conference held in 1948 and it was generally agreed that the introduction of a provident fund scheme statutorily for industrial worker should be taken up.



Sri M. Bhaktavatsalam, Minister for Labour, addressing the meeting of the Madras State Labour Advisory Board held at the Secretariat.

To start with, it was considered desirable to test such a scheme in a restricted field. Accordingly, in 1948, the Coal Mines Provident Fund Scheme was introduced. The Scheme proved successful. In 1949 the Labour Minister, Shri Jagjivan Ram, assured the House that an official Bill on the subject instituting a provident fund scheme generally in respect of industrial workers would be launched. In 1950 the subject was exhaustively discussed at the meeting of the Standing Labour Committee. In January 1951 the Conference of Labour Ministers decided that legislation should be undertaken for instituting provident funds in industrial undertakings. On 15th November of the same year the Employees' Provident Funds Ordinance was promulgated. This was replaced in March 1952 by the Employees' Provident Fund Act, 1952. The Employees' Provident Fund Scheme, 1952, framed under section 5 of the Act was brought into force by stages and finally in its entirety, by the first November 1952. In the working of the Scheme certain defects in the Act

were noticed. As some amendments necessitated urgent implementation an amending Ordinance was promulgated on 14th October 1953. The Ordinance was replaced on 12th December 1953 by the Employees' Provident Fund (Amendment, Act) 1953. As certain further loop-holes in the Act and the Scheme have been noticed even after the amending Act, further amendments are now under the consideration of Government.

At present the Act applies to six major industries, i.e., Cement, Cigarettes, Electrical, Mechanical or General rettes, Engineering Products, Iron and Steel, Paper and Textile. The Act does not apply to factories employing less than 50 workers and to factories which are of less than three years standing. Factories belonging to Government or local bodies are also not covered by the Act. Exemptions from the Scheme framed under the Act are granted on application in cases where the employees are in enjoyment of benefits superior to or similar to those provided under the Scheme.

The advantages are many

The Fund inculcates the spirit of thrift in the worker-members. Both the employees and the employer contribute a sum equivalent to 6½ per cent of pay and dearness allowance of the employee-member. A provision against old age is assured. The tendency of migration from one employer to another is minimised and a sense of security is instilled. The funds are generally deposited in Government securities and are safe. In the case of death of the bread-winner the Provident Fund accumulations come to the rescue of his bereaved and poor family. The accumulations in the Provident fund are statutorily unattachable by any debtor under any decree or order of any Court. As regards eligibility, at present all employees who have put in 240 days of actual working in a continuous period of one year and drawing a basic pay of Rs. 300 and below are covered.

The Scope of the Scheme

In cases of death, migration for permanent settlement, retrenchment,

retirement on attaining the age of 55 years, permanent medical invalidation and on suffering from tuberculosis or leprosy full accumulations in the fund (both employers and employees contribution) are paid immediately except in the case of retrenchment. In the case of retrenchment, full payment is made but after a waiting period provided the employee has not been able to secure employment in a covered factory in the meanwhile. In the case of 'mass retrenchment' and in other deserving cases, however, immediate payments are made on special sanction of Government. In all other cases, full payment of employers' contributions are made after a continuous membership of 20 years. In cases of resignation, etc., before the expiry of the 20 years, period, graded deductions of the employers share of contributions are made. The Scheme has a provision against granting of loans or withdrawing the dues hastily. Loans are not admissible except for Insurance purposes which is an ideal means of provision for old age. There is also provision in the Scheme for deduction of employers contribution during the two previous accounting years and the current year for gross, serious and wilful misconduct while in service and consequent dismissal. The amount credited to the forfeiture accounts is at present utilised for paying money order commission on remittances of provident fund amounts made to the ex-members or their nominees. The question of utilisation of the amount for the general welfare of the Labour class is now receiving the attention of the Government.

To the employer, the advantages derived from the institution of the provident funds are significant. The migratory character of the Labour which is one of the most important causes of poor turnover in factories and a constant headache to the employer is minimised and larger output is ensured. The continued availability of a trained worker adds to efficiency and quality. An incentive is placed on good behaviour on the part of the worker and thus industrial unrest, strikes, etc., are minimised.

Experience has shown that some small employers have not still understood the underlying implications and the obligations of this legislation. They try to evade the Act. The Act provides for firm and effective measures

to bring round such employers. Such employers are fortunately exceedingly few. The Act and the Scheme have been implemented so successfully that there has been a persistent demand from all quarters for the extension of this important piece of legislation to all industries, plantations and commercial undertakings. The Government are seized of this matter and the Act is bound to cover by stages all industries and commercial undertakings.

It augurs well for the Employees' Provident Fund Organization that during this infant period of three years it has so successfully implemented the Act that the Government are now contemplating the extension of the Act to cover other industries. Already, last month, the Act has been extended to the journalistic institutions. The legislation is for the welfare of the working class and the success of it depends upon the co-operation of the employer and the employees. The burden of implementation of this legislation has been rightly entrusted to the representatives of the Government, the employers and the employees. The Act and the Scheme are now administered by a Central Board of Trustees with the assistance of Regional Committees of the respective States whose functions are of an advisory nature. I may mention that the Central Government is considering the transfer of the administration of the Act and the Scheme to the States and

it appears as though this transfer will be completed in the next few months. The Regional Committee will then give place to a State Board also consisting of representatives of the Government, the employers and the employees.

Some Facts and Figures about E.P.F.

The Act and the Scheme now extends to 249 factories with a total strength of 129,999 workers of which 45 with a strength of 37,090 employees have been exempted and allowed to administer their own provident funds. The total contributions remitted to Employees' Provident Fund by the unexempted factories amount to Rs. 6,79,856-3-6 per mensem while the total administrative charges remitted by the unexempted factories and the inspection charges remitted by the exempted factories amount to Rupees 20,625-5-3 and Rs. 3,042-3-0 per mensem. These figures are based on the position in December 1955. Ledger cards for 92,909 members are being centrally maintained at the Regional Office in Madras, their accounts being posted up to date with the use of the Remington Accounting machines.

Though, at present, only factories engaged in the manufacture of the following articles, i.e., Cement, Cigarettes, Electrical, Mechanical or general engineering products, iron and steel, paper and textiles, come within the purview of the Act and the Scheme, the following 17 industries have been



The Regional Committee of the Employees' Provident Fund Scheme at a meeting held recently at the Secretariat.

recently surveyed and full data supplied to the Union Government :—

1. Heavy and fine chemicals, including artificial manure.
2. Matches.
3. Edible oils and fats.
4. Printing presses including printing by letter press, lithography, photography, photogravure or other similar work or book binding which is carried on by way of trade or for purposes of gain or incidentally to another business so carried on.
5. Tea factories.
6. Rice flour and dhall mills.
7. Sugar factories and refineries.
8. Glass and glass products.
9. Leather products.
10. Tanneries and leather finishing.
11. Cotton ginning and baling.
12. Rubber and rubber products.
13. Electricity generating, transforming and distributing stations.
14. Coir and rope works.
15. Automobile repairing and servicing workshops.
16. Pottery, China and Earthenware.
17. Cashewnuts.

In addition to this commercial establishments, plantations, mines of coal, mica, manganese, iron ore and limestone have also been surveyed. As a result of the passing of the Working As a result of the passing of the Working Journalists (Conditions of Service) and Miscellaneous Provisions Act, 1955, the newspaper establishments employing 20 or more persons are being surveyed. In the Madras region the Motor Road Transport Services have been surveyed with special reference to the running staff employed. It is an open secret that some atleast of the additional industries surveyed are bound to be brought within the Employees' Provident Fund Act, 1952 and the Scheme shortly by legislation. The Union Government have also under active consideration proposals for the amendment of the Scheme liberalising some of its provisions so as to include the grant of advances to workers for purchasing a house, a house-site for constructing a house, etc. For the present withdrawals from accumulations of the workers are being allowed only for the purpose of financing life insurance policies.

In the early stages of the implementation of the Act and the Scheme certain difficulties were encountered mainly due to opposition or lukewarm support from certain quarters probably

due to a lack of understanding of the scope of the legislation and the benefits envisaged under it. But the steady enforcement of the Scheme, closer contact between the enforcing staff, the managements and workers, and above all the enjoyment of the real benefits accruing from the Act and the Scheme by actual participation, have allayed the fears and misgivings of all parties. The difficulties now experienced are not only comparatively less but appear more due to real financial embarrassment of a few of the managements rather than a spirit of non-co-operation. As stated by the Minister for Labour, the general feeling amongst the workers, the public and the officials and the persistent demand

now for including additional industries from all quarters and for the expansion of the Act and the Scheme to cover additional industries, plantations, commercial undertakings and newspaper establishments reflect in some measure the successful working of the Act and the Scheme by the Central office at Delhi and the Regional offices in the various States.

Considered as a whole there can be no two opinions on the fact that the Act and the Scheme have worked satisfactorily and the stage is now set for covering more industries. The ideal however will be reached when every worker will be brought under this beneficial social legislation.

The Electrical Wiremen, Supervisors and Contractors Licensing Board

Rule 48 (1) of the Indian Electricity Rules, 1937 (extracted below) has come into force in Madras State from 1st October 1955 :—

"48 (1) : No electrical installation work, including additions, alterations, repairs and adjustments to existing installations, except such replacements of lamps, fans, fuses, switches and other component parts of the installation as in no way alters its capacity or character, shall be carried out upon the premises or on behalf of any consumer or owner, for the purposes of the supply of energy to such consumer or owner, except by an electrical contractor licensed by the Provincial Government in this behalf and under the direct supervision of a person holding a certificate of competency issued by the Provincial Government."

The notification in the *Fort St. George Gazette*, dated 30th November 1955 gives detailed information on this.

Works handled by Wiremen and Supervisors without certificates and contractors without licences will not be given electrical connection after 30th September 1956.

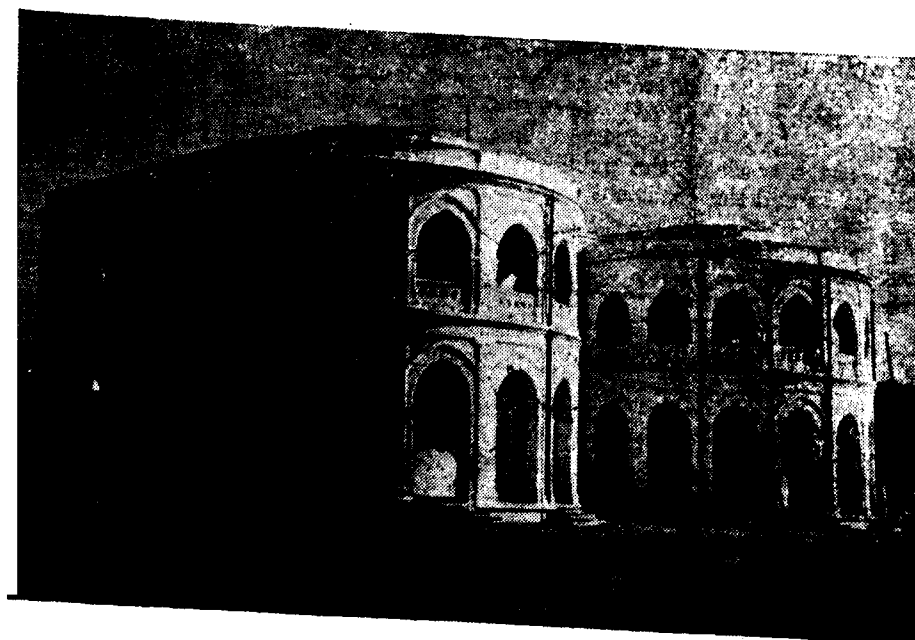
All concerned are therefore advised to apply to the Board on prescribed forms together with the required fees paid in the form of Crossed Postal Order or Demand Draft duly crossed and obtained from the State Bank of Madras or any of its branches drawn in favour of the President of the Board for issuing certificate to Electrical Wiremen and Supervisors and licences to contractors. Remittance of the fees by Money Order or cash or by any method other than by Postal Order or Draft from State Bank or branches will not be accepted.

All communications to the Board should be addressed to the Secretary, Electrical Wiremen, Supervisors and Contractors Licensing Board, office of the Chief Electrical Inspector to Government, 157, Mount Road, Madras-2, with a self-addressed sufficiently stamped envelope. No notice will be taken of the references received without the self-addressed stamped envelope.

PRESIDENT.

A Century of Educating the Educators

The Achievement of Teachers' College



Teachers' College, Saidapet.

The Teachers' College is the oldest and also the largest Teacher Training Centre in our State. Its origin can be traced back to 1st March 1956 when the Government Normal School was opened in Vepery. It is the Centenary of this school, which in the course of time grew into Teachers' College, that was celebrated recently.

In the early days, the Normal School gave free instruction to public in general as well as in professional courses conducted its own examinations and awarded its own certificates. All the students were trained for two years and were required to serve as teachers at least for five years after the training. The students were given stipends varying from Rs. 15 to Rs. 30 according to the merits of the candidates assessed at the written examination for admission.

When the Madras University was established the Normal School had to be reorganised. The affiliation of the

School with the University marks an important stage in its history. The institution came to be called as the Teachers' College and the College was transferred to Saidapet. The College presented students for the first time for the L.T. Degree Examination in 1888. From 1892 all the graduate pupils of the college were required to appear for the L.T. Degree Examination.

The next stage in the development of the College was 1890 when a revised Code specifying the rules regarding admission to courses and the control and conduct of the students under training came into force. According to the revised Code the period of training was extended from 12 months to 18 months divided into three sessions, in special cases to two years in order to allow time for the study of two special subjects apart from the professional subjects which included Drawing, Drill or Gymnastics. The College hostel was constructed in 1897.

A special block of buildings was erected in 1904 to accommodate the Kindergarten Section and a Lady Superintendent trained in England was placed in charge of the section.

In 1911, the College was reorganised with reference to the new S.S.L.C. Scheme and the new syllabus prescribed in 1910 for the L.T. Degree Examination of the Madras University. Provision was made for giving training in the teaching of special subjects like Physical Science, Natural Science, History and Geography and the L.T. Students were required to specialise in one of these subjects besides going through a course in professional subjects and a course in the Methods of Teaching English. As the activities of the College increased it was removed to the building formerly occupied by the Agricultural College and the Agricultural College was shifted out of the campus. The staff of the College was separated from the school which had formed an integral part of the College before. The school department was provided with separate permanent staff of teachers thus obviating the necessity of employing the normal students to do the major portion of the teaching work in the school. A section was opened in 1914 to train Manual Training teachers and when the section developed, an Arts and Crafts class was attached to it in 1923. The Importance of Adult Social Education was felt as early as 1927 and an Adult Night School was started in the College in 1927. When the regulation of the L.T. Degree Examination was revised in 1939, English became one of the two optional subjects for the L.T. Degree Examination instead of being a compulsory subject. In 1944 the University reorganised the L.T. Course and gave its present name, the B.T. Course.

In 1948, the Pandits' Training Section was added to the College and in

(Continued on page 32)

Music in Poland

Its Development during the Post-War years

Institutional Decentralisation.

Music has a very ancient tradition in Poland. The story of the development of Polish music since the end of World War II is a fascinating one. It provides a picture clear enough to show the character of music in People's Poland. This development embraces all spheres of music, — spheres which are inter-dependent and complement one another—the creation of musical works as well as various organisational forms of musical composition. This includes musical training, the rapidly developing amateur groups, music publishing houses, the production of instruments and records, the radio, finally the science of musicology.

The period 1945 to 1955 is marked by the revival and systematic development of music in Poland. In fact, this is the period of the great cultural renaissance which has occurred in the Polish People's Republic.

Chief Characteristic.

The Chief characteristic of this renaissance is the creative musical work which aims at linking itself as closely as possible with the spirit of the present epoch and satisfying the needs of the common listener, who, for the first time in the history of Poland, has the opportunity to frequent concert halls.

The spirit of the new age is reflected in the works of the composers as well. Their main emphasis today is on the creation of a new style with distinctly national features connected with the rich Polish folk art and tied to the national traditions, thus linking musical creativeness with the life of the whole country. The basic change which has taken place in the attitude of Polish composers can be summed up in what can be called the humanistic approach.

Children's Music.

Besides, symphony orchestras have their own choirs which enable them to perform long works, such as oratorios and cantatas. In addition, there are boys' choirs and children's choirs. Polish radio has also taken a leading part in the musical renaissance of Polish People's Republic. It devotes 65 per cent of its programme to music and thus plays a very important role in popularising it. Concerts are very popular in the countryside also.

The objective which music institutions in Poland have set before themselves, is not only the quantitative increase in concerts given in all parts of the country but to bring music within easy reach of all sections of the population.



Music of Poland at the Madras Museum Theatre. An item from the concert given by the members of the Polish Delegation.

Four Objectives of Planning

By SRI J. M. LOBO PRABHU, I.C.S.

Is it possible that the lack of interest in the Five-Year Plans is due to the fact that they have not been set in a definite perspective? A conglomeration of ideas may produce some results, but only clear objectives evoke high endeavour. In our planning, multiple objectives, higher production, employment, consumption and income have been used from time to time. No doubt, all four objectives are related to each other, and lead to nearly the same results, but their appeal and evolution is different. It is necessary to examine each of these objectives, in respect of their appeal, their workability and results. If any one is better than the others, it may still be possible to restate our plans so that they gain effectiveness.

Planning for Production.

Planning for Production is a neutral concept of capitalistic origin. It relates to resources and is more the means than the end. Even projects like irrigation and electricity serve only the interests of groups of individuals. Mills, steel, cement and other factories may represent the country's wealth, but their appeal to the common man is indirect and remote. Even, if in the long run, the increase in the country's wealth will benefit all, in the short run it is looked at with indifference by those not benefited. Production, there has always been. Even if it is planned or managed by the State, it belongs to the order that has produced capitalist and professional classes. Normally, planning for production is easy when finance and technical skill are available to fill up the known requirements of the people. The results also are quickly visible as far as the production itself is concerned. They are not so visible, as far as the use and benefit of that production go.

Planning for Consumption.

Planning for Consumption, or for a better standard of life appears vague

and difficult. Yet, we have done it successfully. The drive to provide food for all, proceeded from ascertaining individual requirements. Similarly in respect of cloth, the target referred to the consumption is desirable. The simple question then is, if other requirements, in respect of housing, hospitalisation, education, recreation, the plan should not proceed on requirements of the entire population, duly ascertained and announced. When the population knows what the plan holds for each, a new expectancy and endeavour will

be sparked, making the plan a responsibility of the people. This psychological aspect is important, as it will spur everyone, those to be benefited, as well as those who are in the lines of production and distribution. Of course the Plan will not be so easy to draw, as it will have to take into account the various lines of production necessary to meet the blue-print of individual requirements. But it will have a definite foundation, which will assure that only what is required will be produced.



Two designs have been selected for the special Buddha Jayanti Commemoration Postage Stamps through an all-India competition organised by the Posts and Telegraphs Department. The designs were selected by a Judging Committee out of 250 entries sent by nearly 100 artists from all over the country. The winners whose designs have been selected will each receive a prize of Rs. 1,000 as a token of acceptance of the design by the Department. The selected designs will be notified to make them adaptable for reproduction on postage stamps.

One of the selected designs sent by Shri R. D. Silva of Bassein, District Thana, three Pipal tree leaves.

Planning for Employment.

Planning for Employment is the other side of planning for consumption. It implies placing all persons in production for achieving the targets of consumption. In a sense, though it is only the executive part, employment is an end in itself, as idle labour is a burden to the State, as it is for any enterprise. At present only 64 per cent of the population is fully employed which means that nearly a third of the population makes no return to the State for the food and services it consumes. The question is, if a plan can be drawn up, village and town-wise to fully employ everyone. A practical approach is a national scheme of unemployment insurance. All included in the Scheme, who cannot find their own employment, should be transferred to State projects of which any number can be drawn up, for making roads, reservoirs, building schools and hospitals, afforesting or otherwise reclaiming wastes. As these add to the wealth of the State, the wages paid will be absorbed in the economy of the country, without causing inflationary effects.

Planning for Income.

Planning for national and individual incomes, is now more or less a statistical process. A practical approach to it may be a system of minimum wages, not only in industry, but also in agriculture. At present the wages of our labour are not one-tenth of those of those in the U.S.A. We cannot match our economy with that of other nations unless the largest part of our population has comparable wages. The process of paying labour adequately does not, as U.S. experience shows, impoverish the employers. It actually adds to the purchasing power on which the totality of enterprise depends. It may appear a bold step to take, but it is one that is equitable, economic, and feasible. No doubt minimum wages are not so actively considered by the Government, as it were three years ago, but this loss of interest, may be due to the fact that the proposal was not sufficiently brought to the attention of the people. If the intention is to increase the average incomes of the country minimum wages must set the standards.

The best among the lot.

Which of the four objectives, production, consumption, employment or

income, can we now adopt for our national planning? Planning for consumption is ideologically the best as it accords with Socialist policy now adopted as the aim of the country. It is also the most complete basis for planning. Perhaps it is too late now to recast on this basis the plans drawn for village, districts, States and the country. In the circumstances, since the Second Five-Year Plan is stated to be flexible, to be reviewed and revised every year, it is possible that at least one of the items of Planning for Consumption, an adequate house for all can be added to the existing Plan. Similarly unemployment insurance from Planning for Employment and minimum wages from Planning for Income can be grafted on the existing plan. These extensions of the plan will add to it an appeal, which will make it at once, a People's Plan, calling for wider interest and response.

Can the finance for these extensions be found? I was the first proponent of deficit finance, which having been since tried tentatively is now the basis of nearly one-fourth of the Second Five-Year Plan. Some 500 crores of created money in the last three years has not caused inflation. On the other hand, it has given the economy a tone, which made it possible to think of the much bigger Second Five-Year Plan with 1,200 crores of created money. In my view, as the Second Plan proceeds, it will be found that that created money will not create even a ripple of inflation. If this is watched and recognised, it should be possible to double and treble the provision of deficit finance in the Second Plan. Our currency per head of population is now about 11 dollars, as against 320 dollars in U.K. and 840 dollars in the United States. If we could raise it to 24 dollars, which is the average per head, in the neighbouring country of Ceylon, even the whole Second Plan can be doubled and trebled.

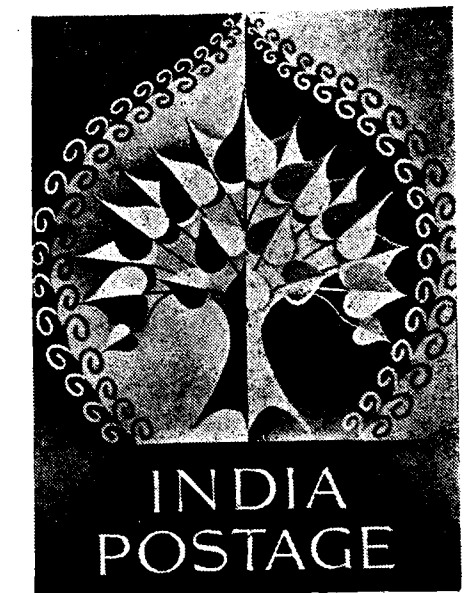
Mechanism to check Inflation.

Are any mechanisms necessary against inflation? In the first place, the productive aspect of public expenditure is a certain check. To the extent the production is concreted and permanent like new houses, roads, schools, irrigation works, the deficit finance employed, only converts the idle labour available into wealth. In the second place taxation is always

available to reduce excess of purchasing power. It is a corrective of private expenditure and a source of public expenditure. In indirect forms, it can reach all classes of people, who hold excessive purchasing power. A third mechanism may be to keep public expenditure, as far as possible, in the form of loans. This mortgages income and reduces the tendency to spend. For the lower income groups, particularly for items like house construction, which bear no income, repayment of loans may be in labour to be rendered on public projects. A complete plan on this basis was drawn up for the Chingleput district for a One Crore Scheme of rural housing.

The future therefore of planning is hopeful. Only, it is necessary that the subject remains under constant study so that the plan is steadily enlarged on the basis of its success, to cover the vast deficiencies that exist both in the production and consumption of the country.

India has at present 5,000 Telegraph Offices as against 3,324 at the time of independence. Besides, 4,000 Telegraph Offices have been set up for the railways and at various irrigation project areas.



Facsimile of one of the selected designs showing the Bodhi Tree in full moon light. This entry was sent by Shri C. R. Pakra-shi of Delhi.

Rural Development Work in Madras

Some Random Thoughts

By SRI A. K. VENKATESAN, Chief Reporter, "The Hindu".

Of the many progressive activities undertaken in the country since attainment of independence, the most significant, it has been claimed, has been the growth of Community Projects and National Extension Service in the vast rural areas of India. This development has been described as a process of self-help primarily on the part of the village community "a people's movement assisted by Governmental participation".

Recently, the writer of this article had the opportunity, along with a number of other journalists, to go round some of the areas under the Community Project and National Extension Service Programmes in Coimbatore, Malabar and South Kanara districts. The trip offered them an opportunity of gathering first-hand impressions of what has been done and the benefits resulting therefrom.

Malabar lags behind

In terms of money spent or other quantitative measures the record may be considered quite notable and those in charge can justifiably feel satisfied about it. Hundreds of miles of road, kutchra and pucca, have been laid. Several remote areas have been opened up and isolated villages brought within the regular lines of communications. Drinking water wells have been provided in a number of places where this elementary amenity was lacking. Reasonable housing has been made available for some Harijan and low income group families, and the constructions we saw of such colonies in certain villages in the Lower Bhavani Project area were very good indeed. Schemes for providing essential services like medical relief, maternity assistance, schools, recreation centres for the young, and other such amenities were also in different stages of progress. Public co-operation has been more noticeable in Coimbatore and South Kanara

than in Malabar. In South Kanara district, an area well known for difficulty of communications on account of hills and forests, unbridged rivers and unfordable monsoon streams, good work has been done by way of laying roads, building bridges and culverts and otherwise improving communications. Quite useful work has been done also to popularise modern and scientific methods of agriculture and manuring and crop protection, to assist irrigation, develop cattle wealth and raise better breeds. Altogether about Rs. 273 lakhs has been provided by the Government up to the end of September last (later figures are not available) for such works and the contribution of the villagers amounted to Rs. 73 lakhs, about Rs. 28 lakhs in cash and the rest in the shape of labour.

One need not elaborate on the benefit that is bound to accrue to the economy and life of the people in the several

areas in question as a result of such works. At the same time it is no reflection on the work done and the results achieved so far should one point out that despite all these, rural life does not seem to have appreciably changed. What has been done so far seems but a fraction and quite a lot more remains to be done, even considered in terms merely of physical results. Indeed, that only provides a measure of the gravity and vastness of the problem of rural rehabilitation.

While each type of work has its own special characteristics and variations in emphasis or burden-sharing, the common objective of all the activities, whether under the C.P., N.E.S. or other programme, is to enable the villagers to build a new life for themselves. The "good life" contemplated is to comprehend all aspects of rural activity, economic, social, moral and cultural, and in the striving for



Protected water-supply—Villagers digging a drain for laying the pipe at Pudupeer Kadavu near Bhavanisagar.



A tobacco field, once a dry area, now yielding rich commercial crop.

such all-round progress every family has to be an active and conscious participant. That is the ideal set and the philosophy underlying the programme.

"People's Movement," still far-off

The overall impression left, after our tour of the areas, has been that the stage is still far off when the work can be described as "a people's movement" of this kind, or an effort of the community, for the community and by the community, with Government's help. On the other hand, in many of the places we visited it struck us that the initiative as well as the bulk of the effort has been governmental. Such participation as has been forthcoming on the part of the people, we learnt, was the result of a lot of persuasion and even a gentle handling of local magnates and village factions. In fairness, I must add that we came across several individual cases of generosity and willing assistance by philanthropically inclined villagers and even groups of villagers; but such instances only served to emphasise the impression that the generality of the rural population were still not in it, and were apathetic, and in quite a few places even sceptical, in regard to these activities.

Reassuring features

A variety of reasons may be given to explain this state of affairs, but it is needless to go into these now. The conclusion, however, may be drawn,

4A

and hesitate at first and be even slow to start; but once the advantages of a change are positively demonstrated, his co-operation is wholehearted. All this indicates the importance of organising the educative side of the campaign adequately to cope with the situation.

Another equally reassuring feature is the keenness and enthusiasm we noticed among the workers, both official and non-official, at various levels. Some of us were struck by the extent of personal identification and missionary zeal shown by a number of them for the cause. That should augur very well indeed for the future of the effort.

Propaganda has also to be directed to getting the people to participate in the work on the basis of mutual goodwill and harmony and not merely with a view to getting certain targets reached somehow. The whole programme has been conceived by the planners as a means to regeneration of the village not merely on the material but on the social and moral side as well. In fact, to me this latter appears to be an even more important objective than the material improvement aimed at. The need for recapturing the spirit of co-operation and sense of corporate life cannot be over-emphasised in this connection.

The immediate needs of the people in each area should receive priority



View of Lower Bhavani Main Canal which irrigates and brings prosperity to Community Project areas of Coimbatore district



Sri P. Nachimuthu Gounder Municipal Maternity Home, Pollachi, recently declared open by Sri P. S. Kumaraswami Raja, Governor of Orissa.

of attention. That would be a sure means of enlisting active co-operation and participation of the people. Drinking water facilities, medical service centres, a badly needed elementary school or a small irrigation work which may make all the difference between total failure of crop and reasonable harvest,—such things touch the villager intimately. Co-operation for such urgently needed works can be expected in larger measure and with greater readiness than for putting up a community hall, a library or other such amenity, which, however good itself, may not be equally urgent.

Speed and Elasticity Needed

In providing for such works, one should desire to see a greater amount

of speed and elasticity in execution. Where procedural requirement or centralisation tends to retard speed, necessary relaxation must be effected, so that the work can progress at greater tempo and yield quicker results. Of course, care should always be taken to see that sixteen annas worth is ensured for every rupee spent.

All these indicate a field where dynamic and imaginative leadership is necessary, and call for an effort in a big way to mobilise the resources,—human as well as material, available in each area. One hopes that the work, now fairly well set, will continue unabated, or, may we hope, even in larger amplitude and at greater pace because of the promise it holds for better life in our villages.

MEMOIRS OF THE AGRICULTURAL DEPARTMENT

The publication contains detailed information on the work done by the Madras Agricultural Department from its inception in all fields of activities. The sale price has been reduced from Rs. 36-10-0 to Rs. 22-8-0 per copy.

The copies can be had from:

The Superintendent,
Government Press,
Publications Branch, Mount Road,
MADRAS-2.

(Continued from page 3)

earthquakes are trivial in comparison to them. So, also, revolutions are merely the outward evidence of a long process of change and subtle erosion. Thus, change itself is a continuous process, and even a static continuity must yield to gradual change so long as it is not overcome by complete stagnation and death.

There are periods in history when the processes and tempo of change are more in evidence. At other times, the appearance is much more static. The static period in the life of a nation is a period of progressive deterioration and weakness, leading to the decay of the creative arts and tendencies and often to political subjection.

The Split-personality.

In India, we developed at one and the same time the broadest tolerance and catholicity of thought and opinion as well as the narrowest social forms of behaviour. This split-personality has pursued us and we struggle against it even to-day. We overlook and excuse our own failings and narrowness of custom and habit by references to the great thoughts we have inherited from our ancestors. But there is an essential conflict between the two, and so long as we do not resolve it, we shall continue to have this split-personality.

At the Atomic Threshold.

In a more or less static period these opposed elements did not come into conflict with each other much. But, as the tempo of political and economic change has grown faster, these conflicts also have come more in evidence. In the atomic age, at the threshold of which we stand, we are compelled by overwhelming circumstances to put an end to this inner conflict. To fail to do so is to fail as a nation and lose even the virtues that we have possessed

[From the Forward, written by the Prime Minister Nehru to a new Hindi book—Four phases of Culture—By Shri R. D. Sinha Dinker.]

India, with an annual production of 60,000 tons of cashew nuts, has a monopoly of cashew trade in the World. Ninety per cent of the trade is in Indian hands. The principal buyers are the United States and the United Kingdom who import 75 per cent of the Indian produce.



16A THE POLISH CULTURAL DELEGATION IN THE CITY

The pictures show their arrival at the Central Station; the members of the Delegation with Mayor and Chief Justice. His Excellency J. K. Wende calling on the Chief Minister.



A "CELEBRATED CENTENARIAN"

The Centenary Celebrations of the Saidapet Teachers' College mark a milestone in the march of education in Madras State. Pictures, among others, show : Sri Ismaraj presiding over the Inaugural Conference, D.P.I. opening the Exhibition, the Education Minister presiding over the Commemoration Day and the Vice-Chancellor delivering the Address, the inauguration of the Sports by Industries Minister, Dr. Cherian and P.W. Minister distributing...



The Co-operative Movement in the State

By SRI A. B. SHETTY, Minister for Co-operation.

The co-operative movement has been making steady progress in this State. At the end of June 1955, the total number of societies of all types was 15,100, with a membership of 26.62 lakhs and their working capital was Rs. 64.72 crores. Out of this number, 10,489 were agricultural credit societies which cover 58.9 per cent of the villages and serve 23.5 per cent of the rural population. These societies issued loans to their members to the extent of Rs. 4.35 crores recording an increase of Rs. 85 lakhs over the previous year. Marketing societies also issued loans to the extent of about Rs. 80 lakhs as against Rs. 45 lakhs in the previous year. The Reserve Bank of India provided increased accommodation to the Madras State Co-operative Bank for financing the Central Banks both under Short Term and Medium Term.

New Phase of Development.

The year 1955-56 has been one of great importance to the co-operative movement all over the country. In co-ordination with the Government of India and the Reserve Bank and with their assistance, each State is taking steps for the development of co-operative credit, marketing and other economic activities broadly on the lines recommended by the Rural Credit Survey Committee. Under the scheme of Integrated Rural Credit and Marketing included in the Second Plan of our State, the co-operatives are expected to provide annually three times the volume of credit now provided by them to the agriculturists. By the end of the next Plan Period, the agricultural credit societies are expected to cover 75 per cent of the villages and serve 50 per cent of the rural population. These societies together with the marketing societies and land mortgage banks should annually provide credit to the cultivators to the extent of Rs. 15 crores, meeting thereby

21 per cent of the credit requirements of the cultivators in the State.

Schemes of Expansion.

Four hundred large-sized societies including 25 rural banks will be organized at the rate of 80 large-sized societies and 5 rural banks per year. The activities of the existing credit societies will be intensified. Loans will be given on the security of anticipated crops of the members so as to extend the credit facilities to the smaller cultivators. Twenty-five land mortgage banks will be organized and special emphasis will be laid on loans for land improvement. A major feature of this scheme of expansion will be the participation by the State in the share capital structure of financing banks and large-sized societies. The administrative and supervisory staff will be strengthened and subsidized to some extent.

Marketing Societies and Godowns.

On the marketing side, 30 new, marketing societies will be established, of which 4 will be formed during the next year and the marketing activities will be expanded so as to handle at least 10 per cent of the surplus agricultural produce brought to the mandies. The existing co-operative wholesale stores will be reorganized as district supply and marketing societies and this process is already going on. A State Co-operative Marketing Society will be established during the second or the third year of the Plan Period. The marketing societies, the large-sized societies and the existing credit societies will put up 391 godowns for the storage of their members' produce with the help of Government loans and subsidies. Fifty-eight of these godowns will be constructed during the next year. Marketing societies will also undertake processing activities with loan assistance from Government.

Pilot Schemes and Rural Co-operative Banks.

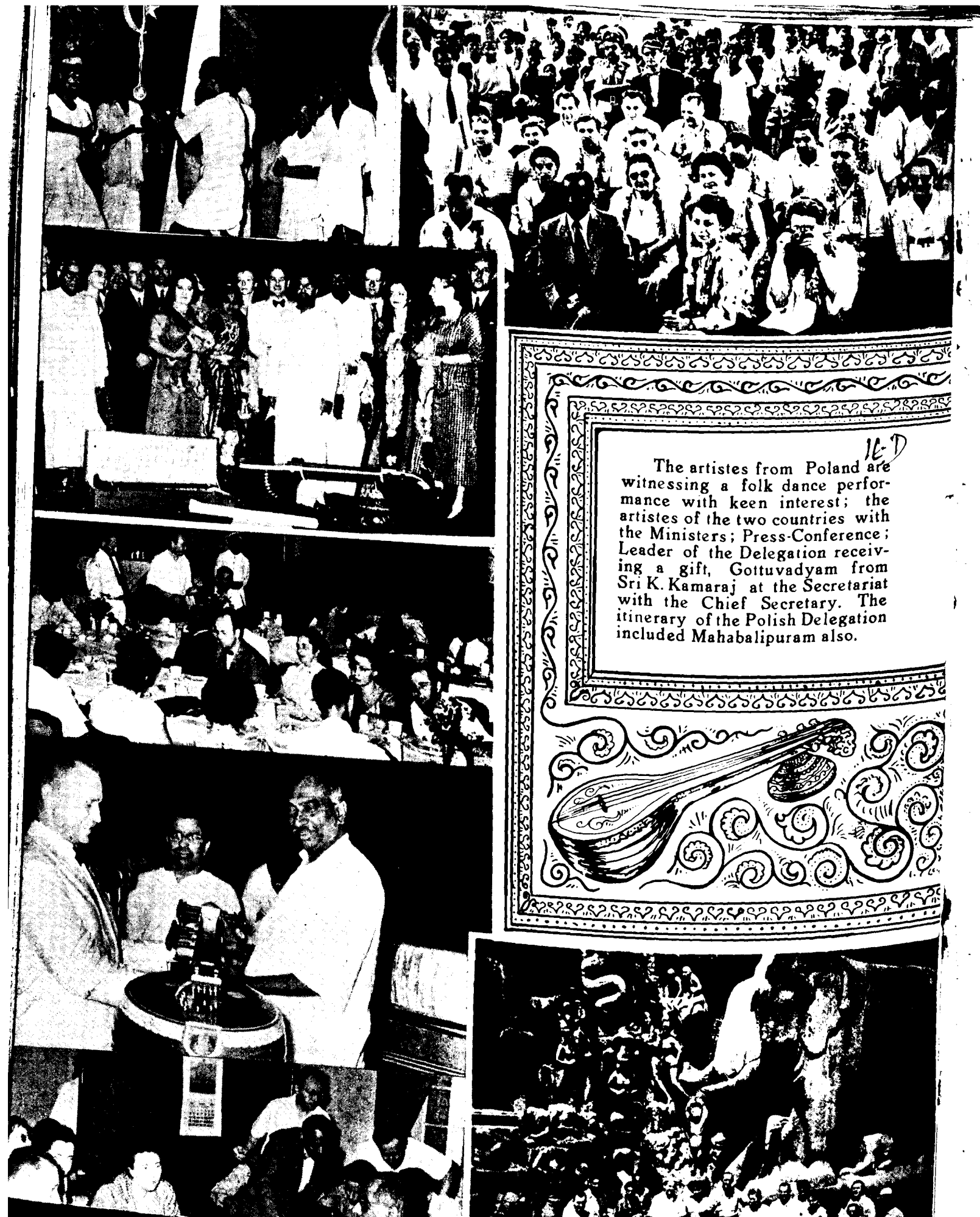
Preliminary to the implementation of the main scheme of integrated rural credit and marketing on a State-wide basis, a pilot scheme is being worked since January 1956 in two select taluks in each of the 6 districts chosen for this purpose. The 25 rural co-operative banks which have been established on limited liability basis for the provision of medium-term loans have been welcomed by the co-operators. They have been able to raise large share capital from the members and attract deposits from non-members also.

Land Mortgage Banking.

The Central Land Mortgage Bank with its net-work of 73 primary banks continued to do useful work during the year. More loans are being issued for land improvement and for periods less than 20 years. The debentures have been oversubscribed. In the Second Five-Year Plan, the business of these banks will be accelerated and greater emphasis laid on loans for land improvement.

Milk Supply.

The milk supply unions and societies continued to function satisfactorily and their production and sales improved. They have been the major suppliers of milk to the State hospitals in the city and the mufassal. One hundred and fifty new milk co-operatives will be formed during the next five years and Government loans on an increased scale will be provided through them for the purchase of milch animals. The other schemes for the development of milk production include the installation of pasteurisation plants, the establishment of salvage farms and cattle breeding societies.



The artistes from Poland are witnessing a folk dance performance with keen interest; the artistes of the two countries with the Ministers; Press-Conference; Leader of the Delegation receiving a gift, Gottuvadyam from Sri K. Kamaraj at the Secretariat with the Chief Secretary. The itinerary of the Polish Delegation included Mahabalipuram also.

MADRAS INFORMATION

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Consumers' Co-operatives.

The consumers' co-operative societies have had a bad time after the removal of controls over foodgrains. Special efforts are being made to weed out bad societies and retain those which will survive under conditions of normal trade.

Housing Urban and Rural.

The urban housing societies provided loans to the extent of Rs. 33.98 lakhs and 456 houses were constructed during the year. They also implemented the Low Income Group Housing Scheme sponsored by the Government of India. The Rural Housing Scheme is yet to become popular. Plans have been evolved for houses at a minimum cost of Rs. 800. Under the subsidised Industrial Housing Scheme of the Government of India, societies have been formed for the benefit of the workers of three mills and of a litho works. In the Second Five-Year Plan, a sum of Rs. 195.25 lakhs has been provided under the urban housing schemes for the construction of 2,660 houses and Rs. 103.25 lakhs under the Industrial Housing Scheme for the construction of 5,000 houses.

Weavers' Co-operatives.

The assistance provided by the Government of India out of the Cess Fund has enabled the weavers' co-operatives to make considerable headway. Fifty-one thousand seven hundred and ten looms have been brought into the co-operative fold making a total of nearly 25 per cent of the looms in the State which number nearly 5 lakhs. Their production and sales have been increased. A sum of Rs. 100 lakhs has been given as loans to provide working capital to these societies. Two hundred and seventy-five depots in addition to 53 emporia have been established to arrange for the marketing of goods. Improved appliances free of cost are being distributed to the weavers' co-operatives. A sum of Rs. 61.04 lakhs has been spent by way of rebate to consumers in order to encourage sales. It is proposed to establish a second spinning mill during the Plan Period. Three co-operative societies for the establishment of sugar mills have been organized in the districts of North Arcot, Coimbatore and Chingleput. A sum of Rs. 30 lakhs has been provided for Government to take shares in these mills. Increased attention is being paid to improving

the jaggery manufacturing industry and finding a market for the goods produced by the co-operatives.

Training of Personnel.

The various schemes in force and proposed to be launched during the plan period require a large number of trained men at all levels for management of societies, supervision, audit, etc. A new Training Institute has been set up at Kozhikode this year and it is proposed to establish another institute at Madurai during the next year. The Central Institute at Madras will be upgraded into a College. Government have also a proposal for the training of panchayatdars and members of co-operative societies in the principles and practise of co-operation on a State wide basis.

Tightening up control.

Steps are being taken to tighten up the control over the societies. Suppression of societies is being done in necessary cases, and criminal complaints are being filed in cases of misappropriation of funds by office-bearers or employees.

It may be said, in conclusion, that the co-operative movement has entered upon a new era of planned development with the full support of the resources of the Central Government and the Reserve Bank of India. The co-operative staff, official as well

as non-official, and the public should give their full co-operation in strengthening the co-operative institutions and enabling them to play their part in the economic development of the country in future.

Snippets

The Government of India have, up to January 1956, sanctioned Rs. 30,34,902 as grants to various State Governments for advancement of basic education during the current financial year.

The Union Government have reserved 750 beds in various hospitals in the country for the free treatment of indigent displaced tuberculosis patients from East and West Pakistan during 1955-56.

Up to June last year, India has granted 340 training awards and supplied 14 experts to various countries under the Colombo Plan.

Jute production in India rose to 10.8 lakhs tons in 1955 from 10.1 lakhs tons during 1954.

A new method for the preparation of Orange Juice Powder has been standardised at the Central Food Technological Research Institute, Mysore. The juice powder can now be fortified with vitamin C and can be used for the preparation of sweetened orange juice.



Members of the Netherlands Press Delegation who visited Madras in February this year seen with Sri K. Kamaraj, Chief Minister, Sri C. Subramaniam and prominent city journalists, who attended a dinner given by Sri C. Subramaniam at Hotel Oceanic, in honour of the Delegation.



The Finance Minister, who presided over the Anniversary Day Celebrations of the Stri Sadana and Vigilance Home, addressing the gathering.

Stri Sadana and Vigilance Home

Stri Sadana and Vigilance Home are two of the statutory institutions, working under the Madras Suppression of Immoral Traffic Act. Their aim is to receive and remould the "Sex-delinquents" and "Morally Vulnerable" girls and women of our State as normal and self-respecting citizens, useful to themselves and to others.

These two institutions have completed, seven years of their existence. The Stri Sadana Rescue Home, with a Shelter, is housed in Santhome High Road and is mainly meant to take in minor girls below 18 years of age, rescued from brothels under Section

6(1) of the Madras Suppression of Immoral Traffic Act. In addition to this, the Home also harbours girls, who have strayed away from their homes, unmarried mothers, destitute girls disowned and deserted by their relatives because of their moral lapses and kidnapped minor girls above 13 years of age, whose relatives have denied to receive them back in their houses.

The Vigilance Home is the only State Institution that takes in women below 30 years of age, given to street solicitation and charged by the Police under the Madras Suppression of Immoral

Traffic Act and sent to the Home by the Magistrates in the State for varied periods ranging between 2 and 5 years.

The majority of these unfortunate girls and women are victims to circumstances having been driven to bad ways by want of a real home due to neglected care of parents and guardians, lack of education and proper association and absence of facilities for proper upbringing.

The training imparted in these institutions is of an all-embracing character, comprising educational and vocational physical culture, moral and religious and practical guidance in life.

Child's Place in Community Development

Until recently the village child was practically nobody's concern. His development was left entirely to chance and the prevailing circumstances. There was no planned provision for him of things that a child, at his or her time of life, needs most, such as schools, playgrounds, healthy environment and opportunities for developing the creative instinct.

A Sense of Being.
With the attention paid to all-round progress of the village community under the Community Projects, the child, however, has come in for his share of the benefits derived from the scheme. He now has a sense of being, and as the future citizen of India, a hope of doing well by his country and community.

In most of the Community Projects the care of the child is now an important item in the development programme and the idea is catching on. Both his physical and mental needs are catered to in a planned manner. It is undoubtedly a vast problem—the welfare of the millions of village children in India—but a beginning has been made

(Continued on page 28)

Tradition and Talent in Art

Art Exhibitions, thanks to the urge of self-expression and survival as an integrated sector in society on the part of the painters of this region, have become almost a regular feature in the City. About a decade back, almost against the dictates of the prevalent popular taste, a group of *avant-grade* artists took the initiative in arranging periodical exhibitions of their works and those of the other fellow-artists. The response from the public, in the beginning, as expected was meagre and criticism discouraging. But despite initial set-backs, the pioneers of the modern movement in art succeeded gradually in communicating their sense of form and feeling to an ever-increasing number of art-loving public.

They have come to stay.

The works of K. C. S. Panicker, whose contribution to modern Indian painting is considered to be of immense significance the terra-cotta sculptures of S. Dhanapal with their beautiful blending and continuation of the grand Indian tradition and contemporary Western trends, P. L. N. Murthi's paintings which have caught the spirit of ancient Indian *murals*, the picturesque landscapes of Krishna Rao, revealing the beauty and delicacy of fluid water-colour and Ramgopal's poetic paintings have by now been widely acclaimed as some of the best and enduring products of the Southern school. And there are many more talented artists in the making, whose works, as time passes on, are sure to inscribe their mark in the field of painting and sculpture.

Experiment in Truth and Beauty

All these painters, let it be said, are really traditional with a difference, they don't like to sacrifice their individual talents for the sake of a fake tradition. Every artist worth his salt, does and should experiment in truth and beauty in order to reveal and discover his soul as well as the surroundings through the varied media. "Man is only half by

himself; the other half is his expression". Generally, in artists, poets, musicians and creative writers, this expressive aspect is more intense, prominent and active and as far as the genuine among them are concerned the problem of dichotomy between the tradition and talent, the individual and the social, order and disorder or between the form and content, does not arise at all. Those who make so much fuss about tradition miss the very essentials of art itself, confusing tradition with changelessness. Even ordinary prejudice dies hard; prejudice concerning art being extraordinary, therefore, takes a pretty long period to disappear.

The Two go together.

"No poet, no artist of any art, has his complete meaning for alone; his significance, his appreciation is the appreciation of his relation to the dead poets and artists. You cannot value him alone; you must set him for contrast and comparison, among the dead. This is the principle of aesthetic not



Portrait

— By K. M. V. Namboodiri.

merely of historical criticism. The necessity that he shall conform, that he shall cohere, is not one-sided; what happens when a new work of art creates something that happened simultaneously to all the works of art which preceded it. The existing monuments form an ideal order among themselves which is modified by the introduction of the new (the really new) work of art among them. The existing order is complete before the new work arrives; for, order to persist after the super-vention of novelty, the existing order must be, if ever so slightly, altered; and so the relations, proportions, values of each work of art towards the whole are adjusted; and this is the conformity between the old and new."

Sympathetic Vision.

These passages are from no a less a person than Mr. T. S. Eliot, a classicist and catholicist at the same time a literary iconoclast in his own way, whose poetic works have motivated a revolution in contemporary English Letters. Static art is no art; art can never be kept or appreciated in fossilised form. Change without corresponding form is nothing but mirage. The merging of the static and the elastic evolving into an unprecedented reality is the basic law of beauty and creation, the core and quality of any ever-lasting work of art. Art being a creative fusion in the realm of truth and beauty its appreciation presupposes aesthetic cultivation, emotional arrangement and sympathetic vision. For plastic enjoyment, the first step is the recovery of the immediacy and innocence of the eye. Ordinary seeing is not aesthetic; a special kind of vision is needed for artistic understanding. As the taste of the pudding is in the eating, the development of aesthetic vision is in seeing pictures, more pictures and yet many more pictures. Needless to say, that seeing bad pictures devastatingly corrupts one's taste and that a twisted artistic taste produces spiritual stultification. But then, where shall we go, to find good pictures?



• Moore land •

—By T. Krishna Rao.

"Damn good! But now"

of being initiated to the world of art often pose this question. Herein lies the value of the Art Exhibitions. A well-organised art exhibition is a world within the world. With the necessary guidance and training you can slowly, steadily get into that world

Indian Art on its Feet

Since the advent of independence, Indian art is once again on its feet. The numerous exhibitions arranged all over the country have been helpful in bringing the works of art to the notice of the public. People's estimation of the artists has also gone high corresponding to the improved artistic cultivation of their mind. In this respect, the artists of this region have their rightful share. The recent Art Exhibition declared open by Sri S. K. Chettur, I.C.S., at the premises of the School of Arts and Crafts has added another valuable feather to the cap of our young artists. There were about 200 exhibits by 25 artists the predominant media being oils, water-colours and charcoal. The exhibition has been got up as a tribute to the outgoing students of this year and to introduce the art-loving public to the more mature aspect of their work. Many of them are already quite well-known and have won recognition as rising young painters of to-day.

young painter should seek to search madly for extremely individual modes of expression"; but, in this madness, there should be a method too. "This kind of endeavour has driven many to discard national character in the choice of idioms. The better type of painter, in spite of the whole confusion, still appears to probe his innermost self trying to evolve a pictorial language suited to his temperament and legitimate outside influences. The lesser ones seek to satisfy themselves with freakish creation, in the fond hope of arriving at real originality. We in India neglected our cultural heritage in the near past owing to certain conditions. It is therefore natural that there should be some confusion in catching up with a progressive world all on a sudden. We are bound to make our mark in the near future and lay the foundation for a future tradition suited to our national temperament and determined by universal factors. But then again, the individual makes the tradition and therefore the individual has to find himself first. He cannot do it by futile repetitions, stagnation or by the cramping of the spirit. His surging inspiration must drive him forth on a joyous adventure in search of himself and eternal beauty of expression; ever blissful, ever forging ahead, as if perennial voice continued to whisper in his ears, "Damn good! but now do something else."

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Community Development

How at works in Madras

By SRI P. S. DESIKACHARI, Chief Reporter, "The Mail".

Madras, February 1, 1928—One thousand miles by rail and over one thousand miles by road were covered in nine days in the Community Projects, National Extension Service Scheme, Community Development and Local Development areas in Coimbatore, Malabar and South Kanara districts by a dozen representatives of newspapers and news agencies in a conducted tour arranged by the Government, a young, active and intelligent, Public Relation Officer accompanying and guiding them. The community development plan sought to revitalize the villages so that by a process of self-help and assisted by the Government in the shape of technical service and supplies they could march forward. The villagers who depend on the Government for everything had to realize that they should act together in a community spirit and realize that without increased production they could not improve their standard of living. In the circumstances, the whole reconstruction programme is regarded as essentially a people's programme, designed and executed by themselves and with this object in view people's organization were built up in rural areas and wherever panchayats were in existence they were entrusted with the designing and execution of the village plan and in other cases, development panchayats or Grama Seva Sangham had been constituted for the purpose. To train village leaderships, training camps were held in every block and advisory committees had been constituted to draw up integrated plans. For the benefit of non-official members of the committees seminars were held.

The work so far done had stepped up agricultural production. Several miles of village roads had been formed by the rural folks themselves, funds being provided from the project funds

for the construction of culverts, etc., wells had been constructed new or renovated and community recreation centres had also been started. There was really a great awakening in the people to provide themselves with the necessary amenities instead of going to the Government or local body with beggars bowls.

People now come forward with contribution in the form of cash, labour or materials and find that the agencies in the community projects and N.E.S. blocks were prepared to assist them in expeditious execution of works for their benefit. There was, in fact competition among the inhabitants of villages to offer their contribution for works in their areas and in some cases the funds available were insufficient to meet all the demands. The value of their contribution till now had exceeded Rs. 50 lakhs. There were schemes also for developing village industries including handspinning.



"LONG LONG AGO THE DEVILS".
A Devil dance performance in a South Kanara village.

Women were taught to spinning the Government Khadi Department had made arrangements to supply the spinners with cotton and collect yarn from them for weaving. There is great demand for charkas. Schemes relating to tanning, blacksmithy, etc., had been sanctioned by the Government.

There were women's clubs or Mahila Samajams in several villages where they meet and discuss their common problems besides learning tailoring, embroidery, etc.

In this State more than a quarter of the population has already been covered by the development programme and the entire State would be covered by the N.E.S. schemes during the Second Five-Year Plan.

The press party left Madras by train on February 3 night for Erode en-route to the Lower Bhavani Project area. They were struck by the immense variety of scenery, peoples and customs which are peculiarly their own. Everywhere they went they received a most whole-hearted welcome.

The party's first visit was to the veterinary dispensary at Kavandhapadi where they found Red horn variety of poultry and also stud bulls being maintained for service. Nearby Harijans were hard at work in building up substantial tenements for themselves. Some schools, buildings, new oil presser, library distribution centre, co-operative society godown at Gobichettipalayam were visited.

At Kallipatti we saw a new Harijan Colony arising with 30 houses, land being donated by Mr. C. K. Kumaraswamy Gounder. At the nearby Bungalowpudur we saw the buildings of a high school being expanded with Government assistance and also arrangements

for protected water-supply. Mr. P. C. Karuthiruman, M.L.A., entertained the Party at lunch in his spacious and new bungalow. He is also an expert agriculturist, adapting the Japanese method of paddy cultivation.

Later we saw at Thukkanaickenpalayam a health centre, newly constructed Harijan houses, roads and culverts, tobacco, farm, etc. There was also a Harijan colony at Periyakodiveri with 34 houses decently kept with a maternity centre. After visiting some more centres we reached Bhavani Sagar dam for the night a stay.

One striking thing was that cheris were close to Hindu quarters and at one place only a drain dividing the communities. At another place a Harijan convert was seen living amicably with Hindu Harijans. What provoked a burst of laughter in a cheri was the question put by a reporter whether he could marry a Harijan girl and whether he would be served with food as Harijan leaders favour inter-dining and intermarriages, encouraged by the offer of a bride made openly in the Legislative Assembly some time last year of a Harijan bride to the confirmed bachelor Mr. K. Kamaraj, Chief Minister. But the reporter did not get a favourable response. Next he inquired a Harijan woman whether she could offer him some illicit liquor to quench his thirst and her reply that she had not had it herself for ten days provoked not only suspicion but also laughter!

II

We had a bird's eye view of the Lower Bhavani project and the lake which was about semi-full. And the officials showed us the supply of water through the Bhavani river and the channel. Very little water was let into the river as the harvest season was approaching. The project supplies water to a large area and the local feeling is that the area should be extended and more water resources be found. On the fifth morning we visited the extension training centre where Grama Sevaks were trained and we were welcomed.

We proceeded next to Tiruppur Khadi Production Centre where we saw the manufacture of Charkhas and spinning and dyeing process. We were amazed to see large stocks of shirting, coatings, towels, bed sheets, etc., piled at the godown, valued over Rs. 3 lakhs. Most of the stock were

supplied to railway and police departments for uniforms. The centre covers a number of adjoining villages where the village folk were supplied with cotton and; yarn was later collected from them regularly, the work being part-time, lasting a few hours a day. Before we reached Perundurai late in the evening we visited Harijan colonies at Nariparichal and Samigounderpalayam, school buildings at Chengapalliyam, school buildings and maternity centres at Narianur and maternity centres at Vijayamangalam and Narianur besides a recreation centre at Karumandichellipalayam constructed under the aid system by the localities.

Perundurai, which has become famous because of the T.B. Sanatorium, fighting the foul disease successfully was buzzing with life, not on account of our presence, but by the presence of the Governor Shri Sri Prakasa and the District Collectors of Coimbatore and Salem and the music concert at the nearby Erode by Mrs. M. S. Subbalakshmi. The Coimbatore Collector entertained us at a tea party. We were told that most of the work for improving the local areas were achieved through the enthusiasm and contribution of the middle and lower classes. But it was explained that a portion of the allotment for the works from Government sources came from about Rs. 17 lakhs paid by the Coimbatore mill owners in the form of income-tax and it could not therefore

be stated that the rich neglected the all-round development of the lower classes.

We resumed our journey on the 6th morning and visited first Chennimalai town built at the foot of a hill on the top of which there was the popular Subramaniaswami temple which attracted thousands of pilgrims on the *Thaipusam* day and which was as famous in that area as the Palani temple was in the South. Chennimalai is also famous as a handloom weaving centre and its bed-sheets have won fame for their durability and attractive design. Recently it was awarded a prize at the Delhi competition.

The famous cattle farm of the Pattagar of Palayakottai engaged our attention next. Before we were taken round the farms the Pattagar received us at his old fashioned palatial residence, the long pials of which were covered with mats and carpets and the walls with photos of distinguished visitors including some of the ex-Governors, and entertained us at breakfast. Then he drove us to his extensive farms and explained to us the breeding operations of the cattle. He told us with pride that not a day passed without a cow calving. We saw magnificent breeding bulls tied to strong posts and also the padlocks where growing bulls were confined, till they were sold out for Rs. 1,000 each. There was also a special forest area where horses were let loose.



Additional block to Government Hospital in Palghat constructed with the initiative of Community Project Staff and Public Contribution.

Facts and Figures

An expenditure of about Rs. 143.87 lakhs was incurred on the B.C.G. vaccination programme up to the end of 1955-56. Of this, the Union Government spent Rs. 22.06 lakhs and the State Governments Rs. 121.81 lakhs.

The Indian Council of Agricultural Research has sanctioned a sum of Rs. 212 lakhs for agriculture and animal husbandry research schemes for the next three years.

Soap production in India in 1955 stood at 94,000 tons, which was 6,000 tons more than the output in 1954.

India's earnings from the export of Palmyra products every year are about Rs. 90 lakhs.

The Chittaranjan Locomotive Works has produced 337 locomotives during the First Five-Year Plan period as against the target of 268 locomotives.

Over 45,600 goods wagons are expected to be produced by the end of the first Five-Year Plan as against the target of 30,000 wagons.

The Government of India have so far sanctioned Rs. 62.95 lakhs to Uttar Pradesh for improving roads leading to Buddhist pilgrim centres for affording facilities to pilgrims attending Buddha Jayanti celebrations.

The production of mill cloth in India rose to 5,046.4 million yards during 1955 from 4,997.7 millions yards in 1954.

MADRAS INFORMATION

III

After wishing goodbye to the Pattagar we proceeded to Muthur primary health centre and the artificial insemination centre at Kangayam and the Harijan colony at Pullampalayam which was neat and tidy and with which the inhabitants were satisfied, en route to Palghat via Coimbatore.

Palghat is a growing area and has gained additional importance by the execution of the Malampuzha project. It needs more and more electricity supply for domestic and industrial purposes. We were not satisfied with the sanitation. There was Kalpathi area on one side and it had produced great and good men in several walks of life, it being an intellectual centre. There almost all those who retired from Government service had settled down and we were told that they drew from the Government treasure a pension of some lakhs of rupees a year.

On the 7th morning we were taken to an artificial insemination centre, youth club and health centre at Koyalamannam, Mahila Samajam, recreation club, etc., which were in fact similar to those we had already seen. What was most interesting was the *yogasana* centre subsidised under the project and the pupils undergoing training included a member of the Bar and belonged to all communities. The man in charge gave interesting demonstration of the *asanas*. The Nayadi colony at Olavakkot does not seem to be popular as the inmates

who were few were not happy and did not give up the begging habit. Though they were granted land to eke out their livelihood, they preferred begging and this the authorities could not stop because the yield from their land lasted them only five months in the year. In the evening after visiting the Malampuzha dam which and the Lower Bhavani dam were noted for brilliant engineering enterprise, we proceeded to Kollengode the headquarters of the Rajah of Kollengode. We were whole heartedly received by the manager and the Junior Raja and his sister who showed us round. We finally went to the Rajah's High School. The pupils staged Kathakali which was interesting. Though there were a number of intelligent girl students and a special course for Kathakali had been introduced, they did not take part in the Kathakali. The management proposes to convert the school into a college as soon as sufficient funds are available. After sumptuous dinner we returned to the Malampuzha dam rest-house for the night.

Earlier we visited the Mahila Samajam at Kottayee, the panchayat office in a mango grove, and a Harijan colony under construction at Perungottukurissi, the land for which was donated by Narayanan Nambudiripad, who though belonged to a conservative family which observed untouchability, was present in the colony in the midst of Harijans who he remarks were "after all God's creation and were similar to ourselves", witnessing

with keen interest the folk dance they performed. We then lunched at a *tarwad*, typical Malabar joint family house, the host being at his best.

On the eighth day we drove a long distance through ideal country to the famous Krishna temple at Guruvayur which is as popular as the Venkateswara temple at Tirupati. The temple is small, particularly the *sanc-tum sanctorum*, but its sanctity was great. The *puja* begins at about 3 a.m. and proceeds throughout the day with, of course, small breaks and terminates shortly after 10 p.m. The early morning rites and the evening processions are most popular. One thing that attracted our attention was the absence of many beggars in such a place of pilgrimage. There were next the marriage ceremonies performed at the temple and these were simple and the contracting parties exchange garlands or in a few instances the groom presents his bride with *Thundu* and in no case we saw the tying of the tali as in the south. The next morning after witnessing the early *puja* and receiving *prasadam*s we resumed our journey for Mangalore.

Leaving by road early on the 10th morning to go to the Udupi end of the district hardly had we passed a few miles we saw young girls, neatly dressed wearing flowers and carrying their tiffin baskets proceeding to cashew-nut factories. We wished that workers in the Madras area were as clean and healthy. Villagers of Radagayedapadav and Iruvall laid roads.

What South Kanara needs most are culverts, bridges and road to span jungle streams and rivers which hindered communications from one end of the district to another end. We were told at one place the inhabitants of some village in the hilly area could not get out during the monsoon months because the streams were not bridged. They would have therefore store up provisions for that period earlier lest they should starve. The National Extension Saving Scheme and the Local Development scheme were, therefore, a blessing to them in opening up new areas through the establishment of roads and culverts or bridges. Most of the achievement they owed to the enthusiasm and leadership of the project Executive Officer, Mr. Narasimham and the District Collector who did not boss over the people but sought gently and persuasively the people's co-operation and contribution in executing most of the works.

At Moodbidri we found the people, men and women, rich and poor were really enthusiastic about the development projects and schemes. This was evident in veterinary dispensary, community hall, women's centre, children's corner. These were also evident in Shirhady and few other adjoining places we visited. We had a magnificent reception at Karkal where after dinner we were entertained with a cultural programme of entertainment including devil dance, ordinary dance by small girls from adjoining centres, etc., which were greatly appreciated by 10,000 gathering who applauded the artistes frequently.

We next went to the Udupi temple and offered prayer to Lord Krishna and later paid our respect to the Madathipathi in charge of the temple. He spoke in English fluently and after giving us his blessings and *prasadam*s advised us to visit the temple annually.

We then toured the Medical institutions at Manipal which were built from a scratch and which stood in an expansive colony, commanding a good view of the sea on two sides. The institutions had been fitted up up-to-date and experienced professors employed. Dr. Pai explained to us the difficult circumstances in which the institutions rose and he was now happy that his own and co-workers' endeavours were bearing fruits. Mr. and Mrs. Anantha bearing fruits. Mr. and Mrs. Anantha Pai, the latter doing intensive social service work, explained to us how a maternity centre with 12 beds had been constructed at almost half the official estimated cost. They contented accordingly that more such work could be done cheaply and satisfactorily, though the official eye was on long-range programme, involving of course high expenditure.

We resumed our return journey to Mangalore through another route. The Health Minister, Mr. A. B. Shetty who was there then gave a dinner in our honour and this was followed by a farewell breakfast by Mr. Vaikunta Baliga at his residence on our way to Baliga at his residence on our way to the railway station. We entrained on Sunday morning and without incident arrived in Madras the next morning.



Nayadi Colony near Olavakkot (Malampuzha Project)—Housing facilities for the depressed and once unseemable Harijans provided under Community Projects.

Yogasana Centre at Palghat.—An honorarium of Rs. 50 per mensem is given to the instructor in charge of the Training Centre.



(Left) A general view of Harijan colony at Periyakoduveri in Lower Bhavani Project area. (Right) Veterinary Dispensary at Kavandapadi.



The symposium on Housing and Building Materials was inaugurated recently by Sardar Swaran Singh, Minister for Works, Housing and Supply, Government of India, at the Exhibition Ground, New Delhi.

Housing in India

Housing, man's basic need next to food and clothing, is still a major problem before the nation. The rapid rise in population, movement from rural to urban areas by large numbers in search of employment, and the influx of displaced persons have added to the complexities of the problem, which, on account of other more pressing demands, could not be given a high priority in the First Plan allocations. Nevertheless, a beginning has been made by the State in the First Plan to take on, to a limited extent, the responsibility of housing the people which till then was purely a private enterprise.

Realising the profound influence of proper housing on the health and the working capacity of the individual, the Planning Commission made an allocation of Rs. 38.5 crores for this purpose in the First Plan. This amount was mainly utilised for making a start with housing colonies for industrial workers and giving financial facilities to low-income groups.

Second Plan Proposals

In the Second Five-Year Plan, the allocation is likely to be raised to Rs. 120 crores. It is intended that, in addition to industrial workers and low-income group housing, emphasis should now also be laid on slum clearance and middle-income group housing.

The progressive deterioration in urban housing, despite a spurt in Government and private building activities during recent years, can be gauged from the fact that the number of city dwellers has been increasing by 5.2 million between 1921 and 1931; by 10.6 million between 1931 and 1941 and by 16.3 million between 1941 and 1951.

To cater to the housing requirements of a growing urban population, over nine million houses will have to be constructed during 1955-61. The cost of building these will be enormous, but even if calculated for a target of three million houses, it will run to Rs. 1,250 crores on a conservative reckoning. On the present basis of the country's planned development in all sectors of public needs and the financial resources, it would be obvious that it is not possible to divert such a huge amount for housing alone. At the same time it is not in keeping with a socialistic pattern of society to ignore it and to allow the situation to worsen specially for the low-income groups in the country.

Subsidised Industrial Housing

Industrial workers are about the worst housed section of the population. After two schemes to encourage the industrialists to build houses for their workers had failed, the Government of India launched the

Subsidised Industrial Housing Scheme late in 1952.

Under this scheme, 50 per cent of the cost was paid as subsidy to State Governments, and 25 per cent as subsidy to employers' and workers' co-operatives. The Union Government has so far sanctioned Rs. 21 crores for the construction of about 78,000 houses, 85 per cent of which will be built by the State Governments, 13½ per cent by employers and 1½ per cent by the workers' co-operatives.

Figures of financial assistance sanctioned and disbursed under the scheme up to November 30, 1955, are :

	(In lakhs of rupees).	
	Loan.	Subsidy.
Financial assistance sanctioned.	1,129	1,040
Financial assistance disbursed.	658	280
Number of tenements sanctioned till 30th November 1955.	78,000 approx.	
Number of tenements constructed till 30th November 1955.	34,000 approx.	

Over 9,000 tenements have so far been completed in Uttar Pradesh while in Bombay over 7,000 have been built for the industrial workers.

Following are the figures for other States: Andhra 204; Bhopal 268; Bihar 1,613; Delhi 100; Hyderabad 3,804; Madhya Bharat 2,818; Madhya Pradesh 864; Madras 547; Mysore 2,838; Orissa 624; Pepsu 192; Punjab 924; Rajasthan 388; Saurashtra 842; Travancore-Cochin 50 and West Bengal 807.

During the Second Plan it should be possible for all the three agencies—Government, employers and co-operatives—to increase their effort to provide houses for industrial workers, whose number is expected to grow with the greater emphasis on industrialisation in the Plan.

On its part, Government proposes to divert more money to industrial workers' houses and the impact of this is likely to result in larger contributions from private employers.

Slum Clearance

Despite limited funds at its disposal, Government is planning to make some provision for clearing slums in urban areas. The principle of subsidising slum clearance schemes has been accepted and subsidies as well as loans are proposed to be given to the State Governments to work out their schemes for slum clearance. In this connection the Housing Ministers' Conference last year felt that subsidisation of less than 50 per cent would not really help to solve the problem. It suggested that a beginning might be made by creating a central fund to which contributions could be made both by the Union and State Governments for making available financial assistance strictly on the merits of each slum clearance scheme.

The Union Minister for Works, Housing and Supply, Sardar Swaran Singh, recently indicated that if about Rs. 20 crores were allocated in the Second Plan for slum clearance, it might be possible to rehabilitate a little over 100,000 families by making available to half of them well-laid-out houses and to the other half developed plots on which they could build their own houses with their own labour.

He felt that Government itself should step in to redress a long-standing evil "without entering into fine calculations about whether the rent-paying capacity of the slum-dwellers would

justify giving them better surroundings and better dwellings".

Low-income Group Housing Scheme

To help low-income groups, the Union Government announced late in 1954 a scheme, under which persons whose earnings were less than Rs. 500 per month could get a loan up to Rs. 8,000 for constructing houses. The Union Government disburses loans to the States, which in turn give advances to individuals or co-operative housing societies belonging to low-income groups. So far, about Rs. 21 crores have been sanctioned for distribution to the States.

The State Governments can also, if they desire, loan the money to Housing Finance Corporations providing facilities to low-income groups for the construction of houses. The loan assistance by the Centre will not exceed 80 per cent of the cost of the house, including land, for which the State Governments may apply for aid subject to a maximum of Rs. 8,000 per house.

Middle-income Group

A scheme for housing the middle-income group is expected to be introduced shortly. As at present contemplated, it envisages loans advanced by Government and insurance companies to individuals up to Rs. 25,000 per house, or 80 per cent of the cost of the

house, whichever is less. Every joint loan will be shared by the Union Government and the insurance company in the ratio of 1:3, and the loan which will be repaid in 15, 20 or 25 years, will be secured by the mortgage of the house and the land.

Rural Housing

A problem bristling with difficulties is the housing of 83 per cent of the country's population in villages. The immediate needs of rural areas are adequate water-supply, improvements in communications and proper disposal of sewage and waste product. The best way of raising the existing standard is obviously to utilise local labour and building materials and to give technical assistance for replanning villages and houses. The magnitude of the problem and the lack of funds make it rather difficult at the moment to make provisions for subsidies and loans for rural housing. Government, however, is attempting a solution through construction of model houses built in selected areas so that villagers themselves could effect improvements in their housing standards and put up new and better houses with the resources readily available to them.

Experiments are being carried out to test the economics of the operations on model villages and to evolve a pattern to improve rural housing standards throughout the country.

(Continued on page 30)



Sri B. Parameswaran, Minister for Harijan Welfare, inspecting the City Slums.

Kendall Humanity Medals for Madras Police



VALIANT Mr. PRINCE.

His presence of mind challenged cruel Destiny, subdued her in the duel and saved two innocent lives from her fatal grip.

A Sub-Inspector's Gallantry.

Sri J. S. Prince, a Sub-Inspector of Police, Kumbakonam South Police Station, helped to save the lives of two small children, under the following circumstances: On the rainy and chilly night on November 28, 1953 at about 8-45 p.m. the Sub-Inspector heard the alarm raised by a man, who reported to him in the station that he saw a woman throwing her two children into the Pottamarai tank and then throwing herself also into the tank. The Sub-Inspector rushed out of the Police Station and casting off his shoes, plunged into the water, 15 feet deep. After a strenuous search, he succeeded in rescuing one child after the other in an unconscious state from the maze of moss-grown and weedy water. The poor victims were soon brought back to life by Head Constable Abdul Latiff and constable Sundaramoorthy, who gave artificial respiration quite promptly and effectively.

Still the task of the valiant Sub-Inspector was not over. The mother of the two children remained to be traced. He continued his search by diving again and again into the pond until he was completely exhausted.

But the noble example set by the Sub-Inspector was followed by constables Thiagarajan and M. Ganapathy and they succeeded in bringing out the woman out of the pond. But the woman was found dead.

It was learnt later that the woman had some misunderstanding with her wayward husband.

The saving of the lives of two innocent children from the jaws of death by the Sub-Inspector by risking his own life was very much appreciated by the people who gathered round the spot by this time. The Sub-Inspector was congratulated on the great courage and pluck which he displayed. The Head Constable and Police Constables who had so boldly assisted the Sub-Inspector have been rewarded departmentally.

Head Constable Arumugam.

The other recipient of the Kendall Humanity Medal is Head Constable Arumugam of Madras City Police Armed Reserve, who saved a man from drowning in a tank.

On January 9, 1954, at about 6 p.m. Head Constable Arumugam, while going along Park Road, found a crowd near the tank. On nearing the tank, he saw a person struggling in the water. It was obvious that the man had been caught in the weeds and none in the crowd dared to go to his rescue,

(Continued from page 19)

and the results achieved so far are encouraging.

In working for the village child's welfare his educational needs, of course, claim first attention and the village people have been generous in their contributions in this respect. In 1952, they made gifts of 318 primary and middle schools to the Prime Minister on his birthday. The number of such gifts has since increased and in 1953 the number of schools donated was 832 and in 1954 it was 953. In addition gifts of 2,587 acres and 5,314 acres of land were made in the years 1953 and 1954 respectively, the land to be utilised for the construction of buildings for schools or for other purposes concerned with child welfare.



DUTY CONQUERED DEATH.

So magnificent was his heroism that Death who came in the shape of water and weeds had to give way meekly.

for fear of being caught in the weeds. The Head Constable with rare presence of mind jumped into the water and rescued the person by releasing him from the weeds. After rendering first aid, he took him to the General Hospital and got him admitted. The next day the patient was discharged hale and healthy.

Reports from different States show that, apart from the provision of schools recreational parks have been constructed in a number of Community Project areas and clubs have been organized where, against the background of development work, children are taught the ideals of community life and co-operative effort and are encouraged to cultivate the habit of "learning by doing". The clubs aim at all-round development of the child, keeping in view his future role as a patriot and a useful member of the village community.

During the last two years the villages in Community Project areas have also made substantial contributions for the provision of libraries and sports equipment for children. In 1953, the total amount given was Rs. 86,837 and in 1954, it came to Rs. 1,30,440.



ECCE HOMO! Here lies the saviour of this land and the miraculous greatness of the century. The members of the Polish Cultural Delegation at Rajghat.

Books.

Guides to Gandhian World

The Navajivan Publishing House, Ahmedabad, has been bringing out since a long time past a series of cheaply priced books explaining the various aspects of Mahatma Gandhi's life and philosophy. There cannot be two opinions as regards the usefulness of these publications. In the troubled world of to-day what is generally described as the Gandhian approach is gaining widespread support both in the West and the East as the best means of solving the vexed problems that face humanity. Consequently, a close study of Mahatma Gandhi's life and philosophy is becoming increasingly popular in many countries. This should be more so in India for more than one reason. India is the accredited exponent of Gandhian philosophy and it therefore behoves every citizen of this country

to make himself thoroughly familiar with this branch of knowledge. It is with this philosophy that brought India her freedom and it is this philosophy that has to help her in the future also to solve her numerous internal problems. Hence, it is very essential for her citizens to imbibe thoroughly the teachings of the Father of the Nation. No doubt there are many books about Mahatma Gandhi's life and philosophy but there are few which have been brought out in a cheap and handy fashion as the Navajivan Publishing House is doing. Thus these publications have come within the easy reach of all classes of people and it is to be hoped that the mass of people will avail themselves of these informative publications. In this connection, a suggestion may be ventured. The

translation of these publications into all the regional languages is a desideratum if mass knowledge of Mahatma's life and teachings is to be widely and speedily disseminated.

1. GANDHIJI'S FIRST STRUGGLE IN INDIA. By P. C. RAY CHAUDHARI. Price Rs. 2.

The book deals with Gandhi's struggle on behalf of the peasants of Champaran in Bihar, who had been groaning under the tyranny and injustice of the Indigo planters there. The Champaran struggle brought into prominence the rare qualities of Mahatma's leadership. Mahatma did not belong to Bihar; yet, when he went there for the first time, the people

MADRAS INFORMATION

were impressed by the pains he took and the sacrifices he made to promote the cause of the innocent peasants. His example proved an unfailing source of inspiration to many of the leaders then and later. The fearless attitude which he took towards the arbitrary authority of the Government and the brutality of the Indigo planters had an almost electric effect on the masses in that they who till then had been oppressed by fear of authority shed their fear overnight and lined up with Mahatmaji to achieve their liberation. It has been rightly said that the seed of Indian Swaraj was sown in Champaran. It demonstrated Gandhiji's basic principles in action.

The book is written in simple language and is interesting reading. The author has taken pains to give an authentic narration of events. It is also well documented the author having used original documents from the archives of the Bihar Government.

2. THE STORY OF MY LIFE.
By M. K. GANDHI. Abridged and simplified with topics for essays by BHARATHAN KUMARAPPA. Price Rs. 1-8-0.

Carlyle said that history is philosophy teaching by examples. From time immemorial, lives of great men have been a source of inspiration and have provided stimulus to the rest of mankind. The poet sang :

"Lives of great men reminds us
We can make our lives sublime."

This is more true of Mahatmaji's life who occupies a unique position among the great men of the world. The present publication is an abridgement of Mahatmaji's autobiography, which runs to 1,000 pages and is mainly intended for the school-going population. Matters which are not likely to be of interest to students have been omitted and the language has been simplified wherever possible. Topics for essays and discussion have been suggested at the end of most of the chapters. Another useful feature lies in the grammar exercises available at the end of the book. These exercises are well graded and proceed on a plan so as to cover the whole syllabus in formal grammar prescribed for the classes for which this little book has been designed.

The book will certainly be useful not only to students but also to adults who can gain without much difficulty an intimate knowledge of the essential principles that guided the life of the Father of the Nation.

3. KHADI. By BHARATHAN KUMARAPPA. Price Rs. 3.

Khadi is described as the livery of Indian freedom. Actually it is something more than that. Some people have a tendency to think that Gandhiji's movement for reviving hand-spinning was solely dictated by political motives. This is not wholly correct. Gandhiji wanted our people to utilise hand-spinning to enable them to shake off their inertia and to develop a sense of self-reliance. Obviously, mill cloth cannot do this. It is Khadi only which can teach our village population to depend on their own efforts to improve their lot and thus learn the first lesson in real independence. Hence Khadi had not only an economic significance but also a great cultural or psychological value. Again Gandhi thought that, in a country like India where people shunned manual labour and thought it degrading—hand-spinning when universalised, would teach our population the dignity of labour.

Thirdly, the caste system combined with the system of education which obtained under the British regime called into being a big gulf between the rich and the poor, and the educated and the uneducated. If hand-spinning were carried on by all, this gulf would be bridged and a bond of unity between the classes and masses and between all castes and creeds would be forged anew. Gandhiji also thought that the decentralisation of industries was necessary as centralisation thereof led to imperialism, international strife and war. And hand-spinning was an attempt to promote decentralisation and to ensure the economic independence and liberty of the common man.

Gandhiji started his movement for Khadi in 1918. His emphasis at first was on Khadi as providing relief to the poverty-stricken masses of this country. But one finds a change in the emphasis somewhere about 1935 when he began insisting on Khadi for villagers, own use rather than merely for sale to others.

Since then until his death, the encouragement of Khadi was almost one of the major pre-occupations of Mahatmaji. He wrote and spoke much on Khadi and the present publication includes important speeches, writings and conversations on the subject. According to the Editor, the volume has been compiled keeping in view the needs of the Khadi workers and those of students qualifying for village work. But others also can find in this book ample light on Mahatmaji's views on national reconstruction and the place which hand-spinning and hand-weaving should occupy in any programme designed to improve the condition of the rural folk.

All the three books are published by Navajivan Publishing House, Ahmedabad.

—THOMAS K. GEORGE.

(Continued from page 27)

The Union Government has also established a Rural Housing Cell which prepares designs suitable for different rural areas of the country, keeping in view local building materials and regional climatic conditions. The plans drawn up by this cell are passed on to the particular areas for which they are intended through the Community Projects Administration. The latter, with its administrative and technical staff, encourages the villagers to adopt the designs.

Low-Income Group Housing Grants

The Union Government have sanctioned Rs. 21.08 crores up to December 1955 as loans to various State Governments under the Low-Income Group Housing Scheme. Of this amount, Rs. 6.07 crores have been disbursed.

During December last year, an additional loan allocation of Rs. 33 lakhs was made to the Madras Government, a sum of Rs. 84 lakhs was disbursed to four State Governments—Rs. 50 lakhs to Madhya Pradesh, Rs. 25 lakhs to PEPUSU, Rs. 5 lakhs to Uttar Pradesh and Rs. 4 lakhs to Madras.

A.I.R., Tiruchi—Rural Programmes for April

Sunday, 1st April 1956—

Dry-Farming—Discussion.
Grama Kalakshepa Mandapathil : ('Shri Andal'—Musical discourse.)
Market rates and water level readings.
Topical discussion ; weather report.

Monday, 2nd April 1956—

Yoke-gall—Discussion.
Folk Art : Kuravan Kurathi Darkkam.
Market rates and water level readings.
Topical discussion ; weather report.

Tuesday, 3rd April 1956—

Udai Alankaram (1) Nool Adai ; Musical feature.
Farm Forum ; Discussion.
Folk songs.
Market rates and water level readings.
Topical discussion ; weather report.

Wednesday, 4th April 1956—

Listeners' Letter.
Poocharam.
Kashmir Lakes—Discussion.
Market rates and water level readings.
Topical discussion ; weather report.

Thursday, 5th April 1956—

Ghana Chuvadi ; Isai Nikazhchi.
Farm Forum—Discussion.
Folk Art ; Udukkadi Kathai.
Market rates and water level readings.
Topical discussion ; weather report.

Friday, 6th April 1956—

Appakkara Angayee (1) Serial Sketch.
Irulil Oli ; Serial Feature on Gandhiji's life.
Namadu Dittam (Second Five-Year Plan) (1) Food : Discussion.
Market rates and water level readings.
Topical discussion ; weather report.

Saturday, 7th April 1956—

Desa Nalam Peruka—Song.
Mudiyor Kalvi Koodam Tirukkural : Vehamai (Kural Nos. 177 and 178).
Kalai Malarndidum rojave—Song.
'Feed your cows and drink more milk'—Talk in Tamil arranged by the Department of Animal Husbandry.



The Inter-University Debating Competition held under the auspices of All-India Radio as part of their Radio Week programme at New Delhi on March 1, 1956. This Inter-University Debate in English, which was open to all the Universities in India, was instituted by A.I.R. in November 1954, as part of the special programmes arranged during the 'Radio Month'.

Photo shows Dr. B. V. Keekar, Minister for Information and Broadcasting, presenting the trophy to Shri C. K. Thirumalan of the Umaniam University, which annexed the shield for the third year in succession in this competition.

Weekly review of market rates.
Market rates and water level readings.
Topical discussion ; weather report.

Sunday, 8th April 1956—
Palmyrah cultivation : Discussion.
Varna mettu—Folk tunes.
Namakku Vendam (1) Sombal : Serial feature.
Market rates and water level readings.

Topical discussion ; weather report.
Monday, 9th April 1956—
Care of the Cows : Discussion.

Folk Art : Dummy Horse Dance.
Market rates and water level readings.
Topical discussion ; weather report.

Tuesday, 10th April 1956—

Pazhamozhi Pazhaniswami—Sketch.
Suttum Vizhi Chudar : Song.
Farm Forum—Discussion.
Folk songs.
Market rates and water level readings.

Topical discussion ; weather report.

Wednesday, 11th April 1956—

Summer Boils : Discussion.
Poocharam.
Valarum Payir (1) Discussion on First Plan achievements.
Market rates and water level readings.
Topical discussion ; weather report.

Thursday, 12th April 1956—
Pattai Kelungal : Songs on the Plan.

Farm Forum—Discussion.
Valli Kanavan : Play.
Market rates and water level readings.

Topical discussion ; weather report.

Friday, 13th April 1956—

Kavi Arangam :
Theme : 'NAME THUNAI'.
Subjects—
(1) Food (Unavu) : Maran.
(2) Clothing (Udai) : K. C. Thyagarajan.
(3) Housing (Veedu) : M. Viswanathan.
(4) Education (Kalvi) : Thuraivan.
(5) Health (Sukhadaram) : N. Raghavan.
(6) Communications (Pokkavarathu) : N. Vasudev.

Market rates and water level readings.

Topical discussion ; weather report

Saturday, 14th April 1956—

Devi Parvathi : Song.
Mudiyor Kalvi Koodam : Tirukkural : Vehamai (Kural Nos. 179 and 180).
Vedam Padiya Jyothi : Song.
Cottage Industries : Toy-making—Interview.

Weekly review of market rates.
Market rates and water level readings.
Topical discussion; weather report.

Sunday, 15th April 1956.

Fruit-growing : Discussion.
Varna mettu : Folk tunes.
Gramathu Machan (1) Serial sketch.
Market rates and water level readings.
Topical discussion ; weather report.

Monday, 16th April 1956—

Feeding the goats : Discussion.
Grama Nataka Sabhaiyil : 'Nagavalli'—Play by N. Raghavan.
Market rates and water level readings.
Topical discussion ; weather report.

Tuesday, 17th April 1956—

Avarukku Ivar (1) Pichaikkara Dampathigal : Serial sketch.
Kadaigal Solli—Song.
Farm Forum : Discussion in Tamil.
Folk songs.
Market rates and water level readings.
Topical discussion ; weather report.

Wednesday, 18th April 1956—

Listeners' Letters.
Poocharam.
Mittai Tayarippu—Discussion.
Market rates and water level readings.
Topical discussion ; weather report.

Thursday, 19th April 1956—

Farm Forum—Discussion.
'Raman Pirandan'—Musical discourse.
Market rates and water level readings.
Topical discussion ; weather report.

Friday, 20th April 1956—

Gopura Bommai—Sketch.
Irulil oli—Serial feature on Gandhiji's life.
Namadu Dittam (2) Clothing : Discussion.
Market rates and water level readings.
Topical discussion ; weather report.

Saturday, 21st April 1956.

Thikkutheryatha Kattil—Song.
Mudiyor Kalvi Koodam : Tirukkural—Purankooramai (Kural Nos. 181 and 182).
Tamizhnadu ulagodu—Song.
'Oil and Wick' : Discussion in Tamil arranged by the Director of Agriculture, Government of Madras.
Weekly review of market rates.
Market rates and water level readings.
Topical discussion ; weather report.

Sunday, 22nd April 1956—

Water-divining : Discussion.

Grama Siruvargal : Feature on the Five Year Plan with rural children participating.

Market rates and water level readings.

Topical discussion ; weather report.

Monday, 23rd April 1956—

Rinderpest in Cattle : Discussion.
Folk art : Lavani.
Market rates and water level readings.
Topical discussion ; weather report.

Tuesday, 24th April 1956—

Murai Mappillai—Sketch.
Kallinut-rutherai—Song.
Farm Forum—Discussion.
Folk songs.
Market rates and water level readings.
Topical discussion ; weather report.

Wednesday, 25th April 1956—

Maternity Welfare : Ante-natal care : Discussion.
Poocharam.
Valarum Payir (2) Discussion.
Market rates and water level readings.
Topical discussion : weather report.

Thursday, 26th April 1956—

Tudippadalgal.
Farm Forum—Discussion.
Gramappattum Katchiyum—Musical feature.
Market rates and water level readings.
Topical discussion ; weather report.

Friday, 27th April 1956—

Folk song lesson.
The Village Women's Forum : Discussion.
Kummipadalgal.
Grama Padasalaiyil : Naladiar.
Market rates and water level readings.
Topical discussion ; weather report.

Saturday, 28th April 1956—

Valluvar Thanthathirumurai—Song.
Mudiyor Kalvi Koodam : Tirukkural—Purankooramai (Kural Nos. 183 and 184).
Muttum Pavalamum—Song.
Cottage industry (2) Bread-making : Interview.

Weekly review of market rates.
Market rates and water level readings.
Topical discussion ; weather report.

Sunday, 29th April 1956—

Grama Panchayat : 'Iru Thara Vazhakku'—by N. Vasudev.
Varna Mettu.
Market rates and water level readings.
Topical discussion ; weather report.

Monday, 30th April 1956—

Fish-rearing : Discussion.
Folk Art : Villupattu—Onre Kulam.
Market rates and water level readings.
Topical discussion ; weather report.

(Continued from page 10)

1949 the Collegiate Teachers' Certificate Course. Another important landmark in the history of Teacher Education was the reorganisation of the B.T. Degree Course in 1950 to suit the 1948 S.S.L.C. scheme. In 1952 the Collegiate Certificate Course in the College was affiliated to the Madras University and this course is now known as the Shortend B.T. Course. The M.Ed. class in Educational Administration was introduced in the college in 1953. Twelve additional class rooms for the Kindergarten Section and Model High School Section were constructed in 1954 to meet the increased strength. At present, there are eight sections in the College :

1. The Regular B.T. Class.
2. The Shortend B.T. Class.
3. The Tamil Pandits' Training Class.
4. The M.Ed. Class in Educational Administration.
5. The Model High School.
6. The Kindergarten Section with Nursery Classes.
7. The Craft Instructors' Class and
8. The Free Adult Night School.

The strength of the College, today, is as follows :—

Regular B.T. Class	143
Shortend B.T. Class	29
M.Ed. Class in Educational Administration.	3
Pandits' Training Class	46
Craft Instructors' Class	44
Model High School	770
Kindergarten Section	552
Nursery Section	93
Free Adult Night School	25

There are 19 members on the staff of the College department, 47 on the staff of the High School, 23 on the staff of the Kindergarten section and 11 on the staff of the Craft Instructors' section.

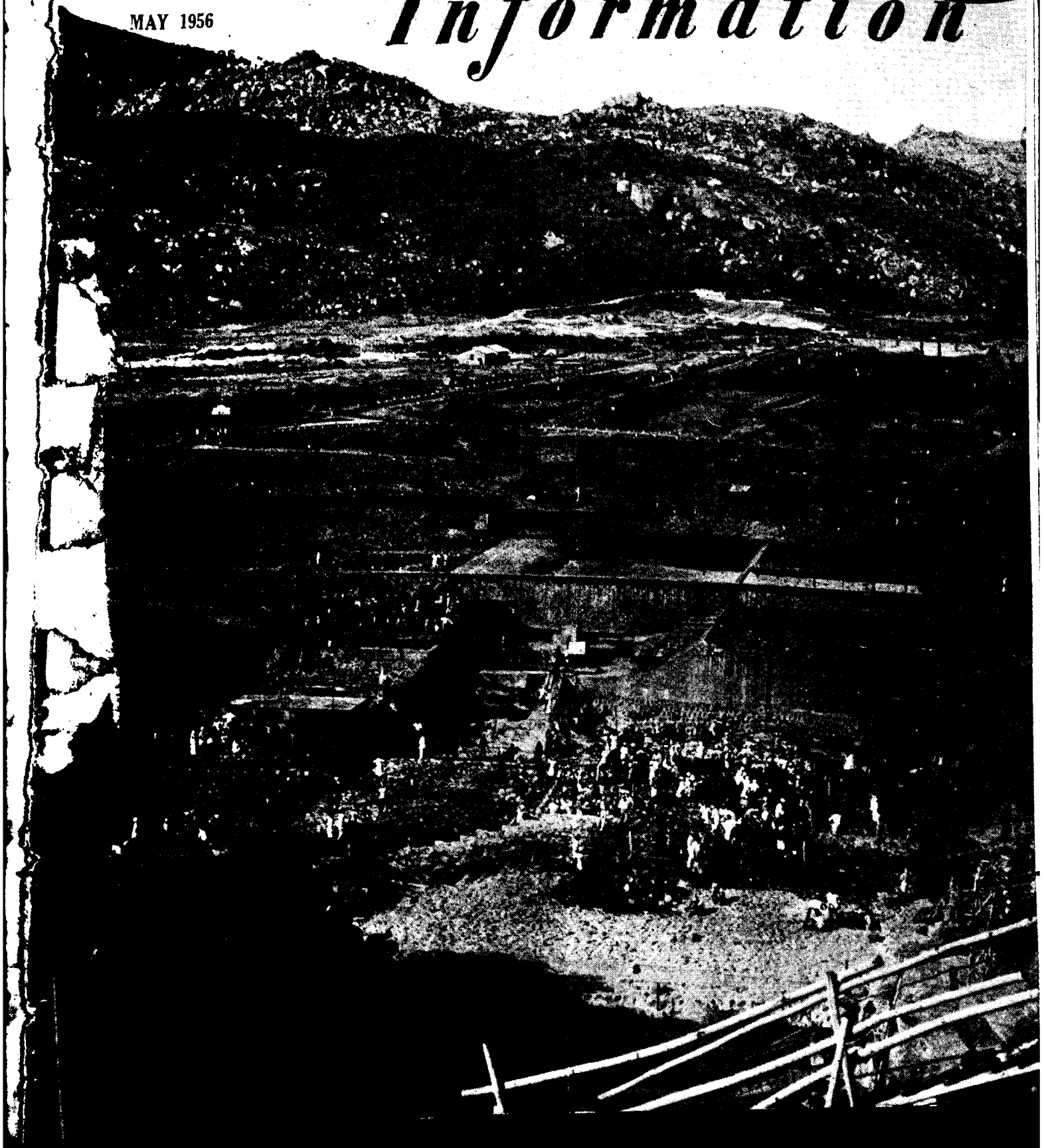
This is the brief history of the College. The growth of this college was continuous and steady. None of the things mentioned before could have been achieved without the services of the many able men who laboured there during the past hundred years.



MAY 1956

M A D R A S

Information



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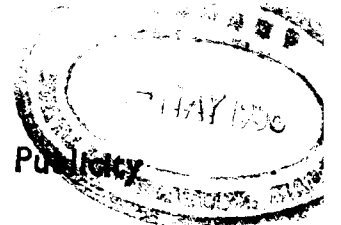
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(1) Protracted Water-Supply Scheme under the Local Development Scheme in Lalpet, Chidambaram, was opened by Sri Bhaktavatsalam, Minister for Agriculture. (2) A view of the over-head tank. (3) and (4) Minister inspecting a bridge under construction at Chidambaram. (5) First Krishnagiri Taluk Harijan Conference at Barur; Sri B. Parameswaran, Minister for Harijan Welfare, is seen addressing the Conference. (6) A mass-tree-planting campaign at Vallampadugai village. Agriculture Minister inaugurating the campaign by planting a tree. (7) Distribution of seedlings to the villagers.

Madras Information



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"WE SEEK TO SERVE AND NOT TO COMPETE"

May 1956

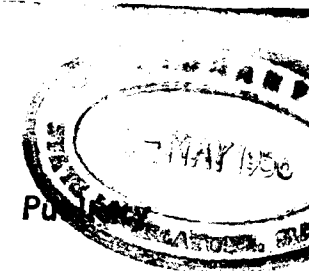
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Cover page: Dam at Krishnagiri—under construction.

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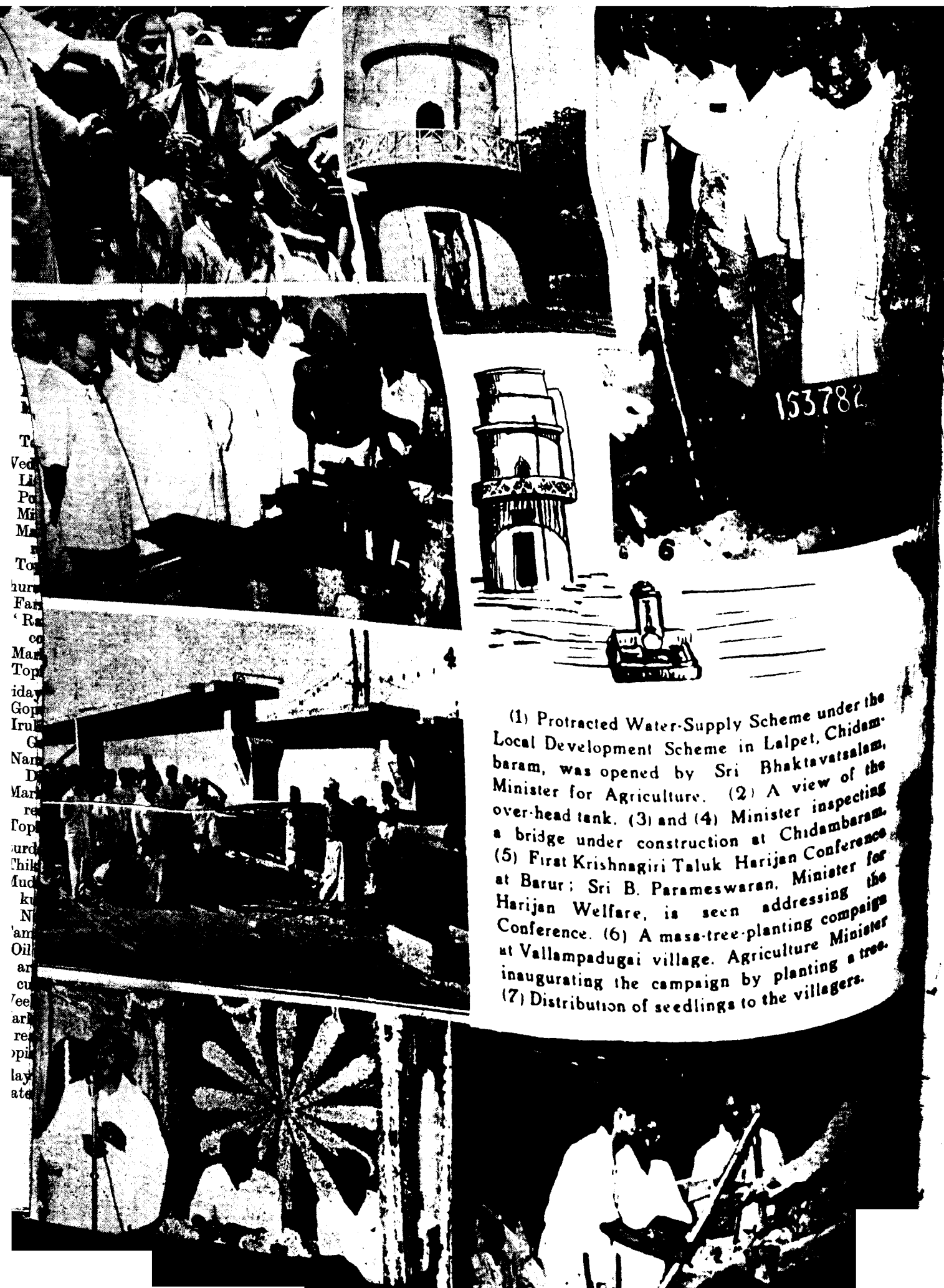
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Shri Sri Prakasa unveiled a Plaque in front of the cell in Vellore Jail where Sri C. Rajagopalachari was confined in 1921-22.

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Madras State Poultry Show and Exhibition

The Madras State Poultry Show and Exhibition, first of its kind to be ventured upon a Statewide basis, was held a few weeks back at the Agri-Horticultural grounds, Teynampet, Madras. The Government of Madras mooted the idea, the Department of Animal Husbandry took it up with alacrity and the result was the grand, successful and highly utilitarian Poultry Show eagerly and enthusiastically participated and witnessed by the poultry-minded public of the State.

In the exhibition stalls, posters, coloured photographs, water-colour paintings, models and materials of the Animal Husbandry Department, covering all aspects of the Poultry Industry were put up. In addition sera, vaccines and pathological specimens of poultry diseases from the Institute of Veterinary Preventive Medicine, Ranipet, were also exhibited. Coloured paintings of the important poultry breed, specially prepared, were also put on the exhibition. A very interesting exhibit which attracted the attention of everybody was the method of transport of day-old chicks by plane with live day-old chicks in it, kindly prepared by the Gemini Studios. The Government Milk Factory also took part by displaying the exhibits connected with the preparation of toned milk. The following stalls

exhibited their products and materials pertaining to the poultry industry:—

- (1) Imperial Chemical Industries, Limited, who displayed their Veterinary products of the poultry industry.
- (2) May & Baker, Limited, who displayed their Veterinary products pertaining to the poultry industry.
- (3) The Medico Agencies and General Traders put up poultry equipments and other medical products.
- (4) The American Arcot Mission, Katpadi, exhibited their poultry equipments, charts, posters, etc., on poultry.

Special arrangements were made for the proper view of the show birds brought for competition, by constructing raised exhibition runs. Since a very large record number of birds were received, additional provision of port-

able runs and even open fixed runs had to be constructed. There was a heavy rush of exhibits and to cope with the rush more than one admission booth was opened and birds were admitted even as late as 1-30 p.m. on the day.

The opening ceremony was performed by the Committee-President Sri P. T. Rajan, Bar.-at-Law. Sri P. T. Rajan addressed the gathering and dwelt on the importance of poultry industry in the nation's economy. He went round the exhibition, appreciated the show birds and the excellent arrangements made.

Judging commenced at 3 p.m. Officers of the Animal Husbandry Department, including the two Deputy Directors, acted as Judges. The Championship classes were kindly judged by the Head of the Poultry Section of the Indian Veterinary Research Institute of the Government of India.

Four hundred and fourteen birds comprising of eleven classes of breeds like the White Leghorn, Rhode Island Red, Black Minorca, New Hampshire, Australop, Orpington, Light Sussex, Barred Plymouth Rock, Ancona, Desi and Graded, entered for the competition and the quality of the birds in general was very good. Another interesting feature was the exhibition and competition of birds specially brought from the Block Development and National Extension Service Areas. Another feature worthy of mention is that a large number of birds from far-flung places like Bangalore, Salem, Madurai, Katpadi, Tiruchengode, Coimbatore, and other places attended the show thus indicating the interest and response of the Poultry public of the State.

Forty-one silver cups and 47 silver medals, all engraved, were purchased at a cost of Rs. 531-11-9 for distribution as prizes. In addition to these, four special cups were donated.



The First Madras State Poultry Show presided over by Sri M. Baktavatsalam, Minister for Agriculture, was held at the Agri-Horticultural Society's Gardens. Picture shows: Exhibits are being put in the judging cases.

MADRAS INFORMATION

A public meeting in connection with the poultry show and exhibition was held in the beautifully decorated and flood-lit shamiana in the evening, when the Minister for Agriculture, Hon'ble Sri M. Bakthavatsalam, presided. Sri D. Pattabiraman, Deputy Director of Animal Husbandry (Livestock), in welcoming the Hon'ble Minister and others briefly addressed the gathering on the activities of the Animal Husbandry Department with particular reference to poultry improvement in this State. Then the Head of the Poultry Section, Indian Veterinary Research Institute, who was present on the occasion addressed the gathering on the schemes of the Government of India with reference to poultry development. The Minister for Agriculture addressed the gathering and distributed the prizes. The Minister's speech is as follows :—

I am happy to associate myself with the first Madras State Poultry Show which is being held at the instance of Government in order to draw public attention to the importance of poultry industry not only from the point of view of our rural and domestic economy, but also from that of our national wealth. Therefore when I talk to you to-day, I am not speaking only to the fanciers, the hobbyists and the exhibitionists who have brought their birds for the Show but to the poultry breeder, the general farmer and the backyard breeder who are all interested in this industry. Poultry keeping is an important subsidiary industry and a source of income to a large section of the people. It is a useful occupation to utilize the unused labour and the leisure in the countryside and even women and children could engage themselves in it. While the greatest operational achievement of the First Five-Year Plan is the overcoming of foodgrains shortage, not the least significant of its other achievements through the method of National Extension is the increased interest in poultry breeding. To-day, one of the features of the increased activity in National Extension and Community Development areas is the increased demand for pedigree birds for poultry keeping. The Second Five-Year Plan aims at 20 per cent increase in the production of foodgrains and 25 per cent increase in livestock products like eggs, milk, meat, ghee, etc. The production of such products is bound to become elastic with expected

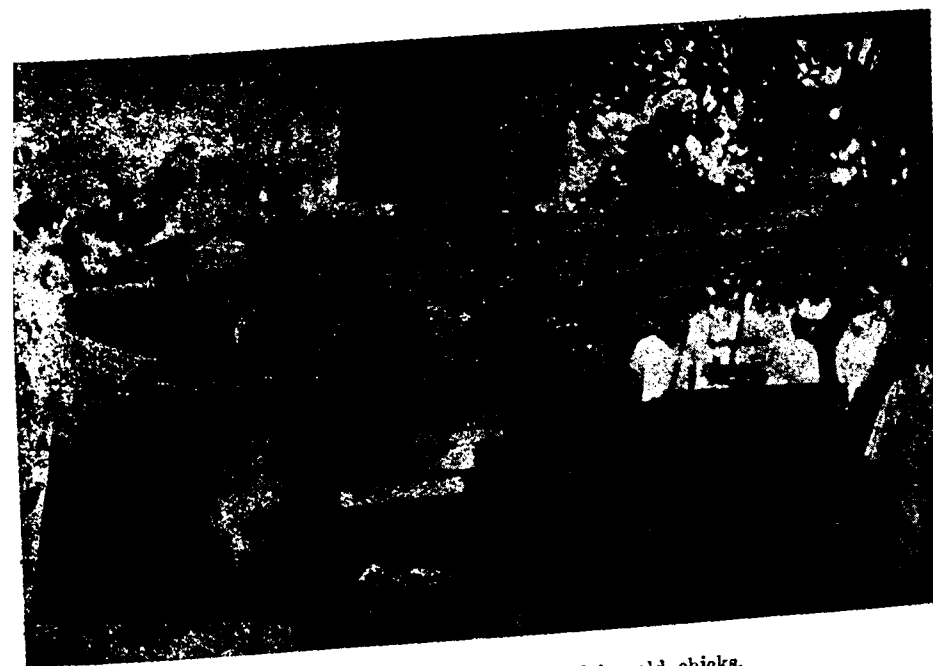


Quality eggs exhibited in the Eggs Competition section.

increase in the per capita income of the people. The poultry industry does not require much capital but involves great care and intelligence and the selective use of breeding material. Breeding factors, especially affecting production, experts say, are early sexual maturity, non-broodiness, intensity and persistence of production. In all these matters, the guidance of scientific experts and extension workers is necessary for the ordinary poultry breeder. But unfortunately not much attention has till recently been paid for extension work in poultry and I believe a Show like this will provide an opportunity to stimulate interest in this matter. A day might come when commercial poultry farming will become a profitable industry, but I am more interested that poultry keeping should become a vogue with the common people in order that the level of national health might be increased, because the egg is the most perfectly balanced food and poultry meat contains the highest protein content. It will be remembered that when egg was rationed in the United Kingdom, poultry keeping by middle class families became very popular. I envisage a stage of development in our State, when every family which requires eggs will maintain a few poultry for their own use and supply eggs and chickens to the towns nearby. In course of time, the poultry keepers could form themselves into a co-operative society and market their eggs. Such societies have been successful in

a few centres in this State, and particularly in Marthandam in Travancore-Cochin State. Even the Madras Co-operative Milk Supply Union under assistance from Government is collecting eggs from its dairy members and is marketing them. The Rural Credit Survey recommends credit for such co-operative enterprises. The Government themselves have two or three big schemes under the Second Five-Year Plan to which I shall refer presently.

In this vast country where agriculture is the primary industry, there is great scope for developing the poultry industry. For, who does not know the value of poultry meat and eggs in the diet? As vital protective food they have been commended and recommended by food experts. This recommendation I need hardly say, is based on nutrition experiments carried on for over a period of years. It has been proved that eggs contain most of the vitamins and a good assortment of mineral elements. There are about 72 millions of fowls in the country as a whole with the fowl population of Madras State standing at about 18 millions. Though by themselves these figures are imposing enough, they could stand no comparison with the corresponding figures in other Western countries. In the United States, for example, the fowl population is about 500 millions. The per capita consumption of eggs per annum in our country is 8, while it is 283 in the Irish Free



Model illustrating air transport of day-old chicks.

State, 260 in Canada, 236 in United States of America, 158 in United Kingdom and 115 in Germany. These figures are a clear indication that even though the fowl population in our country can be considered as a respectable one, the economic value of fowls leaves much to be desired. This is due to, as so many of you may know, to the fact that our indigenous fowls are small-sized, weighing less than 3 pounds per bird. They lay on an average 53 eggs of small size per annum, each egg weighing less than 1½ oz. I may tell you that the position was no better in the United States of America some thirty years back. The average annual production of country hens there was only about 80, but today the flock averages about 150 or above. Nobody need therefore look down upon every thing indigenous as it is the habit in our country. What is needed is careful, detailed and persistent work to produce results. Not a little effort therefore should be spared to increase the body weight of the bird, the size of the egg and above all the egg laying quality of the bird. These can only be done by a slow process either by introducing exotic birds or by adopting selective breeding. You would perhaps wish to know what our State has been doing in the direction of the improvement of poultry industry. From 1928 onwards every effort has been made to develop the poultry industry in the State. A large-scale poultry section was orga-

nised and developed at the Livestock Research Station, Hossur, from the year 1930 with improved breeds of White Leghorn, Rhode Island Red, Black Minorca, etc. In 1940 what is now the Poultry Research Station at Madras was started. In this farm also the pedigree breeds as well as other indigenous variety are maintained. As the demand for poultry and eggs grew, other poultry units were attached to the existing Livestock Farms.

Besides the Farm at Madras, there is another fairly big farm at Cannanore solely devoted to poultry. These farms and units attached to Livestock Farms supply pedigreed birds and eggs to the demonstration units scattered all over the State to demonstrate methods of proper breeding and management in rural areas and also to supply foundation stock of eggs and birds. Poultry development is also going apace under the Rural Welfare Scheme. Malli in Ramanathapuram district and Kinigoli in South Kanara may be mentioned as examples under this Scheme. In the Block Development and National Extension Service areas, poultry development has been given adequate attention and it must be said that these areas have a good record in the development of poultry industry. It is also proposed to import 5,000 day-old chicks from abroad for distribution in Block Development areas.

MADRAS INFORMATION

Private poultry industry has also not been neglected. It may be mentioned that the American Arcot Mission, Katpadi, has been doing very good work in this line for which Government subsidy is being given. A hatchery Scheme is also being located at Katpadi with the financial assistance of the Indian Council of Agricultural Research. Other private breeders are also given assistance wherever found possible.

Under the Second Five-Year Plan a few important schemes have been formulated to develop the poultry industry in Madras State. One Scheme contemplates the establishment of 20 poultry units in Key Village areas to encourage poultry industry at village level. Another aims at encouraging private breeders to take up poultry industry by providing necessary facilities. But by far the most important scheme of poultry development is the one which seeks to establish 25 poultry units in National Extension Service and Community Development Blocks for rearing exotic breeds to form a nucleus for poultry expansion. This is sponsored by the Government of India themselves and it aims at intensive developmental work in the poultry in compact areas through the distribution of imported baby chicks and through advice, propaganda, demonstration and other developmental measures required for the rapid development of poultry in India. Under the Second Plan, the ideal is to achieve the target of one egg per day per person.

How far this target could be achieved will depend not only upon the willing co-operation of those interested in poultry development but also upon the vigour with which poultry schemes are executed. Poultry industry is, it is well known, a precarious one, in that epidemics and diseases frequently visit poultry units and wipe out whole flocks sometimes. Disease control is therefore a primary factor which goes a long way towards success in this line. It is here that the Animal Husbandry Department may give much technical guidance and be of help. It is well known that Ranikhet disease is effectively controlled by preventive inoculation. But there are insidious diseases like avian leucosis, roup, etc., which depend on environmental hygiene. Much educative propaganda has therefore to be done by the Animal Husbandry Department and the poultry



First Prize Winner among Black Minorca Cocks. Owner Sri P. A. Ramaswami Gounder of Malhur.

difficult as household management and is a good training ground in home economics. As Agriculture Minister, I am interested in developing this industry to contribute to the health and income of the large masses of our people.

I am glad that the response to this Show has been successful and I must congratulate all those who have organised it and all those who have sent their birds for the competition and all those who have contributed to the Exhibition. I must particularly thank all those non-official bodies and gentlemen who have agreed to serve on the Committee. Let me close by expressing the hope that the enthusiasm generated by this Show will be sustained and canalised in a tangible programme of work for the speedy development of this rural industry."



Championship for the Rhode Island Red Cock. Owner P. C. Velu of Perambur.

keepers should be ready to receive such advice and act on it to their own benefit. Disease-resistant breeds have also to be evolved and proper feeding schedules should be adopted. In this connection I would like to tell you that Madras State was the first to import day-old-chicks from the United Kingdom last year and distribute them as pullets after sometime. I am glad to know that these birds have thrived very well and the success of further consignments is encouraging. I am also told that the evolution of a high yielding strain at our Poultry Station called the 'Madras Blue' promises to be successful although the strain is not yet ready for release. Poultry breeding is no doubt a science but is more an art. Almost every breeder can contribute to the sum-total of the knowledge on the subject. It is in this respect that I am glad that a move is afoot to form a Poultry Association. Such an association is to be welcomed as it will help breeders to come together and discuss common problems, exchange ideas and materials. In this context I would particularly suggest to ladies to take interest in poultry keeping and also get children interested in it. Hostels, orphanages, and welfare homes could maintain their own poultry and market the surplus product of eggs and chicks. Poultry rearing is truly called poultry management as it is



Miss Angelo of Madhavaram receiving the Championship Cup from the Agriculture Minister for the best R.I.R. hen.



Shri Sri Prakasa, Governor of Madras, opened a new building for Police Radio Station at Marina, Madras. Picture shows: the Governor, Chief Minister and Inspector-General of Police at the wireless receiving section.

"Prophylaxis for Crime"

SRI J. M. LOBO PRABHU, I.C.S.

Of the dual aspects of my work, as Home Secretary, prevention and punishment of crime, the former has attracted me more. The social value of punishment is small, except to the extent it is also a cause of prevention. Therefore in dealing with punishments, I have always applied my mind to the causes of crime and the means of curing them. One general cause is poverty in which connection it may be mentioned that in 1953, when drought conditions reached their peak in the Madras State, the number of offenders were 60,216 as against 42,842 in the combined Madras and Andhra State in 1945 when the war had brought general prosperity. Another cause is absence of appropriate employment, the devil of finding work for idle hands. The analysis of individual cases, as

of general tendencies seems to show that the offenders knew nothing better to think or do. Murders, which I have to examine in respect of reprieves from hanging, are in a large majority, due to frustration. Similarly people indulge in drinking, cotton betting, quarrelling or loafing, generally to fill up their enforced leisure. Police action, which has been stepped up is not wholly effective, as human nature somehow finds a way to satisfy itself. The basic problem is of the use of leisure. Since no attention is paid to this, people only know the abuse of leisure generally from purveyors who make a comfortable living from it. It is possible to convert the people only along the line of their habits, by rendering innocuous the forms of their indulgence. The

strategy may be considered in respect of the broad classes now prominent for delinquencies, arising from unemployed leisure.

Gymnasium for Children

Children, unfortunately in our country receive less attention than they deserve. Except when they are at school or on work they have to find their own means of employing their time. In 220 villages of Chingleput I set up Children's Gymnasiums, at a cost of Rs. 300 which each drew at least a hundred children, in the hours of the morning and evening. The Madras Corporation has followed my advice and is setting up a children's Gymnasium in each of its 50 Divisions. The Corporation is adding to each Gymnasium, a little covered platform



Shri Sri Prakasa, Governor, presided over the Anniversary celebrations of the Government Senior and Junior Certified schools for Girls.

which can serve for public speaking, dancing and dramatics, a radio which will attract the adult population and a weekly cinema show. The Chief Minister will shortly open these recreation centres, which are expected to make available to the poor, recreation now outside their means. The success of these centres will depend largely on the co-operation of the voluntary workers, who will organize the programmes, and the audiences. For Delinquent Children, a Work House to accommodate 500 has just been started by the Madras City Child Welfare Committee which may serve as a model to other Municipalities.

The Problem of 'Roadside Romeos'

The next age group is of the students. Recently the police have been alerted to look for 'Roadside Romeos', who disgrace themselves in public because they are not provided appropriate opportunities for social life in private. It must be admitted that college boys and girls live separated like animals in a Zoo. With a student population of nearly 20,000 there is not one students club in Madras where boys and girls may meet each other in the right atmosphere. The reasons may be first that no one has thought of the value of social contacts for students during the hours of their leisure, second that accommodation for the purpose was not readily visible

used only occasionally. The idea is the same that our student population should learn to use its leisure itself with respect and restraint, if its education is to be complete.

Need for Amusement Parks

The working classes have leisure and holidays added to them in a measure wholly unknown before. It is not only wasteful but mischievous to leave this time unemployed. At present some find their way to cinemas and coffee hotels. Some others prefer cotton betting and drinking. There are a few who gather to nurse grievances. Many remain at home to quarrel with their families. We cannot fully eliminate gambling. It has been suggested that it may be legalised, as racing is, in a few places, and under methods which allow no cheating and are for the benefit of public purposes. For instance, in the recreation centres, to be opened by the Corporation, Fruit Machines may be allowed to be owned and operated by organisations approved by Government, on the Beach and elsewhere, on open spaces, Amusement Parks, with shops, games of luck and skill may be allowed, a part of the proceeds of the gambling being reserved for public purposes. The idea is that open and controlled facilities like these, will replace the secret and dishonest gambling, which now robs the poor. Amusement Parks,



Children of the Junior Certified schools entertained the audience with folk dances.



Sri S. Parthasarathy Iyengar, Commissioner of Police, distributing the prizes.

a regular feature of other cities in the world, can engage the people now condemned to drinking and betting, in happily shopping sight seeing and taking calculated chances on games of luck and skill. It is for the Corporation or others interested to satisfy Government that such Amusement Parks deserve some relaxation of gambling rules, in the wider interest of diverting the people from worse pursuits.

In respect of their leave, the working classes have not so far been habituated to travel or visit holiday resorts. In the result, leave earned is spent at home in enforced idleness, frequently in quarrels and intrigues. Organised holidays should be considered as a labour ameliorative measure, which employers can jointly provide. In a place like Mahabalipuram the accommodation and catering necessary for a camp of say 500 workers can be easily arranged.

Another important class, is the increasing body of intelligentsia. At present, a few of them may attend the public meetings notified in the Papers, but the greatest number have nothing in the evening to do. Can the Corporation organize in the Napier Park, or other suitable open place, a kind of Hyde Park corner where there may be, orderly public speaking? What may be necessary is first a few small platforms, second a supply of folding chairs to be hired, say at one anna an hour. In the beginning both

Another feature is public entertainment in the open, the spectators paying what they like in the hat taken round. A space could be set apart for this on the Marina. It is possible that even open air cinemas may use it, as the draft Cinema Rules now allow such shows at a licence fee of only Rs. 5. With folding chairs on hire, and the hat taken round for contributions, the takings could be sufficient even without restricting admissions. Democracy in Greece and Rome was integrated with public games. Almost all modern countries have facilities to engage the leisure of the people. Our democracy has to come in line.

These are a few among many suggestions which can be made for better use of our leisure. They deserve each to be fully examined, not only by the authorities, but by the people themselves. It is only when the people are satisfied that any measure is for their benefit, that the authorities can be expected to carry it out. Unfortunately at present the public only reserves criticism for itself, and leaves not only action but also thinking to the authorities. In the matter of the proper use of leisure, not only pleasure but Law and Order are involved. A people happily engaged, are lawfully engaged. Crime arises because of lack of work and play. Recreation is therefore an important prophylactic measure for crime.

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SRI T. P. MEENAKSHISUNDARAM, Chief Professor of Tamil, Presidency College, Madras.

The Taj Mahal is a more artistic wonder of the world, than the Pyramids. It rises high aloft on the dead body of the beloved of an Emperor. The loving symphony rather than a sermon in stone, has become eternally frozen into this mausoleum of white marble, the dead stone vivified and made immortal by art. The Tanjore Gopuram encloses no dead corpse; but it represents the lofty aspiration of another emperor, for something eternal and majestic, sublime, and divine, as the skies in his search for the eternal principles, which he called "ஆடவல்லான்" after Sundarar, by which term this emperor called all his imperial measurements of weights, length and volume. ஆடவல்லான் means the expert in dance, i.e., Nataraja, the King of Dance, dance which is one of the only three arts of the Tamilians; for, the Tamilians divided their arts into three Literature, the art of the mind or thought, Music, the art of the voice or melody and Dance, the art of the body or action.

The Sangam Age

Dance is accompanied by poetry and music; they are inseparable. The Sangam age had its dances and Madhavi was the best exponent of this art. The Sangam poems speak of the Dance of Siva, on the battlefield and on the universal cremation ground. Siva holds in his hand the skull and becomes white with the ashes of the grave, whilst whirling round in his Dance. Behind all this terrific speed and terrible appearance, reminds the author of Kalithokai, is the all embracing love of the eternal Mother of the Universe, to whose tune He dances. Love therefore is the moving force of what might have been mistaken for a devil dance. Karaikkal Ammaiyar, a poetess of Tamilnad, loses herself in this dance of

love on the universal cremation ground, identifying herself in her mystic language, with the ghosts of the grave, the shadows dancing in unison with the Lord on the nocturnal fire of the burning corpses.

The Saivite Nayanmars give expression to their mystic experience and divine vision in the language of mythological stories then current among the people. This language of the Puranas become symbolic in the hands of the Tevaram composers, the language of Puranic mysticism as termed by my friend Dr. Durai Arangaswamy of the Madras University. It is indeed a great revolution in thought.

The Story of Rudra

For what is the story? Siva, the raving Rudra almost like a maniac rushes at the haughty creator Brahma and plucks away one of his five heads with his nail. Lo! the skull sticks on to Rudra's hand. The murder of Brahma—thought it be the head, cries thus for expiation. One has to wipe it away with the overflowing blood of life. Who is capable of that self-sacrifice? Rudra, as a Kapali Vratin living by begging in the grave yard roams yet like a whirlwind all through the three worlds to no purpose, till He meets Vishnu the protector of the universe. The trident pierces through the forehead and Vishnu's life blood fills for once, the skull which therefore becomes loosened from the hands of Siva. Rudra carries the skeleton of Vishnu and the skull of Brahma and still roams a begging. The wives of Rishies become intoxicated with the divine beauty of the Lord and run after him forgetting this world and its laws. The Rishies get enraged and conduct sacrifice from which arise all deadly things ever dreamt of in this world. But the Lord

welcomes them all and adorns Himself with them. The Rishies in the end see that this is none other than the great Divinity and they succumb to him.

Divine Dance

This is the wild story but this is beautified and made to express the divine vision of the mystic seers of Tamil land. The creator is purified; the pride and haughtiness, illfit the creative art which has to lose all its personality and separatism in the universal creative activity. The creator is an artist in a higher sense; for, life itself is an art, and this self-immolation is nevertheless very painful even to the poet and the principle of poetry. It cannot be a mere repression, for if it be that, it is never removed; it peeps up now and then, it ever sticks on to the artists' hand, as it were, to rush into his art even without his knowledge. Tyaga or self-sacrifice—that Love, which according to Tiruvalluvar offers the very bone of life to the beloved—alone can atone for this self-immolation; the conscious effacement of self. The principle of protection is this Love and self-sacrifice. The King's protection is not a life of luxuries and pomposity. It is this life of self-sacrifice where the criminals become dyed, dyed in the very life blood of the King to become pure and innocent. The principle of protection bears the cross and wipes away the sins of the universe. Death—the golgotha—the skull—no longer laughs at us. It loses its terror; it is a doorway which one has to pass through, from one sphere to another. Death becomes the ornament of eternity. Once this is realized and the women folk with their inborn love of motherhood realise this earlier than man. They feel something deeper in this world—far beyond the mundane relationship of husband and wife.

They listen to the inner voice of the Lord; they melt in love; they run after something beyond the five senses and the mind. Their intuition is correct; the Lord runs after their souls begging for their pure love. Their hearts realize the truth and they in their nakedness of soul, run intoxicated after them. The Rishies who are materialistic enough to see only the phenomenon are not blessed with the real vision of Truth. They have not that innocence and love of their wives. Their powers are great, their powers of death, their power of matter but that is powerless before the God of Love—that universal spirit of Truth, Goodness and Beauty. All death and deadly things find their respective place in that divine orchestra. Everything is there vivified and beautified, made whole and perfect, in that Absolute—the harmony of the dance of joy. Thus a blood curdling gruesome story becomes the highest poetry—both symbolic and mystic. The Bhikshatana becomes as it were the Hound of Heavens. The Rishipatnis remind us of the Gopis of Rasalila. The fruition and consummation of all this saga of mysticism is the Divine Dance of Nataraja, when the Lord reveals His inner reality in concrete art to the Rishis "the Seers" whose eyes are now opened. He dances the dance of Joy, the dance eternal, the dance which is the secret of every movement of this universe and beyond of every atom and of every soul. The haughty philosopher and the cruel scientists are thus converted to love and light.

Matter Becomes Motionless

The power of intoxication of science and philosophy is represented as the deadly dance of Kali—the dance of the atomic bomb, if one may use a modern term. When truth dawns on us Kali collapses within herself into the silence of impotence. This is the story of the Lord dancing in the tournament with Kali. The foot of the Lord in His whirling dance goes unconsciously high up in the sky revealing Him in all his naked glory. How can a woman dance like that? Kali the phenomenon the powerful matter and science, is ashamed and becomes motionless. This is another truth of the poetry of Tevaram describing the Dance of the Lord.

Perhaps Nataraja form as it exists at Chidambaram today, is the choicest product of the Pallava age. The dance here is all love and joy. The absolute

is there made to live in concrete form in that bronze of the artist—a greater wonder the world has not seen. Dry philosophy has said that the activity of the world is all but a *lila* or play of the Lord. He plays. But who plays in the world? One whose heart is full and who has no care. Play is the expression of the inner joy and overflowing energy. There in the presence of this Dance in Bronze, we have a vision of the divine activity of joy. Foreigners stand enchanted by this divine vision of something beyond, inexpressible like the song of Keats' Nightingale, a reminder from the absolute beyond words and thought. The Tevaram hymnists get intoxicated at this sight—it is the wealth of wealth, happiness of happiness. Ah! birth in this world is something not to be abhorred but to be welcomed for having a glimpse of this divine beauty and smiling joy. The very pose of the hand is so inviting. Is it not enquiring, when you had come? The sweep of the leg how sweet, how blissful—what more to see in this world. No more the fears of death and Hell! Thus the poets give expression to their joy at the sight of the Lord of Dance and our hearts echo the same words, becoming one with their vision at least for the time being.

The Poses and their Meaning

There are various poses of Nataraja, showing the various stages of the growth and development of the perfect dance of supreme joy in Tillai. There is the demon underneath—the evil principle—the ego. It plays with the serpent of an evolving world symbolised by the extending and expanding hood. Slowly this is trampled down till it becomes thoroughly quiescent, adding another colour to the variegated hues of the dance portrait. This cry of the subdued ego the moaning tune becomes one with the melody of the dance—one with a jarring note. The foot is lifted up in joy and its place slowly rises just from above the demon to the very skies in various forms of the dance. The golden mean is found at Chidambaram—the Kunchitapatha and the baram—the curving—up sweep of the foot—a blissful sight to the devotees. The matlock of hair is found, to start with, tied up as in Kattu-Jatai-Nataraja, but in the end flows out and whirls, in tune with the dance. The whole form becomes a perfect circle—the *pranava* the sound of the vibration of the universe.

Generations of poets have sung this beauty and glory, praying to become one with that dance. Manikka Vachakar, pointed out to this image, as the significance of his poem and with that realisation, he disappeared into that dance. Pattinathar and various poets of Tirumurai sang of His dance. Sekkilar, expounded his Peria Puranam here. In the presence of this dancing form Nandanar was yearning for the glorious sight of this dance, every day, every minute of his life, living in the only hope of seeing Him the next day. He is therefore known as Tirunalaipovar. Finally, the untouchable became greater than the Holy Priests; baptised in the Fire of Love he disappeared in that absolute. Cheraman-Perumal ever contemplating on the feet that dance could not taste a morsel of food before listening to the jingling of the anklet of the dancing foot—a music much more divine and intrinsic, more sweet and blissful than the music of the spheres.

Beatific Vision

Mighty Powers fell at the feet of the Lord. Ravana is said to have sung the Tandavam. Pallavas and Cholas glorified this temple; so, too, the later day Kopperun Cingan and the kings of Vijayanagar.

Philosophers can never forget this vision—an artistic expression of their truth. The Tirukkaliruppadiyar is the name of the philosophical and mystic work, called thus, because the author felt it was, as it were, the stepping stones in front of the temple, leading on to the beatific vision. The great poet and philosopher Umapati Sivam was a priest of this temple, glorified for having freed himself away from the trammels of caste and creed.

Patanjali, the grammarian and the yogi along with Viyagrapada, one who prayed for the feet of a tiger to offer his flowers in worship better, receive their inseparation from this secret Dance of Vibration or Nada and the quintessence of all grammar and yoga. Paniri's Maheswara Sutras are said to be the sounds of the kettle drum in the hands of Nataraja. All art and science, all activity—all is but a reflection of the divine harmony of this Dance. "Yes, Look within," the saints say; "there is the Dance within your heart." May we realise this great truth and become one with it crying "Thy Will be done". (A.I.R., Madras.)

Modern Fishing Vessels in Madras

Under the Indo-U.S. Technical Co-operation Mission Programme, four modern types of fishing vessels have been received in the Madras State in the course of last year. These vessels are intended for the operation of different kinds of fishing gear like set gill net, drift net, trawl net, ring net and purse seine and are provided with modern "aids" to fishing like echo sounder and radio direction finder. These vessels are expected to be engaged in operating the different kinds of modern fishing gear, throughout the coast of Madras State with the object not only of increasing the catches of fish from the sea and demonstrating to the fishermen of the use of the new gear but also of surveying the still unexplored but fishable parts of our seas and finding out new fishing grounds and thus adding to our knowledge of the fishery wealth of the State. When the schemes for the gradual introduction of mechanised boats for fishing included in the Second Five-Year Plan bear fruit, the information gathered by these vessels will be useful to fishermen for seeking new grounds and exploiting the fisheries to the best advantage.

The vessels have recently started work on both the coasts operating nylon bottom nets and trawl nets under the guidance of Mr. G. S. Illugason, F.A.O. Fishery Engineer, now on assignment to this State. A brief description of the boats with photographs is given below.

M.V. "Samudra".—This is a 12-ton fishing vessel 34 feet in length and 11 feet beam and fitted with a 42 H.P. Yanmar diesel engine. An echo sounder is provided on the vessel. There is accommodation for five crew and the insulated fish hold has a capacity of 5 tons. It has storage tanks for 220 gallons of diesel oil and 100 gallons of fresh water.

The vessel was constructed in Japan and received in May last year and is best suited for trawling. It has been

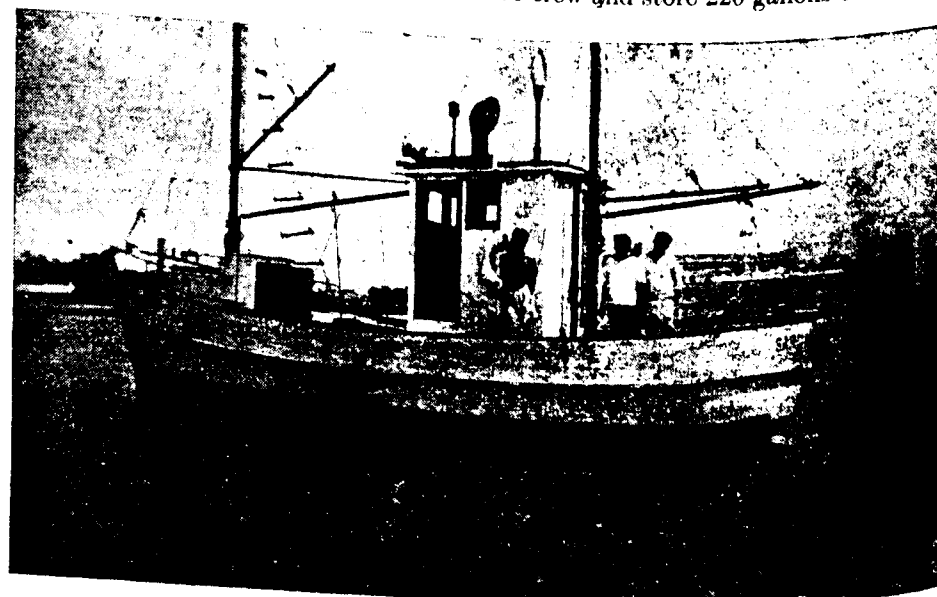


SAMUDRA

engaged in experimental trawling under the guidance of the F.A.O. Expert.

M.V. "Sardinella".—This vessel was also constructed in Japan and received under the American aid. It is 35 feet

in length and 10 feet in breadth, with a 42 H.P. Yanmar diesel engine like the "Samudra". It is provided with an echo sounder and a direction finder, with provision to accommodate five crew and store 220 gallons of diesel



SARDINELLA

oil and 100 gallons of fresh water. The insulated fish hold is 5 tons in capacity. The vessel is best suited for gill netting and a gurdy powered from the engine enables the quick and easy hauling of the nets. The vessel commenced fishing operations under the guidance of the F.A.O. Expert from October last.

M.V. "Meenakshi".—This is an ideal drift net fishing boat of about

on the starboard side of the vessel which enables hauling of nets with considerable ease. The vessel was taken delivery in December last year.

M.V. "Gudjon".—This is the largest of the four vessels and the last received "Gudjon" is a 50-ton purse seine boat of the Californian type constructed in Norway. It is 57 feet long and 16 feet 9 inches beam and has a 215 H. P. Caterpillar diesel engine. An echo

14 tons in capacity. The vessel has a storage capacity for 2,000 gallons of fuel oil, 100 gallons of lubricating oil and 500 gallons of fresh water. There is a turn table at the stern, and this is characteristic of all purse seiners. A power winch is also provided.

The vessel will operate the purse seine net as soon as this special kind of net is received. It has also been made suitable for trawling operations under advice from Mr. Gudjon Illugason, the F.A.O. Expert. Purse seining is a very effective method of catching shoaling fishes like sardines, mackerel, etc. A large quantity of fish can be caught in one haul.

Offences under Companies Act

During the first quarter of the year 1956 ending March 31, 1956, 53 complaints for offences under the various sections of the Indian Companies Act, 1913, were filed by the Registrar of Companies, Madras, in the several courts against 21 companies (some for single offences and others for two or more offences) and 84 officers of those companies, ending in convictions.

Fourteen companies and their officers were fined for defaults in not holding the annual general meetings.

Twenty-three companies and their officers were fined for defaults in not laying the annual balance sheets and profit and loss accounts of the companies before the members in general meetings.

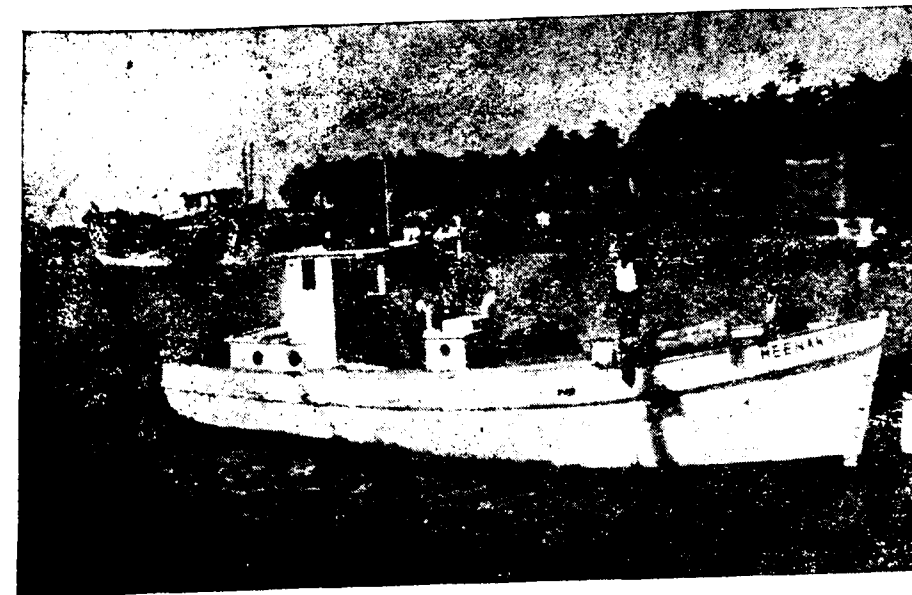
One company was fined for default in not filing the return with the Registrar regarding the change in the situation of the registered office of the company.

One company and its officers were fined for not filing the change in the particulars of the directors of the company.

One company and its officers were fined for failure to file the return of allotments.

Five officers of a company were fined for failure to furnish the information and explanation called for by the Registrar in relation to the returns filed before him.

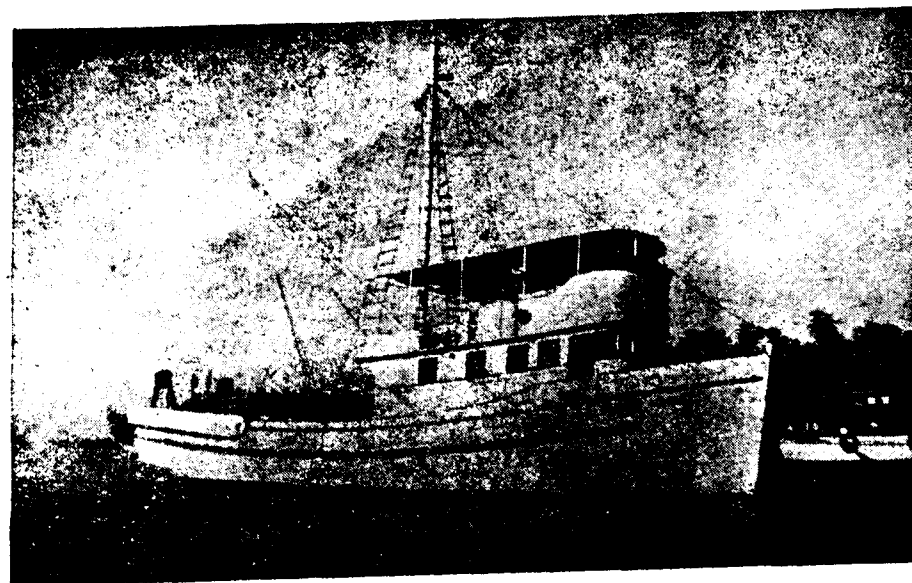
Two liquidators of companies were fined for default in not filing the statement of accounts with respect to the proceedings and position of the liquidation.



MEENAKSHI.

the same dimensions as "Sardinella". It is also provided with echo sounder and insulated fish hold. There is also a power-driven wooden-roller

sounder, direction finder and radio telephone are also provided on this vessel. There is accommodation for eleven crew and the insulated fish hold is



GUDJON



The Second National Convention of Farmers was inaugurated by the President, Dr. Rajendra Prasad, at Talkatora Gardens in New Delhi.

The Second National Convention of Farmers

Delegates visit Reconstruction Centres, Giant Projects, etc.

A special train carrying 693 farmers, including 25 women, from almost all States of India steamed into Kurukshetra railway station at dawn last Saturday. The visitors—delegates to the second National Convention of Farmers held in Delhi during first five days of April—were received by the local farmers and members of Panchayats with music and the traditional Bhangra dance of the Punjab. Many visitors joined in the group dance.

The visit to Thaneshwar Community Project organized by Community Project Administration was meant to provide a get-together for the visiting farmers—among whom were several Krishi Pandits and winners of State crop competitions and the local farmers and Project personnel to exchange experiences, discuss common problems and to enable them to view their problems in the larger countrywide context.

Many devout visiting farmers took this opportunity to have a bath in the sacred Sannihit tank, holy since the days of Mahabharata, and visited ancient temples of Kurukshetra, one of the most sacred places of religious and historical importance.

The day's programme included a discussion forum in which local farmers and several visitors took part. One

point which was emphasised by most speakers from their own experiences was that the Community Project movement had raised their pattern of life and work to a plane which made it richer and more worthwhile.

The one-day visit ended with a cultural programme, including group dances and a film show, in which docu-

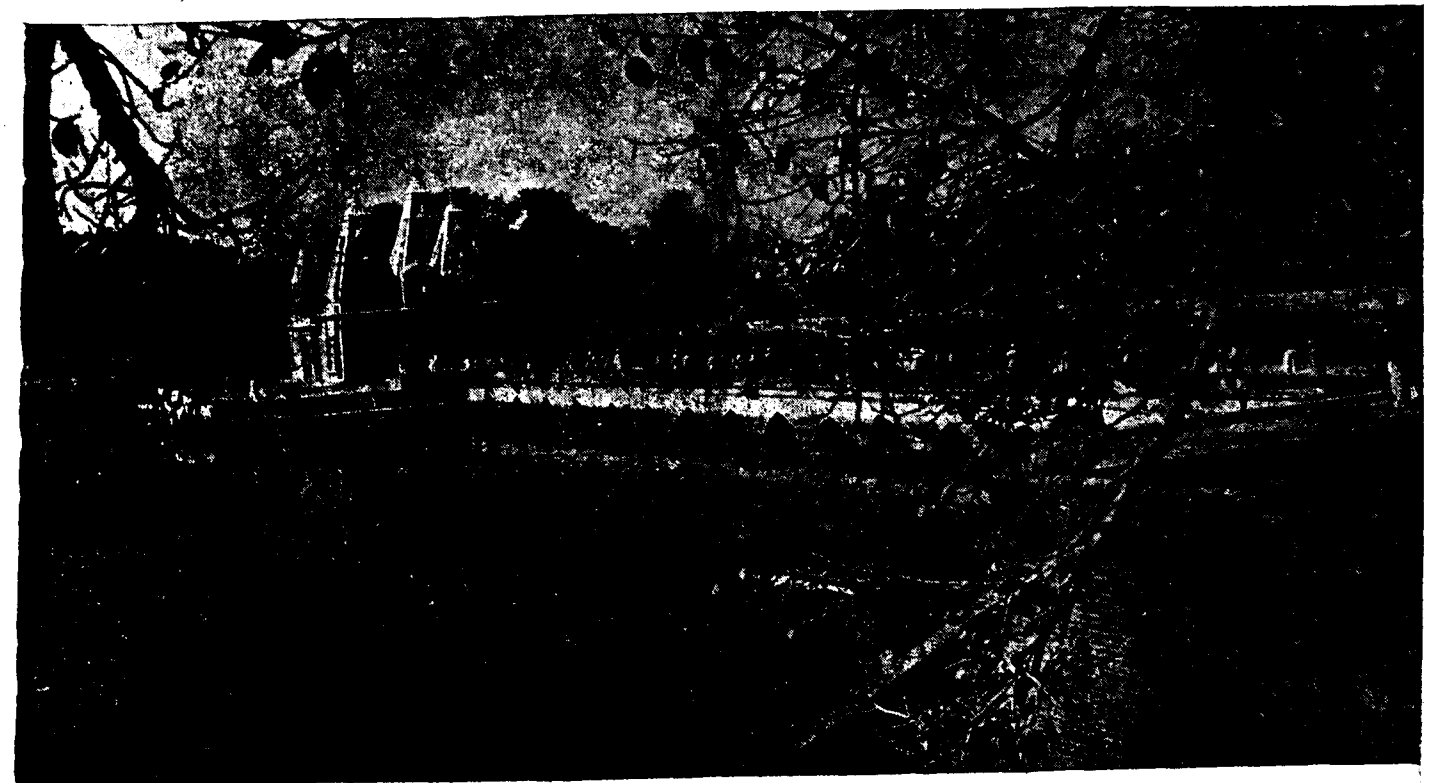
mentary films on aspects of Indian life, culture and development were screened.

The Press Information Bureau of the Union Information and Broadcasting Ministry organised a trip to enable the farmers to see the Giant Bhakra Irrigation and Power Project.

A fleet of buses took them to the Bhakra Dam site where guides and

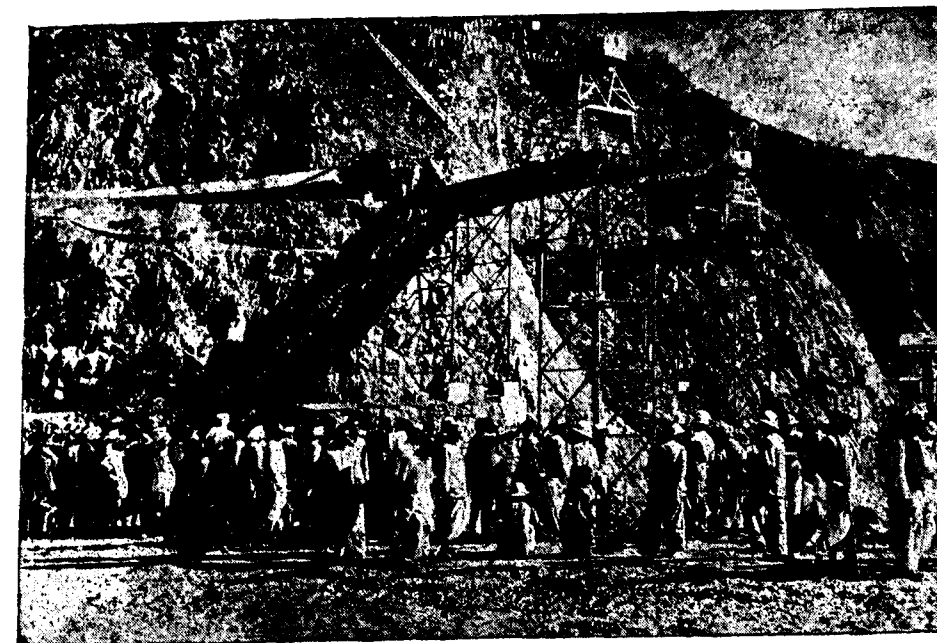


The visiting farmers were received at the Kurukshetra railway station by about 400 local farmers with music and the traditional Bhangra dance of the Punjab. Many visitors joined in the group dance.



Many devout visiting farmers took this opportunity to visit ancient temples of Kurukshetra, one of the most sacred places of India.

Even the most cynical among them went home with a new vision



693 farmers, including 25 women, among whom were Krishi Pandits and winners of State crop competitions, visited Bhakra. A special train-tour was organised by the Press Information Bureau of the Union Ministry of Information and Broadcasting. Many a cynical young farmer went to the Bhakra Dam site in a sceptical mood and came back with a new outlook and vision.

engineers showed them round in batches and explained to them the scope of this Rs. 168 crore irrigation and power project meant to irrigate 10 million acres of land in the Punjab, Pepsu, Rajasthan and Himachal Pradesh, and produce one million K.W. of electricity

Eager farmers—many literate ones among them, equipped with note-book and pencil and a few farm-exchange programme boys even with binoculars—were anxious not to miss anything. They saw, unit by unit, the fully mechanised construction plant established on two big terraces cut into the hill site on the downstream side of the Bhakra gorge. They had a panoramic view of the dam site from the top, and looked down into the foundation pit where giant cranes on trestles are building up the dam which will, in another three years, tower up to 680 feet—the highest straight gravity dam in the world.

The farmers were not only inquisitive about the construction plant and the technique of construction; they asked numerous questions on the



The farmers visited Anand Co-operative Farm to have a first-hand idea how such a farm in the Punjab is run by Punjab farmers.

problems of organisation, co-ordination, supply of materials and funds and, equally important, the social aspects of the project such as labour welfare. Many a cynical young farmer went to the dam site in a sceptical mood and came back with a new outlook and a new vision. Typical of these, to take one example, was 30-year old Chhagan Bhai, a well-to-do educated farmer from a village near Ahmedabad who said: "It is just not true that the Government is doing nothing. Bhakra has proved it to me that India can do things on as grand a scale as any other country in the world."

Reaction of the older generation was typified by 65-year old woman farmer Yamuna Bai from Guttal in Dharwar District who said she was lucky to have come to Bhakra. It was a pilgrimage like she made to Mathura many years back.



The farmers visited Nangal Dam and Ganguwal Power House.

The farmers, later in the evening, visited Nangal Dam and Ganguwal Power House.

Facts and Figures

Production of boot polish in India rose to 10 million tins of 2 oz. each in 1955 from 2.31 million tins in 1950.

The Coal Mines Labour Welfare Fund has so far started 44 adult education centres for providing educational and recreational facilities to adult miners.

India's rice production during 1955-56 is estimated at 23.8 million tons.

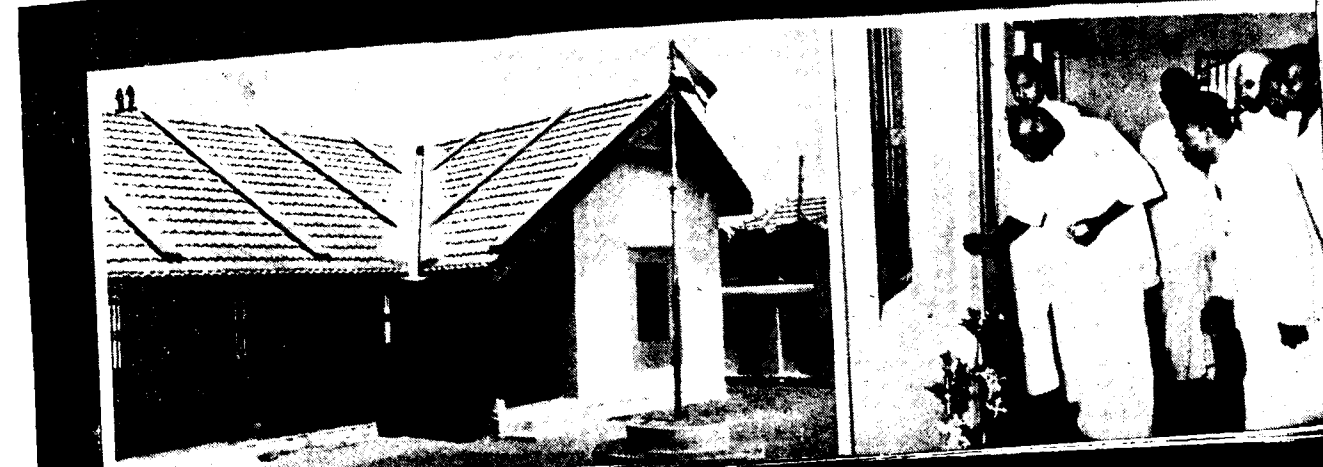
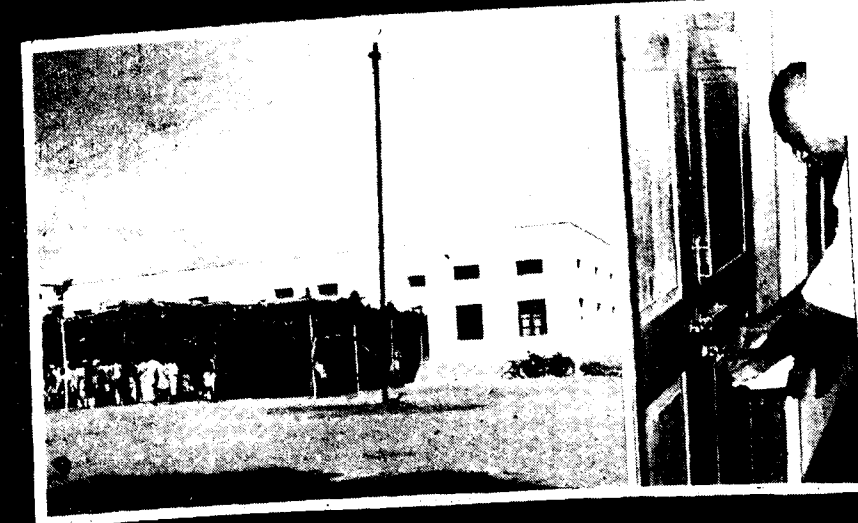
More than 110,000 maunds of ghee were graded in 30 laboratories in India in 1954.

The number of power-looms in India in 1954-55 is estimated at 38,000.

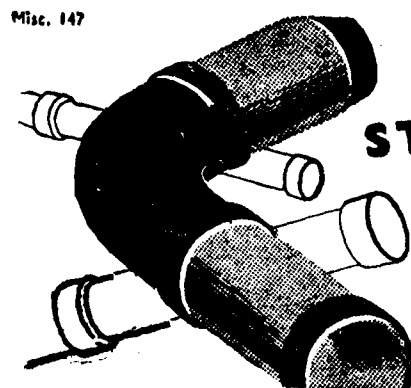


IN SALEM DISTRICT

(2) Public meeting at Salem. (3) Opening Minister amidst school children. (5) The and making representations. (6) Laying pet to be constructed by the Local Weavers' spital declared open by the Chief Minister of handloom bedsheets. Giving away the mmanpet Weavers' Co-operative Society Regional Handloom Design Competition. Hossur Taluk. (11) Hostel for the Harijan



Misc. 147



STONEWARE PIPES SALT-GLAZED

FOR UNDERGROUND DRAINAGE
(A Dalmia Product)

DALMIA CEMENT (BHARAT) LIMITED
DALMAPURAM — DIST. TIRUCHIRAPALLI.



1



2

(1) The Chief Minister chatting with the children of the workers employed in the Krishnagiri Project. (2) Inspecting the progress of the Krishnagiri Project. (3) A pleasant trip to a pleasant function. (4) An unusual guest at a Lambadi wedding ceremony. (5) The Lambadi couple.



3



4



16 D



16 A

LEGISLATORS' HOSTEL DAY CELEBRATIONS

A "Pilgrim" and a "Lady" won the prizes



(Top left) Fancy Dress Competition—Prize winners—The Lady of 2956 (2nd prize Sri P. Ramamurthi), A Pilgrim to Benares (1st prize Shri Sri Prakasa). (Top right) Snake-charmer. (Centre) Tug of war—The Governor's team and the Chief Minister's team. (Bottom left) Prize distribution—Governor giving away the prize to Sri P. Ramamurthi. (Bottom right) Buffet Party.





THE CHIEF MINISTER'S TOUR

(1) Muslim leaders presenting the welcome-address. of an overhead tank at Krishnagiri. (4) The Chief Minister meeting the hill-tribes from Nadiannur meeting the Chief Minister. (5) The Chief Minister laying the foundation-stone for a Weavers' Colony at Ammanur. (6) The Chief Minister inaugurating the Co-operative Society. (7) A view of the Maternity Hospital at Barur. (8) and (10) Appreciating a fine specimen prize for the best handloom design made by the students at a function held at Salem in connection with the (9) Declaring open a high school at Denkenikottai, Students at Namakkal.



Shri Govind Ballabh Pant, Minister for Home Affairs, Government of India, inaugurated the Seminar on 'Rural Reconstruction in India' in New Delhi. The Seminar has been organised in connection with the Second National Convention of Farmers held here from 31st March to 5th April 1956. Photo shows Shri G. B. Pant delivering his inaugural address. On his left is Dr. Panjabrao Deshmukh, Union Agriculture Minister, and President, Farmers' Forum, India.

People's Participation: Pivot of Community Development

Entire State to be covered by N.E.S. in Second Plan Period

SRI M. BHAKTAVATSALAM, Minister for Agriculture.

The Community Development Programme was first launched in this State in 1952-53. Today the Programme is in operation in 4 Community Projects, 24 Community Development Blocks and 38 National Extension Service Blocks covering a population of about 88 lakhs as against a total rural population of 290 lakhs in this State. The National Extension Service Programme will be taken up in 4 Blocks in some of the cyclone-affected areas in the Ramanathapuram district from 1st April 1956 in which Blocks pre-extension work is now being done. Eleven of the National Extension Service Blocks are being converted into Community Development Block from the same date.

The present Budget provides for the setting up of 22 National Extension Service Blocks by October 1956 and another 28 Blocks towards the end of the year for which preliminary work will be done during the Budget year.

During the Second Five-Year Plan, the National Extension Service will be gradually extended to about 315 additional Blocks so as to cover the

entire State by the end of that Plan. Some of the National Extension Service Blocks will also be converted into Community Development Blocks during the period.

As a result of sustained and strenuous efforts, the programme has undergone considerable improvement in the standardisation of methods and procedures. The widely dispersed areas have begun to function in an integrated way and the progress of work in the various blocks has lent itself to close check and supervision. The Collectors of the districts who have been made primarily responsible for the successful implementation of the programme have spared no efforts to improve the tone of the work in the field.

The principal Force behind the Programme

In this arduous and difficult task, the Collectors have been ably supported by the Block and Project Advisory Committees which have been constituted one for each block or project. Apart from the principal district officials, these Advisory Committees include Members of the Legislature,

Members of Local Bodies, and leading social workers. These non-official members have been playing a useful role in stimulating the people's participation in the implementation of this programme. They have assisted in mobilising local opinion in support of this programme, seeking from the people a larger effort for production and social services. They have given valuable assistance in the preparation of the integrated programme for each block and in working it out. In order to promote greater understanding between these members and the officials connected with the programme, this Government have organised a series of Seminars during the current year. Several valuable suggestions were made by the non-official members of these committees regarding the working of the programme.

People's Contribution

Public co-operation and public opinion constitute the principal force and sanction behind the programme. During the past few years, the villagers have responded generously in contributing in kind or in cash or in terms

of labour for the execution of works under this programme. When the scheme was first launched, there were misgivings and suspicions. People in the villages used to ask why they should contribute anything when various departments of the Government were doing work in the villages with Government funds till then and no one asked for free labour or gift of land for a road or a well. It took time for the Community Development staff to make the people aware that it was because people depended wholly on the Government that various amenities were not reaching the villages as needed by them and the secret of getting them was for the villagers to share the burden of contribution and co-operation. When the initial suspicion gave way, the villagers began to clamour for the provision of more and more amenities by offering their quota of contribution and co-operation. Once this tide got started, it steadily grew. From the statistical data available before the Government for the period ending December 1955, it is observed that the total contribution made by villagers in cash, kind or in terms of labour amounted to about Rs. 85 lakhs. We have now reached the stage where, owing to want of funds, fresh works cannot be taken up in certain blocks, although the requisite contribution from the villagers is forthcoming.

Progress—slow, steady and rapid

A programme which is essentially a people's programme and in which the people concerned have a vital part to play naturally takes time to gather momentum. In the initial stages of each block, the expenditure on works shows a slow progress as the people have to mobilise their resources. But once the people have understood the significance of the programme, the progress is rapid and as I have observed above, the funds are soon found insufficient to meet the demand.

But provision for works is only a minor part of the programme. The principal role of the Government is to provide for supplies and services according to a co-ordinated programme. The standard establishment for a National Extension Service Block includes Extension Officers for the three vital subjects affecting rural population, viz., Agriculture, Animal Husbandry and Co-operation. These are assisted

THE WOMEN'S DELEGATION FROM INDONESIA.



A party of women officials and non-officials on a study tour visited Madras recently. The picture shows the delegation with Sri M. Bhaktavatsalam, Minister for Agriculture and Community Development.

by 10 Gramasevaks who are trained multipurpose workers and provide the vital link between the villagers and the various Government departments. The work turned out by these officers cannot be measured in terms of the

cost of their salaries. It can only be measured in terms of the resultant benefit to the people of the area by the extent to which the standard of living of the people of the area is increased.



Sri K. Kamaraj, Chief Minister, declaring open the seven-furlong Tiruvanniyur-Kuppam Road, newly constructed under Local Development Scheme.

The Agriculture Front

Agricultural production is intensified by such means as better varieties of seeds, better control of pests and diseases, prevention of soil erosion, better use of manures and fertilisers, better tools and implements, better systems of cropping, fuller utilisation of land by reclamation of waste lands, etc. A great impetus is given to the formation of co-operatives in these areas to provide ample facilities for credit. In addition, the Government have been giving loans to agriculturists for cultivation and sinking of wells and installation of pumpsets. Every effort is taken to improve the minor and other irrigation sources in the selected blocks. Livestock improvement has also received special attention. A large number of breeding and artificial insemination centres have been started. Poultry breeding and sheep rearing have been specially encouraged. A Deputy Director of Cottage Industries has been appointed to be exclusively in charge of the Cottage Industries. Steps have been taken to provide for as large a measure of increased employment as possible through different village and small scale industries. A special scheme for khadi development is being implemented in Community Development areas and it is expected that the earning capacity of at least a thousand families in each Block will be increased by Rs. 100 per family per

annum and that the consequent increase in the annual earning of the Block will be at least Rs. 1,00,000.

Welfare Items

A systematic effort has been made to provide medical aid to the villagers. Local Fund Dispensaries have been upgraded and grants have been given to them for purchase of medicines, equipment, etc. Maternity and Child Welfare Centres have also been opened wherever necessary. A number of Primary Health Centres has been opened. Special attention is being paid to Rural Water supply. A large number of village roads has been formed and culverts and bridges constructed over waterways so that every village can be reached, as far as possible by vehicular traffic.

A minimum programme of Social Education has been chalked out and is being assiduously followed. The Government have taken on hand the intensification of adult education in the selected areas. The conversion of elementary schools into basic schools is also proceeding satisfactorily. The achievements under the programme have indeed been considerable under various heads.

Any one visiting villages where the schemes are in operation cannot fail to notice the great change in the

attitude of the people there. The people are determined to improve their lot and are prepared to exert their utmost to achieve this end. They are aware that the Community Development Programme is essentially their programme and will assist them to reach their goal.

The Local Development Works Programme was launched during 1953-54 and is implemented in those parts of this State which are not covered by the Community Development Programmes. The expenditure on this scheme is being shared by the Government of India and the beneficiaries on a 50:50 basis. Some concessions are shown in respect of Rural Water supply Works and works intended to benefit mainly the Harijans. In these cases, the State Government meet the balance of contributions.

There has been an amazing response from the public in the matter of execution of these works with the result that the Planning Commission has increased the Grant for the year 1955-56 from Rs. 59.40 lakhs to Rs. 109.40 lakhs. The Grant for 1956-57 has been tentatively put at Rs. 49.45 lakhs. I trust that the response from the public for the execution of these works will be even more encouraging in the coming year than it was before.

Snippets

The per capita generation of electricity in India increased by more than a hundred per cent between 1938 and 1953.

Indian Railways at present carry about 3,600,000 passengers daily as against about 1,450,000 passengers in 1938-39.

Schemes costing Rs. 3.4 crores for the development of inland water transport are proposed to be included in the Second Five-Year Plan.

During 1955-56, 3,558 girl cadets received training at 29 National Cadet Corps (Girls Division) camps.

A scheme for the development of fruit production costing about Rs. 8 to 9 crores has been included in the Second Five-Year Plan.



Sri K. Kamaraj, Chief Minister, addressing the Bhoodan Volunteers' Camp at 'Sarvodaya village,' (Seyyur in Uthiramerur taluk, Chingleput district) on the 5th April 1956.

The Role of Milk Co-operatives in the Second Five-Year Plan

SRI A. PALANIAPPA MUDALIAR, M.A.

Dairying is one of the widely practised subsidiary occupations of the agriculturists in this country. Although we have 186 million heads of cattle—a quarter of the total bovine population of the world—our 'per capita' consumption of milk is the lowest. It is much below even the minimum 'per capita' requirements. Owing to this deficiency, large quantities of dairy products are being imported into this country from abroad at a very heavy cost.

With our fast increasing population on the one hand and the deterioration of cattle on the other, our country's progress towards economic development is bound to be hampered if adequate attention is not paid to this activity.

Madras State has the fifth largest bovine population amongst all States in India. Despite this, the per capita consumption of milk is phenomenally low when compared to other States. The need for intensive planning in this State is, therefore most important and necessary.

Since 95 per cent of the milch cattle live in villages and are owned by the ryots, any plan to tackle the problem set out above, should aim at improving the economic standards of the "cultivator-cum-milk producer", through the improvement of his milch animal. Since the resources of the villager are very limited, practically little can be achieved through his individual effort, especially on the dairy side—which calls for larger investments and greater risks than agricultural activities. The most successful co-ordinated effort in this direction would be the co-operative way of tackling the situation.

Schemes implemented by the Madras State :

This fact has been recognized by our Government and in 1946 a Dairy

Development Officer was appointed to attend to—

Planning, conducting surveys for obtaining data on which dairy development projects might be based ;

Formulation of schemes to—
increase milk production ;

set up organizations for the production, collection, transport and distribution of milk and milk products ;

carry out field investigations in improved and profitable methods of preventing wastages ; and

Execution of approved schemes for the development of the dairy work through advisory services, propaganda and publicity.

The Government sanctioned in 1948 a three-year plan for the purpose of—

Organizing fresh milk supply societies in areas which were not covered by them.

Strengthening and supervising the milk supply co-operatives, and

Providing technical advice and the employment, in three instalments spread over three years, of a staff of 25 Dairy Assistants, 26 Senior Inspectors and 27 Junior Inspectors for the implementation of the scheme.

Progress achieved

When the plan was started, there were 335 Milk Supply Societies and 26 Unions in the Madras Composite State with a total production amounting to 21,739 Madras measures per day. At the end of three years, there were 486 societies and 37 Unions with a total daily production of 29,433 Madras



Sri M. Bhaktavatsalam, Minister for Agriculture, and Sri A. B. Shetty, Minister for Health, inspected the cattle brought during the MORE MILK DAY CELEBRATION.

measures. Government after reviewing the position were pleased to extend the period of the plan by another three years from 15th October 1951.

By the end of September 1953, i.e., after a period of five years from the inception of Dairy Development Scheme, there were in all 41 unions and 725 societies in the Composite Madras State as against 15 Unions and 88 societies about 13 years ago, i.e., as on 30th June 1940. After the separation of the Andhra State, there were 20 unions and 529 societies in Residuary State with a total production of about 37,000 Madras measures per day.

At the time of drawing up of the Second Five-Year Plan, there were 19 milk supply unions and 540 milk supply societies inclusive of those affiliated to the Unions handling 40,000 Madras measures of milk a day.

Second Five-Year Plan

The progress achieved so far by developing milk supply to urban areas has been very encouraging. Under the Second Five-Year Plan, it has been proposed to step up this rate of progress and consolidate the achievements realized so far. For this purpose, schemes have been drawn up under the following heads :—

(i) Development of urban milk supply.

(ii) Installation of pasteurisation plants in the larger co-operative unions.

(iii) Improvements in the Hygienic handling of milk by the Madras Co-operative Milk Supply Union.

(iv) Establishment of salvage farms for dry cattle and

(v) Establishment of cattle breeding co-operative societies.

I. *Development of Urban Milk Supply.*—The scheme drawn up for inclusion under the Second Five-Year Plan aims at increasing the production of milk by the Milk Supply Co-operatives by 10 per cent each year, over the present production, so that by the end of the Plan period the production will be raised from 40,000 Madras Measures a day to 60,000 Madras Measures a day. To achieve this object, it has been proposed to organise 150 new societies during the Plan period on a phased basis. These societies will cover the milk pockets in and around the urban areas and enable the existing unions to pool and market more milk.

With a view to enable the milk societies to augment their production, it is proposed to provide a large amount of Government loans for the purchase of milch animals by members, the amount of such loans being Rs. 12



More Milk Day celebration in Madras. Another scene Sri M. Bhaktavatsalam, Minister for Agriculture, distributing prizes to Sri Kuppaswamy Naidu of Periamet who won five prizes.

lakhs in the last year as against Rs. 8 lakhs now. These loans will increase the quality and number of the milch cattle and also help scientific collection and pooling of milk produced in the villages. To implement the scheme, additional staff, both supervisory and technical, has been provided for. There are at present 549 Milk supply societies and 19 milk supply unions, with the daily average production of 40,150 Madras measures per day.

Quality control.—Side by side with increased production, enforcement of quality is essential. This important factor has not been lost sight of. Provision has been made in the scheme for subsidising the Central Milk Testing Laboratory at Madras under the Control of the Dairy Officer, Madras State, towards the cost of maintenance of equipment.

II. *Installation of pasteurisation plants by the larger co-operative milk supply union.*—In order to preserve milk for longer periods and to increase its keeping quality, pasteurisation is essential. The installation of pasteurisation plants will help co-operative milk supply unions in the State to dispose of profitably the surplus milk available with them. This could also enable the village producer to adjust the milking time more conveniently to the needs of supply. Out of the 19 milk supply unions in the State, the Madras Co-operative Milk Supply Union alone is equipped with a pasteuriser. This union has purchased lands in Kodambakkam to set up another factory. With these steps, the Union could easily double its present production. It is proposed to equip 9 of the other larger unions with pasteurisation plants during the plan period with suitable financial assistance from the Government.

III. *Improvements in the hygienic handling of milk by the Madras Co-operative Milk Supply Union.*—The Madras Co-operative Milk Supply Union has been the pioneer in the field of urban milk supply in the State and the lead given by it has attracted the attention of co-operatives all over India, and many are striving to emulate its example. The union is at present handling about 30,000 lb. of fluid milk which is no small achievement. The Expert Committee constituted under the Chairmanship of Dr. Lakshmanaswami

Mudaliar made certain recommendations to improve the hygiene of milk handling by the Union. The following steps are proposed to be taken to implement the various recommendations of the Expert Committee at a total cost of Rs. 5 lakhs. :—

(i) Seventy-five feeder societies of the Madras Milk Supply Union will have hygienic cattle sheds at a cost of Rs. 4,000 each for common milking.

(ii) The vans that now attend to collection and distribution of milk will be got insulated and refrigerated.

(iii) A can washing and sterilization machine will be installed to reduce, if not totally eliminate, the bacterial flora that remains behind in the churns at present, despite the best supervision and cleaning by manual labour. This measure will reduce considerably instances of abnormal souring of milk.

(iv) Distribution of milk in bottles is to be introduced and a combined bottle washing and filling machine is to be installed. The distribution of bottled milk is an accepted mode of milk marketing in urban areas of advanced countries. This has been a long felt need in Madras City.

(v) To provide milk at odd hours, it is proposed to open 10 depots in crowded residential localities. These depots will be provided with a "drop-in" milk cooler each.

IV. Establishment of salvage farms for dry cattle.—One of the most vexed problems connected with urban milk supply is the proper maintenance of milch animals during their dry period. The performance of an animal during the subsequent lactation is dependent upon its proper maintenance during the dry period that precedes it. Production cost can also be lowered considerably by minimising the dry period and thereby the cost of maintenance during this period. In the economy of the cattle keeper, the code which guides his conduct is the immediate economic benefit that he can secure through his industry. His concern is to secure funds and for this purpose he is bent upon disposing of his dry cattle for whatever price he can obtain. The cost of dry stock is often abnormally low due to the distress selling of cattle keepers. Further, these dry animals are neglected and

considerable losses occur on account of disease and mortality.

Adequate facilities for the salvage of dry cattle are, therefore, absolutely necessary for preserving and improving the cattle wealth. There are at present only 3 salvage farms for dry cattle. It is proposed to establish 5 more during the Plan period, one in each of the following districts of South Kanara, Ramanathapuram, Tirunelveli, Tiruchirappalli and Coimbatore. According to the scheme, each farm will require a capital cost of Rs. 40,000 and an annual recurring expenditure of Rs. 5,900. The total cost of the scheme is Rs. 2.88 lakhs.

V. Establishment of cattle-breeding co-operative societies.—The existing 14 societies of this kind produce about 25,000 improved calves annually. The

progress made in this direction of improving the strain of cattle has not yet had any appreciable effect on the cattle stock of this State.

Under the Second Five-Year Plan, it is proposed to establish 12 more cattle-breeding societies in the State at a cost of Rs. 1,02,500. These societies are expected to produce annually 15,000 improved calves. Each society will be provided with three pedigree bulls and the cost of supervisory staff and first aid medicines.

The above scheme included in the Second Five-Year Plan, if implemented, would be an eloquent answer to the problems facing the Dairy Industry in our State. Common endeavour through the Co-operative method is called for in greater and greater measure to achieve substantial and lasting results.



The President, Dr. Rajendra Prasad, presided over a function organized by the Sangeet Natak Akademi and presented annual Awards of the Akademi to the Musicians and Dancers of the Year, at the Red Fort, Delhi, on April 11.

The group of Artists who received the Awards from the President on the occasion (left to right):

- Shri Bismillah Khan (a well known 'Shahnai' player);
- Shri T. S. Palghat Mani Iyer (a famous exponent of instrumental music of Karnatic school);
- Shrimati M. S. Subbhalakshmi (the foremost exponent of vocal music of the Karnatic school);
- Guru Kunju Kurup (one of the greatest actors and teachers of the Kathakali style of dancing);
- Guru Amubi Singh (a foremost exponent of the Manipuri style of dancing); and
- Shri Ganesh Govind Bodas, who received the Akademi award in acting.



Public Health in Madras State

Over 10 crores to be spent on new Schemes in Second Five-year Plan

SRI A. B. SHETTY, Minister for Health.

The Second Five-Year Plan provides for the following medical schemes which may be considered to be important :—

(1) Increase of bed strength in Government Hospitals by 43 per cent over the existing bed strength of 13,856 ;

(2) Special schemes of improvement for the three teaching institutions in Madras and Madurai and for some of the major hospitals ;

(3) New buildings as well as additional equipment and staff to District and Taluk Headquarters Hospitals ;

(4) One Hundred and forty additional primary health centres in National Extension Services Blocks ;

(5) Special training schemes for technicians, nurses, maternity assistants, opticians and pharmacists ;

(6) Provincialization of some local fund medical institutions and rural dispensaries ;

(7) Establishment of regional and district laboratories.

Under Public Health the main schemes are—

(1) Six hundred maternity and child health centres ;

(2) Extension of malaria and filariasis control programmes ;

(3) Six more B.C.G. field teams ;

(4) Supply of latrine slabs at concession rates ;

(5) Medical inspection of secondary school children in 19 centres ;

(6) Extension of Health, Education and Publicity activities.

The total provision for Medical and Health Schemes amounts to Rs. 1,117 lakhs in the Second Five-Year Plan as against Rs. 325 lakhs in the First Plan. The budget for 1956-57 provides for 69 new medical schemes costing Rs. 47,57,000 and 26 new public health schemes costing Rs. 41,03,500. This includes Capital Expenditure as well as loans and grants.

The Health Situation—Essential Requirements

The two serious impediments to the improvement of public health in our country are the low economic status of the people and the lack of education among them. The unsatisfactory condition of environmental sanitation has created a situation far from conducive to healthy living. Owing to the inadequate and poor quality of the diet consumed by the majority of the

people, malnutrition is common. The incidence of communicable diseases and food deficiency diseases is high. No substantial improvement in public health can be achieved unless we develop our national economy and raise the living standards of the people.

Most of our people are not only ill-fed and ill-housed but also ill-doctored. It is difficult for economic reasons to provide adequate hospital facilities for the tremendous number of disease-ridden people among us. The number of qualified medical practitioners is short of requirements and most of them are concentrated in urban areas. There is great need for an early expansion of medical and health care, particularly in our rural areas where the great majority of our people live. Three of the essential requirements for improving the health situation are (1) production of a larger number of scientifically trained medical and auxiliary personnel and their even distribution in urban and rural areas, (2) reorientation of the pattern of medical training so as to equip the medical practitioners to perform simultaneously both curative and preventive work, (3) special attention to the needs of the rural areas which are medically under-privileged. The conditions of service for doctors in rural

areas have to be improved so as to induce qualified doctors to go and work there.

The new Medical College at Madurai and the attached hospital are being developed into a full-fledged institution for taking in 100 students a year at an expenditure of Rs. 105 lakhs which is the estimated cost for the present requirements. Departments of "Social and Preventive medicines" are expected to be established in our medical colleges in the near future. This will help to shift the emphasis from the predominantly individual and curative approach to a more community-minded and preventive outlook. The additional Primary Health Centres that are proposed to be set up in the National Extensive Service Blocks will extend facilities for an integrated form of medical and health service in the rural areas.

Control of Communicable Diseases

With modern medical techniques and the availability of foreign aid to put them into action, it has become possible for even a poor country like ours to undertake mass campaigns against some of the widely spread communicable diseases which have handicapped the people for centuries. The National Malaria Control Programme which this State is implementing has produced remarkably good results. Malaria has practically disappeared from all endemic tracts. The Madras State is participating in the National Filaria Control Scheme. Two control units have begun work at Mangalore and Kozhikode. Tuberculosis continues to be an increasing menace to public health. Domiciliary treatment by the use of new drugs has now become possible for early cases.

The starting of clinics where out-patient treatment can be given will extend the medical facilities to a large number of tuberculosis cases. It is, therefore, proposed to open fully equipped clinics in all District Headquarters Hospitals. Under the All-India Leprosy Project Scheme, there is provision for starting three more subsidiary centres next year for providing mass treatment in endemic areas. The Belgian Leprosy Unit at Polambakkam is carrying out a dynamic programme of treatment in Madurantakkam taluk and some neighbouring areas. The Hind Kusht Nivaran Sangh has

successfully carried out another annual publicity campaign of great educative value this year. Government have arranged for training successive batches of doctors in leprosy work at the Central Institute at Tirumani.

Indigenous Medicine

Medical opinion in the country is in favour of recognizing only the modern system of scientific medicine and incorporating into it whatever useful things there may be in the old systems in our country. For certain reasons Government are giving support to the teaching of Indigenous Medicine in separate institutions. The integrated system of teaching adopted in the Government College of Indigenous Medicine in Madras is in accordance with the recommendations of various Committees that have gone into this question. It is now a generally accepted proposition that the students at such institutions should receive an adequate knowledge of modern medicine in all its aspects along with instructions on the fundamentals of indigenous systems. From July 1955 the office of the Honorary Director of Indigenous Medicine has been abolished and the Administration placed under the control of the Director of Medical Services. The teaching of modern medicine has been upgraded by appointing a new staff with better qualifications. Steps will have to be taken to prepare modernised text-books

in Indigenous Medicine and secure properly trained teachers so that the Indigenous side of teaching also may be improved. A new hospital block has been opened this year and the bed strength of the hospital has been raised from 210 to 270. Another building has been constructed at a cost of Rs. 7 lakhs. New Physiology and Pathology Blocks have been housed in this building. Provision for several improvements required for the College and Hospital of Indigenous Medicine has been included in the Second Five-Year Plan.

Maternity and Child Welfare Service

There were 704 maternity and child welfare centres and 64 maternity homes in the year 1955 showing an increase of 90 centres and 5 Homes over the previous year. One hundred and twenty maternity and child welfare centres are proposed to be opened in rural areas during the first year of the Second Five-Year Plan, i.e., 1956-57.

Nutrition

This is the basic factor which affects health and efficiency in highly significant ways. Protein malnutrition has become a major factor in many of the diseases affecting mothers and children as well as other sections of the population. The free distribution of skim milk and other food supplements at maternity centres, the use of parboiled



Shri Sri Prakasa entertained the nurses of the city hospitals at a tea-party at the Raj Bhavan

MEMOIRS OF THE AGRICULTURAL DEPARTMENT

The publication contains detailed information on the work done by the Madras Agricultural Department from its inception in all fields of activities. The sale price has been reduced from Rs. 36-10-0 to Rs. 22-8-0 per copy.

The copies can be had from:

The Superintendent,
Government Press,
Publications Branch, Mount Road,
MADRAS-2.

hand-pounded rice in hospitals, the encouragement given to larger production of milk and development of fisheries are among the measures taken for combating malnutrition. The Nutrition Bureau of the Public Health Department is devoting special attention to the question of raising malnutrition standards among the people.

Family Planning

The Planning Commission has recognized the imperative need for encouraging Family Planning and population control in our country in the interests of the national economy and public health and particularly for promoting the health and welfare of mothers and children. They are providing for a family planning programme on a substantially increased scale during the next Plan Period. The Madras State is taking several steps to implement the family planning programme.

Water-supply and Drainage

The provision of protected water-supply and drainage should have a high priority in the development of health services. The Second Five-Year Plan provides for—

(1) National water-supply and sanitation scheme in villages worst affected by cholera in six districts at a cost of Rs. 120 lakhs ;

(2) Rural water-supply—10,000 draw wells and 400 composite schemes at a cost of Rs. 250 lakhs ;

(3) Urban water-supply and drainage schemes at a cost of Rs. 691 lakhs including a spill over of Rs. 491 lakhs for expenditure on schemes which are

now under execution. A further sum of Rs. 300 lakhs has been asked from the All-India Allocation for some more water-supply schemes which are considered indispensable.

We may look forward with hope to a slow but steady improvement in our health status. It will automatically follow improvements in the educational, economical and social status of the people resulting from our five-year plans of development.

A Call to Save Life

This is an appeal to every one by the State Blood Transfusion Service, Madras. We request you to donate a little of your blood to be used in the hospitals on serious cases requiring transfusion. Loss of blood from accidents, operations, child births and diseases like anaemia, are instances where drugs alone are not of much use and blood transfusion only can save the patient. This life-saving blood must come from the public. That means you. Blood alone can replace blood. There is no risk whatever attending the drawing of blood. Your blood will be taken only if you are found fit to part with it. A reward of Five Rupees is made to every donor. We appeal to you to call at the nearest Government Hospital Blood Bank to offer blood and thereby join the great endeavour of combating disease and deaths. The little blood drawn from you means nothing to you, but it may prove to be the gift to life to a fellow human-being dying from loss of blood. Donate a little blood and save human life.

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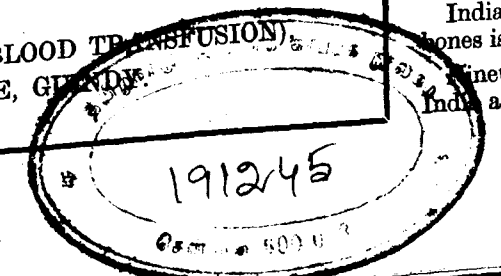
The Government of India have made a provision of Rs. 55.9 crores for payment of compensation to displaced claimants from West Pakistan during 1956-57.

Schemes costing about Rs. 20 lakhs for the control of sugarcane insect pests at regional centres have been sanctioned by the Indian Central Sugarcane Committee.

The Geological Survey of India has discovered the occurrence of good quality limestone deposits of about 254 million tons in the Dehra Dun-Mussoorie area in Uttar Pradesh.

India's annual requirement of raw cotton is 100,000 to 150,000 tons.

Nineteen paper mills are working in India at present.



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N36.

Projects for Prosperity

Irrigation and Power Schemes under the Second Plan

SRI SHANMUGA RAJESWARA SETHUPATHY, Minister for Public Works.

I. Irrigation

The "Irrigation and Power" section of the Plan has naturally to provide for the continuance of the major projects included in the First Plan but not completed during the period of currency of that Plan. There are ten such projects excluding the Lower Bhavani Project. Thirteen new projects were proposed by this Government for inclusion in the Plan by the Planning Commission. But the Government of India considered these in all their aspects and decided that only six of them could be included in the Plan, viz., the Kattalai and Pullambadi Canals, the Vidur Project, the Meenakarai Project, the Haladi Project and the scheme of diversion of west flowing rivers.

With the formation of Andhra State, the lion's share of the water resources of the composite State of Madras went to the new State and the residuary State of Madras was left with only one major river, viz., the Cauvery and other small rivers. Of these, the Cauvery is an inter-State river which has been almost fully utilised and naturally we have to turn to other small rivers whose waters are yet left untapped fully or partially. The possibilities of diverting the surplus waters of the western ghat rivers which now waste themselves into the Arabian Sea, to the eastern plains of the districts of Coimbatore, Ramanathapuram and Tirunelveli of this State without detriment to the needs of the neighbouring State are being examined and with the co-operation of the sister State of Travancore-Cochin, we hope that the projects can be investigated and executed successfully. One of the three projects of the kind referred to, is the multi-purpose Parambikulam project, the detailed investigation of which has been taken up already.

This project aims at benefiting large tracts in Coimbatore District by utilising the run off of the Parambikulam river and the other neighbouring streams whose catchments lie in Madras State.

New Schemes

Of the other five new Irrigation Projects to be taken up under the Second Five-Year Plan, token provisions have been made in the Budget Estimates for 1956-57 for New Kattalai High Level Canal Scheme, Pullambadi Canal Scheme and Vidur Reservoir Project. A provision of Rs. 2,00,000 has been made for the Meenakarai Reservoir Project. These will be sanctioned as soon as the approval of the Government of India to the Schemes included in the Second Five-Year Plan

is received. The New Kattalai High Level Canal Scheme envisages the construction of a head sluice at the Southern side of the Cauvery just to the right of the off take of the leading channel of the South Bank Canal and the excavation therefrom of a new canal of about 86 miles length. The scheme is estimated to cost about Rs. 156.65 lakhs and expected to irrigate an extent of 20,622 acres of which 12,000 acres (8,723 acres existing and 3,277 acres new) will be under 119 existing tanks in Tiruchirappalli and Tanjore districts, for which additional supply will be made by the execution of the scheme and 8,622 acres by direct irrigation from the Canal. The Pullambadi Canal Scheme comprises the construction of a head sluice on the northern bank of the Cauvery above



Dr. A. Ramaswami Mudaliar, M.P., speaking on "Economic Development of India" at a meeting held under the auspices of the Madras Branch of the Commonwealth Parliamentary Association at the Rajaji Hall.

the Upper Anicut and the excavation therefrom of a canal of about 54 miles length. The scheme is estimated to cost Rs. 142.43 lakhs and is expected to benefit an area of 22,114 acres (13,283 acres under tanks and 8,831 acres direct) in Lalgudi and Udayarpalayam taluks of Tiruchirappalli District. The Vidur Reservoir Project envisages the construction of a reservoir of 550 m.c.ft. capacity across Varahanadi about half a mile below its confluence with Tondiar and near Vidur in Tindivanam Taluk, South Arcot District, and the excavation of a left side channel 11 miles and 3 furlongs long taking off at a saddle beyond the left flank end of the dam from the rear of a head sluice. The scheme is estimated to cost about Rs. 61.37 lakhs and will irrigate an extent of 2,700 acres of which 1,000 acres lie in Pondicherry State. The Meenakarai Reservoir Project comprises a reservoir of 315 m.c.ft. capacity across the Meenakarai river near Malpudur, hamlet of Muthalamada in Palghat aluk, Malabar District, the excavation of a left side canal of 3½ miles length to irrigate an extent of 990 acres and the excavation of a right side canal of 5½ miles length to irrigate an extent of 3,110 acres. The estimated cost of the scheme is Rs. 49.56 lakhs. The Haladi Reservoir Scheme in South Kanara District has been investigated and it will be

examined and sanctioned for execution in due course during the Second Five-Year Plan Period. Thus while a total provision of Rs. 562.24 lakhs has been made in the Budget Estimates for 1956-57 for schemes of the First Five-Year Plan continued during the Second Plan Period, the total provision made in the Budget Estimates for the four new schemes of the Second Plan to be taken up in the budget year is only Rs. 2,00,300 which includes token provisions of Rs. 100 each for three schemes.

Minor Irrigation Programmes

In the Special Minor Irrigation Programme which includes also Tank Improvement Schemes for fasli year 1956-57 (i.e., July 1956 to June 1957) it is proposed to include 960 'continuation works' and 'new schemes' costing on the aggregate nearly Rs. 297 lakhs. A provision of Rs. 114.61 lakhs has now been made in the Budget Estimates for 1956-57 for all these works. A novel and economic scheme called Desilting-cum-reclamation scheme has been proposed for restoring the old tanks to full utility. Under this proposal, about half the lost capacity will be restored by raising the F.T.L. of the tank and the other half by removal of the silt from the bed. The desilted earth will be partly

utilised to reclaim the foreshore lands and bring them under cultivation in cases where they are not hitherto cultivated. A separate provision of Rs. 8 lakhs has been made in the Budget Estimates for 1956-57 for Desilting-cum-reclamation of irrigation tanks. Adequate provision has also been made in the Revised Estimates for 1955-56 and Budget Estimates for 1956-57 for the execution of repairs to irrigation sources damaged by the recent cyclone for the speedy execution of which a separate P.W.D. Circle has been formed.

From 1947-48 to the end of the current year, about Rs. 40 crores have been spent on capital outlay on Irrigation in the areas comprising the present Madras State. In the Budget Estimates for 1955-56 the provision under this head was Rs. 7.74 crores while the provision made in the Budget Estimates for 1956-57 is Rs. 8.19 crores. Every year we are providing substantial amounts and are achieving progress in the field of irrigation. All these have been possible with the assistance given by the Government of India financially and in other ways. With their continued assistance, we shall forge ahead in the matter of extending irrigation to the various parts of this State. We wish to acknowledge that the co-operation and enthusiasm of the people of the State in fostering irrigation development have contributed in no small measure to our achievement in the field.

II. Power Projects

In the Second Five-Year Plan, a provision of Rs. 6,110 lakhs has been made in respect of power schemes in the State to cover expenditure on schemes like the Periyar Hydro-Electric Scheme and the Madras Plant Extensions, which have already been taken up, and a few new generation, transmission and distribution schemes. The most important generation scheme to be included in the Second Five-Year Plan for this State is the Kundah Hydro-Electric Scheme which is the largest Hydro-Electric Scheme so far undertaken by the Electricity Department. The preliminary works on the scheme have already been taken up. The additional installed capacity proposed to be added to the grid during the Second Plan Period is 287,000 K.W. Another important aspect of the power



Sethusamudram Project Investigation Committee held a meeting at Secretariat recently.

side of the Second Plan will be the further intensification of the rural electrification programme. The targets of electrifying 250 villages and connecting up of 3,000 agriculture pumpsets per annum set under the First Five-Year Plan will be increased to 400 villages and 4,800 agricultural pumpsets per annum during the Second Five-Year Plan Period.

The capital outlay of Rs. 1,307 lakhs on Electricity Schemes proposed for the budget year represents the anticipated requirements of the power schemes during the first year of the Second Five-Year Plan. It includes a provision of Rs. 200 lakhs for the Kundah Hydro-Electric Scheme, Rs. 322 lakhs for the Periyar Hydro-Electric Scheme, Rs. 161 lakhs for the Madras Plant Extensions and Rs. 490 lakhs for rural electrification. A provision of Rs. 36,67,500 has also been made for payment of compensation in respect of certain electrical undertakings already taken over by the Government and a few company undertakings which are proposed to be acquired during the budget year.

Agricultural Proposes

As already indicated in the budget speech of the Finance Minister it has become necessary to enforce a power cut in the Hydro-Electric areas of the State with effect from the 1st April 1956 on account of the low water storages in the hydel reservoirs. Let us hope that this vulnerability of our grid to the vagaries of the monsoons will be tided over shortly with the availability of power from the lignite burning thermal station of 200,000 K.W. capacity proposed to be set up as part of the Lignite Mining Scheme of the Government of India. Besides, negotiations are under way with the Travancore-Cochin Government to avail of bulk supply to the extent of 25,000 K.W. at the Udumalpet border by the end of 1956-57 to meet the growing power demands in the State.

It is essential in the present context of the developing economy to safeguard against the power demand in the State outstripping the availability of supply. With a view to meet such a contingency, apart from the schemes to be included in the Second Five-Year Plan, the Electricity Department has already undertaken the detailed investigations of the Kumbhar-Amaravathy.

Palar-Porandalar and Coonoor-Karteri-Kallarpallam-Kolakambe Hydro-Electric Schemes. During the budget year it is proposed to undertake the detailed investigations of the Mettur Tunnel Scheme for seasonal power development by utilising the irrigation discharges at the Mettur Dam.

The policy of the Government is to give priority for supply of power for agricultural purposes and various concessions have already been granted to agricultural consumers in the matter of supply of power. Recently, the Government have also set up a committee to examine the prevailing rates for supply of electricity with a view to recommend uniform revised rates for all the systems. In the process of revision of existing rates, the possibility of affording any relief to the agricultural consumers will also be examined.

Electricity Board

I take this opportunity to indicate the reasons for this State's objection to the constitution of an Electricity Board under the Electricity Supply Act, 1948. The main objects underlying the Board idea, viz., improvements, co-ordination and rationalisation of production, bulk transmission and distribution of power have already been achieved in this State, as over 99 per cent of the power now consumed in this State, is generated and transmitted in plants owned and operated by the State. The Electricity systems of this State are now being operated in one grid under unified and co-ordinated control and management.

In the matter of power development and administration of the Electricity supply business in this State the Government machinery has proved to be quick, resilient, and efficient as evidenced by the power development achieved in this State and the steady return yield on the capital outlay with only very reasonable rates charged to consumers. It is a matter for doubt whether the Board, if one had been in existence in this State, could have achieved so much of progress as has been achieved by the Government during the period of the First Five-Year Plan. Electricity supply in bulk and distribution of power, which is a public utility, must necessarily be a State monopoly if a large grid is to be operated. An Electricity Board with such a monopoly is likely to show profits by pushing up rates and be generally unresponsive to public opinion and needs. The Board which will not have the same authority and resources as the State Government may not be able to raise funds for development any better than the State Government. This Government have built up a well-knit organization in their Electricity Department and it would be very difficult to hand it over to the Board at this stage without sacrificing its efficiency and prejudicing the interest of the public at large. The interests of electrical development in this State are bound up with those of irrigation, e.g., in the case of Mettur, Papanasam and Periyar Schemes, and the setting up of an Electricity Board for this State will amount to indirectly placing the control on irrigation also with the Board.

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Some diseases of Ear, Nose and Throat

DR. V. ANANTAGIRI.

Ear, Nose and Throat, are each one of them, equally important for a human being. In fact, every part of a human being is an essential part by itself.

Ear has two functions (i) hearing and (ii) maintaining the balance of the body. Wax in the ear, is a common collection, of the secretion of ceruminous glands of ear. Wax may produce blocking of the ear and mild degree of diminished hearing and mild degree of pain. The treatment is to remove the wax gently, by syringing the ear with a lukewarm solution of sodibicarbonate in water. No one, should attempt, to remove the wax by using "ear picks" or end of a match stick, etc., because if the external ear is injured, it may produce much pain later on.

Dry Ears

Fungus in the ear, is another common condition. It produces itching in the ear canal, blocking of the ear and also a little discharge and noises in the ear. The ideal prophylactic treatment is to keep the ears dry. If the ears are wet, there is frequent growth of fungus. The ears must be syringed and a few drops of Boric Alcohol may be put into the ear. While bathing, the external ear may be closed with a little cotton as a prophylactic measure.

Chronic discharge of pus from the ear, is a very troublesome and common condition in children and adults. It is as a result of complications of frequent infections of cold and blocking of the nose. The middle ear is affected and chronic discharge of pus may spread and end as Mastoiditis, a serious condition.

Take Care of Cold

So, we must be careful, when we catch cold. A person affected with cold

should not blow the nose violently. Inhalations with Tr. Benzoin Co. rectified (or *சாம்பாக்காய்*) are good to prevent the extension of infection to middle ear. Chronic discharge of the ears must be cleaned daily, and antibiotic drops put into the ear. Orally Multivitamins and general Tonics will help.

External otitis is a common condition in which there is marked pain and tenderness in the front part of the ear. Dry fomentation and sulphonamides will cure this condition.

Polypus in the ear is a growth of granulation tissue, as a result of chronic infection of the middle ear. It must be surgically removed.

Deafness

"Noises in the ear" are associated with a type of deafness and it is an irksome condition. Most lay people have an impression that the noises are due to flies in the ear, because some quacks claim to have removed flies from the ear. But it is not so. The causes for the noises are varied and many, and the treatment of noises in ears, is unsatisfactory. Deafness are of two types (i) Nerve deafness and (ii) Bone deafness. Recently a successful operation has been devised for deafness of bone type. People must avoid jumping into water without proper ear covering, or boxing the ears violently as both these may produce rupture of tympanic membrane. Common "Cold" though a simple disease when left alone, it may produce complications such as pan-sinusitis, infections of the middle ear and laryngitis. A person affected with cold should not blow the nose excessively and violently. Because, such violent blowing of the nose may spread the infection to the adjoining sinuses or

middle ear or larynx. As a prophylactic against complications, one must gently blow the nose and also take inhalations of Tr. Benz. Co. rectified.

"Chronic Recurrent colds" are due to an allergic condition and are difficult to be cured. Avoiding dusty and warm atmosphere, and orally taking large doses of vitamin C and anti histamines are beneficial in treating chronic Rec. colds.

Polypus in the nose, is a common condition in which there is a bluish pedunculated mass of tissue in the nasal cavity. Polypus produces obstruction to nasal breathing. The treatment is surgical removal of the nasal polypus.

Rhinospiridium, is a less common condition. In this, there is a reddish easily bleeding growth in the nose with a typical appearance and blocking of nose. The treatment is surgical removal of the growth, and cauterising the base.

Malignant new growths of the nasal cavity are less common. They produce the same symptoms of nasal bleeding or discharge, and obstruction to nasal breathing. If success in the treatment of malignant tumors of nose or for the matter of that in any part of the body is to be attained an early diagnosis of the condition is extremely important. Hence every patient must consult a qualified medical man as early as possible to get a correct diagnosis.

A Caution

In this connection I want to impress the fact that self medication of any type is dangerous, particularly after listening to the commercial lay broadcasts or advertisements in the lay press. There are various diseases which simulate one another and only a qualified and properly trained medical man will be able to help the patient.

Few air cells (sinuses) are placed by nature around the nose for making the skull "light". These air cells may get infected and produce a condition called Ac. Sinusitis. In Ac. Sinusitis patient will have foul smelling discharge from the nose and one sided headache. The headache, in Ac. Sinusitis, increases in intensity, as the sun rises in the sky and decreases in the afternoon. Prophylactic is to avoid "Colds". Treatment is to have frequent inhalation of Tr. Benz. Co. rectified. Sulphonamides and antibiotics. If still no relief, surgical procedures will be beneficial.

A troublesome condition called atrophic Rhinitis is one in which a very foul smelling material is thrown out of the nasal mucosa daily. The treatment is to keep the nose clean and use haromone containing ointments.

Tonsils

The main function of tonsils is to prevent infection entering the body by throat. While discharging the duties the tonsils are infected and become septic and enlarged in size. In acute tonsillitis the patient gets high fever, pain in throat and difficulty in swallowing food, of a short duration. This can be treated easily with sulphonamides and penicillin. If the patient gets recurrent attacks of acute tonsillitis, the tonsils should be surgically removed in a quiescent period. Children have normally small Adenoids, which are situated behind the nose. Occasionally when the Adenoids are enlarged the child cannot breathe by nose and he always keeps his mouth open for breathing, and has a peculiar "Adenoid appearance." The treatment is surgical removal of the Adenoids.

Diphtheria

Diphtheria is a very dangerous communicable disease of children. In diphtheria there is a gradual onset of sore throat, low grade fever and increasing toxæmia. A membrane will be seen in throat over the tonsils. In later stages of disease, patient will develop a typical croupy cough and breathlessness, a very serious symptom. As soon as it is suspected Diphtheria must be treated energetically. Immediate injection of Anti Diphtheritic serum and isolation in a hospital and absolute rest will save the diphtheritic

patient, if attended to as early as possible. As the initial symptoms of diphtheria, are not sufficient to attract the attention of the parents or the doctor, any change in voice and even little indisposition in young children such as "colds" should be immediately investigated and their throats examined to exclude diphtheria. Young children can be effectively protected against diphtheria, by prophylactic injection of anti-diphtheria serum. Bleeding from nose is not a disease by itself but a symptom of disease. The causes must be investigated. They are many and can be treated suitably. Though alarming, nasal bleeding is not dangerous, if suitably treated.

Boils and pimples around the nose, 'below the eye brows and above the upper lip' are dangerous as they may spread rapidly into the cranium. These boils in the face should not be touched or scratched or treated carelessly. With proper precaution and treatment we can cure them. Difficulty in swallowing food in elderly people is a condition which needs investigation by a

specialist as it may be due to cancer of the gullet.

So also, hoarseness of voice, of more than two weeks' duration, must be investigated as early as possible, as it might be due to serious diseases such as cancer or Tuberculosis or Syphilis.

In conclusion, I will like to repeat, that diseases of ear, nose and throat are as much preventable as that of any other system, if we take proper precautions and prophylactic treatment. Clean and healthy habits are essential, for healthy living. In every condition, one must seek the aid of a trained medical man as early as possible, without delay, when some benefit and cure can be expected.

Fined under Companies Act

One liquidator of a company was fined for failure to summon a general meeting of the company for the purposes of laying an account of his acts and dealings and the conduct of the winding up.

Stone Age Implements Sequence Discovered

A surface collection recently made by the Assistant Superintendent, Department of Archaeology, at Nagarjunakonda, Guntur, has yielded a rich harvest of Stone Age implements, including microlithic tools.

Among the collections are : Palæolithic (Abbevillian-like) hand axes; middle palæolithic flake-made hand axes and proto-le-vallois flakes; upper palæolithic blade element and leaf-shaped arrowhead, and lastly, microlithic tools made out of a rather limited and indifferent supply of small pebbles of jasper, chalcedony and chert.

The microlithic collection has a few outstanding characteristics such as (a) the almond-shaped point which owing to the limitations of raw material is most often fashioned out of a first place which has its ventral side entirely of cortical patch. Cortical patch (or cortex) is the original pebble surface

left on a tool, whether core of flake; (b) scrapers made up of irregular coroid lumps (irregular shaped core out of which some flakes have been removed) as well as back-cortexed flakes, and (c) burins (a special kind of tool used for engraving on bone and rock surfaces) which are both of the 'angle' as well as the 'transverse' types. This is an interesting occurrence and has been noticed in the Kurnool area as well.

Strategic Valley

The Nagarjunakonda Valley had commanded a strategic position among the string of riparian trade and cultural outposts in the lower Krishna basin during the early historic times. This was equally true of the site even during the prehistoric times. Megalithic stone circle with a central flat capstone topping the cairn heap is not an unknown sight in this valley.

(See photo on the opposite page.)

A.I.R., Tiruchi : Rural Programmes for May

Tuesday, 1st May 1956—

Udai Alankaram (2) Pattadai Musical feature Farm Forum: Discussion—Participant : T. K. Sundaram Folk Songs.
Market rates and water level readings.
Topical discussion ; weather report.

Wednesday, 2nd May 1956—

Listeners' Letters.
Poocharam—Songs on Lord Buddha.
Kashmir : Wedding customs : Discussion.
Market rates and water level readings.
Topical discussion ; weather report.

Thursday, 3rd May 1956—

Gnanachuvadi—Isai Nigazhchi.
Farm Forum : Discussion—Participant : G. Gopal.

Thursday, 3rd May 1956—cont.

Folk Art : Kaichilambu Kacheri : Participants—K. T. Ekambaram and Tirukalathi.
Market rates and water level readings.
Topical discussion ; weather report.

Friday, 4th May 1956—

Appakkara Angayee (2) Serial Sketch.
Irulil Oli : Serial Feature on Gandhiji's life.
Namadu Dittam (3) Veettu Vasadi.
Market rates and water level readings.
Topical discussion ; weather report.

Saturday, 5th May 1956—

Vannangal Vetrumai : Song.
Mudiyor kalvi koodam: Tirukkural—Purankooramai (Kural Nos. 185 and 186).
Senkadir Venmai : Song.
'Mudumalai Game Sanctuary'—Talk in Tamil arranged by the Chief Conservator of Forest, Madras.

Saturday, 5th May 1956—cont.

Weekly review of market rates.
Market rates and water level readings.
Topical discussion ; weather report.

Sunday, 6th May 1956—

Papaya cultivation : Discussion.
Grama Kalakshepa Mandapathil : 'Bhagirathan'—Musical discourse by H. Azhagiamanavalu Naidu.
Market rates and water level readings.
Topical discussion ; weather report.

Monday, 7th May 1956—

Climate and Cattle-health : Discussion.
Folk Art ; Oyl Kummi by Chinnappa Servai and Party.
Market rates and water level readings.
Topical discussion ; weather report.

Tuesday, 8th May 1956—

Kalappithan : Sketch.
Pachaikkuzhandaiyadi—Song.
Farm Forum : Discussion—Participant : A. Shanmugham.
Folk songs.
Market rates and water level readings.
Topical discussion ; weather report.

Wednesday, 9th May 1956—

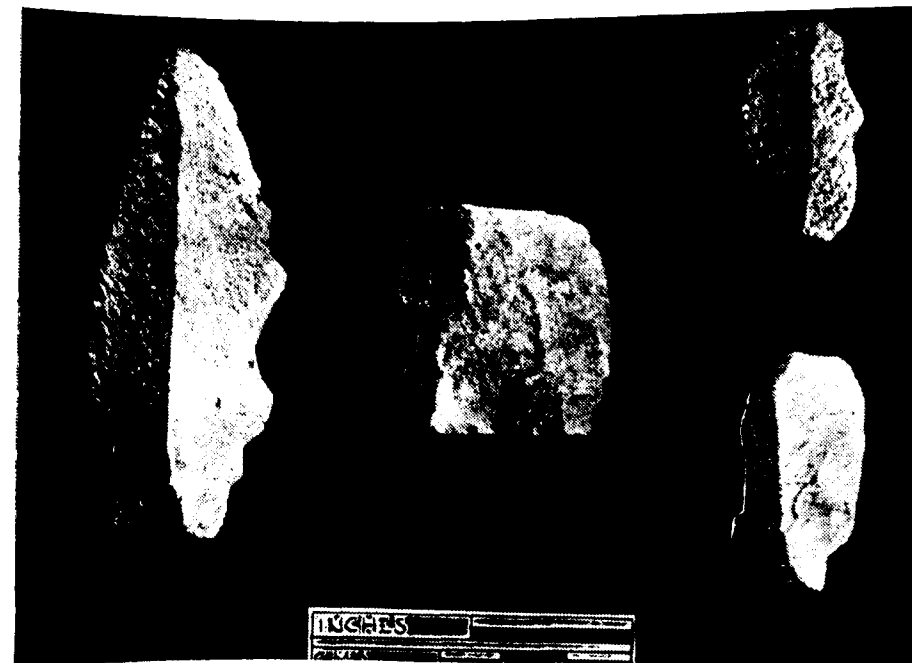
Guinea-worm Disease : Discussion.
Poocharam—Songs on Lord Buddha.
Valarum Payir (3) Discussion on 1st Plan achievements : Participant : V. Krishnakanthan.
Market rates and water level readings.
Topical discussion ; weather report.

Thursday, 10th May 1956—

Pattai Kelungal (Songs on the Plan).
Farm Forum : Discussion—Participant T.S. Swaminathan.
Mandiram Kal Madi Mukkal : Play.
Market rates and water level readings.
Topical discussion ; weather report.

Friday, 11th May 1956—

Kudumba Kodari : Play.
The Village Welfare Association : Discussion.
India Pattai Kettaneya—Musical feature.
Market rates and water level readings.
Topical discussion ; weather report.



Flake-blade group of implements (series III Burkitt) from Nagarjunakonda. A surface collection recently made by Department of Archaeology at Nagarjunakonda has yielded a rich harvest of stone implements.

Saturday, 12th May 1956—

Devotional songs.
Mudiyor kalvikoodam : Tirukkural—
Purankooramai—Kural Nos. 187
and 188.
'Satya Vridam'—Feature on Id-ul-
Fitr by T. M. M. Ahmed.
Weekly review of market rates.
Market rates and water level readings.
Topical discussion ; weather report.

Sunday, 13th May 1956—

Pests in stored grains—Discussion
Varna Mettu—Folk tunes.
Namakku Vendam : (2) Oolai sadai :
Serial feature.
Market rates and water level readings.
Topical discussion ; weather report.

Monday, 14th May 1956—

Foot and Mouth disease : Discussion.
Grama Nataka Sabhaiyil : 'Va-Vu-Si'
Villupattu by 'Maran'
Market rates and water level readings.
Topical discussion ; weather report.

Tuesday, 15th May 1956—

Avarukku Ivar : (2) Samayalkara
Dambadigal : Serial sketch.
Nalla Kalam—Song.
Farm Forum : Discussion—Partici-
pant : V. Pazhaniswamy.
Folk Songs.
Market rates and water level readings.
Topical discussion ; weather report.

Wednesday, 16th May 1956—

Listeners' Letters.
Poocharam : Songs on Lord Buddha.
Panchanga Seerthirutham : Discus-
sion.
Market rates and water level readings.
Topical discussion ; weather report.

Thursday, 17th May 1956—

Gnana Chuvadi—Isai Nigazhchi.
Farm Forum : Discussion—Parti-
cipant : S. Periaswami Gounder.
Kolattam by Rathnaswami Servai
and Party.
Market rates and water level readings.
Topical discussion ; weather report.

Friday, 18th May 1956—

Vantha Vellam : Play.
Iruffi Oli : Serial feature on Gandhi's
life.
Namadu Dittam (4) Pokku Varathu :
Discussion.
Market rates and water level readings.
Topical discussion ; weather report.

Saturday, 19th May 1956—

Manjal Veyyil—Song.
Mudiyor kalvi koodam : Tirukkural
—Purankooramai (Kural Nos. 189
and 190).
Ennai Inra—Song.
Talk in Tamil arranged by the
Director of Medical Services,
Government of Madras, Madras.
Weekly review of market rates.
Market rates and water level read-
ings.
Topical discussion ; weather report.

Sunday, 20th May 1956—

Hill-tribes of Anaimalais : A pro-
gramme of interviews and folk
arts : Recorded at Anaimalai
Hills.
Market rates and water level read-
ings.
Topical discussion ; weather report.

Monday, 21st May 1956—

Care of the horns : Discussion.
Folk Art : Lavani—Participants :
K. P. Singaravelu and S. Adi-
moolam Pillai.
Market rates and water level read-
ings.
Topical discussion ; weather report.

Tuesday, 22nd May 1956—

Panamum Manamum : Sketch.
Parukkulle Nalla Nadu : Song.
Farm Forum : Discussion—Partici-
pant : S. Vasudeva Naicker.
Folk songs.
Market rates and water level read-
ings.
Topical discussion ; weather report.

Wednesday, 23rd May 1956—

Maternity welfare (2) During con-
finement : Discussion.
Poocharam : Songs on Lord Buddha.
Valarum Payir : Discussion on 1st
Plan achievements—Participant :
Thangavelu.
Market rates and water level read-
ings.
Topical discussion ; weather report.

Thursday, 24th May 1956—(Buddha
Purnima).

Bodi Nizhal.

1. Buddha Dharmam : Vachakam.
2. Isai Yetriya Sudar : An incident
from Lord Buddha's life : Feature.
3. Buddha Dharmam : Vachakam.
4. 'Amuda Surabhi'—Feature incor-
porating Buddha's teachings by
T. S. Vasudevan.
5. Market rates and water level
readings.
6. Topical discussion : weather report.

Friday, 25th May 1956—

Folk Song lesson.
The Village Women's Forum : Dis-
cussion : Participant—K. A. A.
lakshmi Ammal.
Ammamai.
Grama Padasalaihil : Naladiar (2).
Market rates and water level read-
ings.
Topical discussion ; weather report.

Saturday, 26th May 1956—

Sithirathil Sentaramai : Song.
Mudiyor Kalvi koodam : Tirukku-
ral—Payanila Sollamai (Kural
Nos. 191 and 192).
Inimai Tamizh Mozhi : Song.
Cottage Industry : Appalam Sei-
pavar : Interview.
Weekly review of market rates.
Market rates and water level read-
ings.
Topical discussion ; weather report.

Sunday, 27th May 1956—

Grama Panchayat : Kalla Charaya
Vazhakku by N. Vasudeva.
Varna Mettu : Folk tunes.
Market rates and water level read-
ing.
Topical discussion ; weather report.

Monday, 28th May 1956—

Shoes for Cattle : Discussion.
Folk art : Urumi Melam : M. Ramana
and Party.
Market rates and water level read-
ings.
Topical discussion ; weather report.

Tuesday, 29th May 1956—

Aal Padi : Sketch.
Ulagodu Samamena—Song.
Farm Forum : Discussion.
Folk songs.
Market rates and water level read-
ings.
Topical discussion ; weather report.

Wednesday, 30th May 1956—

Listeners' Letters.
Poocharam : Songs on Lord
Onre kulam.
Market rates and water level
ings.
Topical discussion ; weather report.

Thursday, 31st May 1956—

Tudippadalgal.
Farm Forum : Discussion—Parti-
cipant : R. Balasubramanian.
Gramapattum Katchiyum.
Market rates and water level
ings.
Topical discussion ; weather report.



32A
LEAD, KINDLY LIGHT!

Sri C. Subramaniam, Education Minister, in the course of his recent tour in Malabar and Coimbatore Districts, laid the foundation-stone for the new building of Tellicherry Government Brennen College, opened the Chovva High School by kindling a *nilavilakku* and visited the School of Technology at Coimbatore.

It's not
how much
but **WHAT**
he eats
that
matters



A heaped plateful of food is no indication of healthy childhood. Your child may eat plenty, yet show visible symptoms of bad nutrition — such as stunted growth, thin appearance, bad teeth, and susceptibility to cold. He lacks vitamins in his food. Put him on ADAMIN (Concentrated)—nature's own source of vitamins A & D and watch his growth—rounder cheeks, healthier appearance and resistance to disease.

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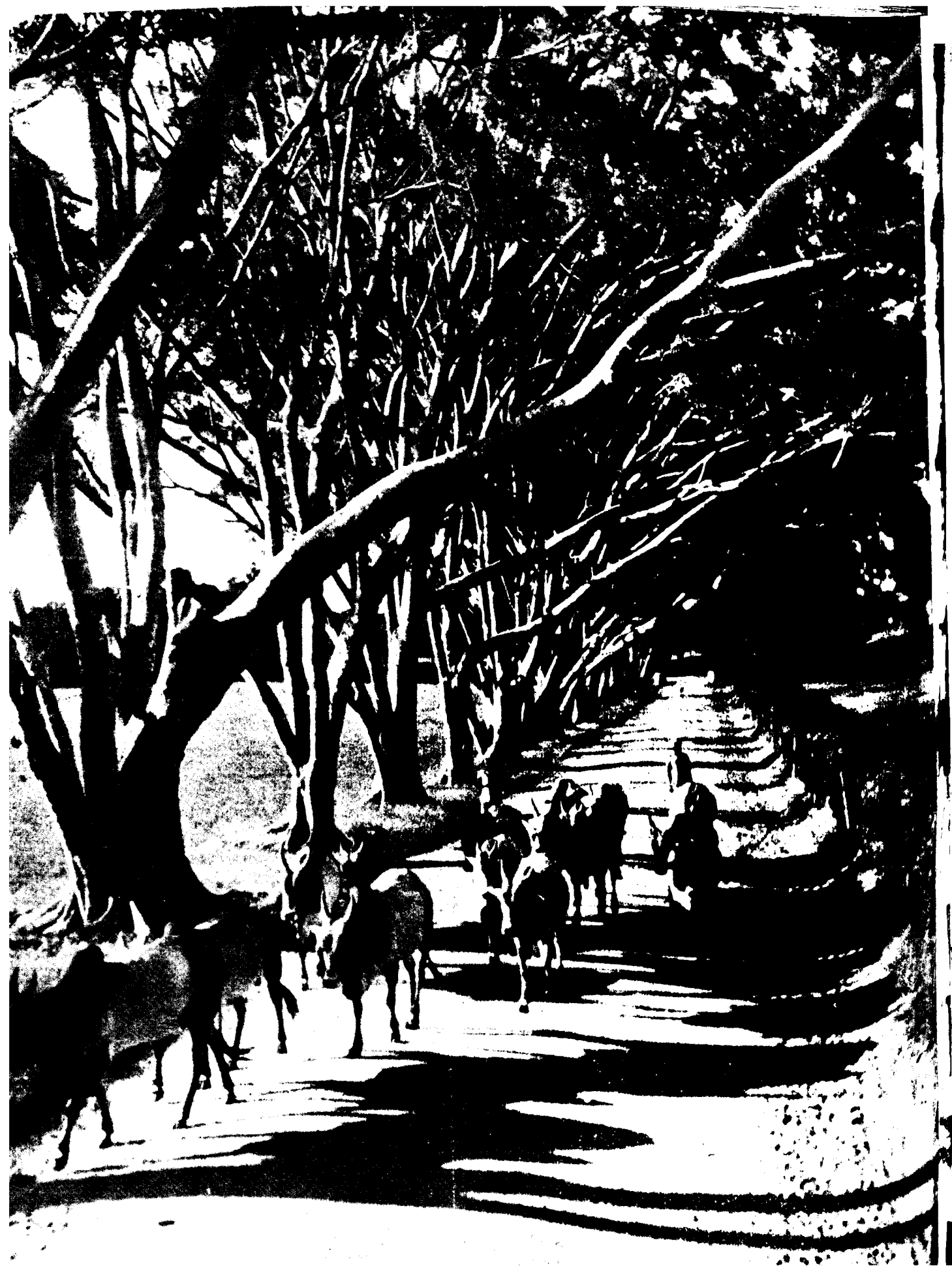
Standardised to
Liquid Capsules
Vit. A. 12,000 6000 I.U.
I.U./Gm each
Vit. D. 1000 1000 I.U.
I.U./Gm each

Standardised to
Vitamin A. 1,500 I.U.
Vitamin D. 100 I.U.
per gramme

**GOVERNMENT OIL FACTORY,
KOZHIKODE.**

A DIVISION OF THE DEPARTMENT
OF INDUSTRIES AND COMMERCE, GOVT. OF MADRAS.





Madras Information

6-JUN1956

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"WE SEEK TO SERVE AND NOT TO COMPETE"

June 1956

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Rice Breeding

Smiling green paddy fields, fringed with palm trees, are a common sight in Eastern India. A source of inspiration always to the poets, painters and philosophers, they produce the much needed rice on which a major part of the food economy of the country rests. In several remote villages of India paddy and rice still serve as a medium of exchange among the people.

The all-India final estimate of rice for 1955-56 puts the current year's area and production of the crop at 76,253,000 acres and 25,474,000 tons as against the partially revised estimate of 75,949,000 acres and 24,531,000 tons, respectively, for 1954-55. This shows an increase of 304,000 acres or 0.4 per cent in area and 943,000 tons or 3.8 per cent in production during the current year. Reliance

on improved varieties of paddy, better fertilizer practices and improved technique have contributed to the increased yield and near self-sufficiency in rice. India is taking rapidly to the Japanese method of paddy cultivation. Under the Japanese pattern of farm, the service of modern science is utilized for making the small farm as technically efficient as possible.

On the Second Cover Page

Our History, our old Literature and our religions all indicate that we were highly tree-conscious people.

During the last few hundred years, however, this consciousness almost disappeared. There are many indications to show that, such as naked hill-sides, frequencies of seasonal floods, formation of deep ravines along the banks of several rivers—Jamuna, Chambal and Narbada to name a few—and the advance of Rajasthan desert towards the Gangetic plains along a front of over 100 miles.

Glorious Avenue Trees

Along the national highways too—there are glorious exceptions such as the tree-lined Mysore highway in the picture—it is painful to see huge trees planted forty to fifty years back dead or dying because of the vandalism of goat-herds wanting to feed their flocks of goats or people looking for firewood.

However, through the annual Vana Mahotsavas (started in 1950) and the concerted efforts of States and the Union Ministry of Food and Agriculture, once again tree consciousness and

love of forests is being developed. More and more people are realizing that the climate, the trees, the land, its protection from visitations of floods, and its fertility and those who live on it are a single and inseparable organism.

Over Rs. 24 crores will be spent under the Second Five-Year Plan for the development of the country's forest wealth. This will lead to afforestation of six-lakh acres and development of new plantations over an area of three-lakh acres.

News and Notes

More Milk Day Celebrated

More Milk Day was celebrated this year for the second time on 13th April 1956, the Tamil New Year's Day, on a large scale in the City of Madras and in all the districts of the State with the active co-operation of the Registrar of Co-operative Societies, President of the Madras Co-operative Milk Supply Union, Ayanavaram, Commissioner, Corporation of Madras and the Collectors of the Districts. The present report is about the celebration in Madras City. Considerable publicity was given regarding the celebration through the Press, wall-posters, handbills and the All-India Radio. The staff of the Veterinary Department, the milk supply unions and the sanitary staff of the Corporation of Madras gave wide publicity through personal contact with individual co-operative societies, milk producers in the City and the public.

The Madras Co-operative Milk Supply Union had arranged for the free supply of milk to the school children at 12

centres of the City wherein very important personages had distributed the milk. The Government Milk Factory at Teynampet supplied 4,000 lb. of toned milk to the Corporation of Madras for distribution to the authorities for distribution to the school children and the child welfare and health centres in the City. Kesava Pillai Park, Choolai, was the main centre of attraction on that day where more than 3,000 school children were supplied with free milk with the active co-operation of the Health Officer, Corporation of Madras, Deputy Director of Animal Husbandry (Key Villages) and the Special Officer for Milk. Thirty-nine child welfare and health centres were also supplied with milk for distribution simultaneously. In all nearly 10,000 children were supplied with milk by the Corporation authorities. As usual milk supply for the school children was arranged at the Raj Bhavan School. Due to the unexpected indisposition of the Governor,

the Director of Animal Husbandry distributed the milk to the school children with the co-operation of the Governor's Household staff. A variety entertainment was given by the school children on the usefulness of the milk which was very much appreciated.

A cattle show was organized by the department of Animal Husbandry at the S.I.A.A. grounds on the 12th itself. The Show was well represented and different breeds of milch cattle, cows, heifers and calves and breeding bulls and calves born through artificial insemination process were brought by cattle owners as exhibits. Judging of the exhibits was done by the officers of the Animal Husbandry department and prizes were awarded to the owners of the best exhibits in different classes on the 13th by the Minister for Agriculture.

In conjunction with the More Milk Day Celebrations, an exhibition was organized on the verandah of the Rajaji Hall. The Dairy Section of the Madras Veterinary College, the dairy section of the Co-operative Milk Supply Union, Ayanavaram, the Vulcan Trading Company who are dealers in dairy machineries, the propaganda section of the Animal Husbandry Department and the Government Milk Factory displayed their exhibits. The public who attended the meeting at Rajaji Hall that evening went round the exhibition and evinced keen interest in the modern methods of dairying, equipment, etc.

A symposium on milk in English was released on this day and about 500 copies of the symposium were distributed to the public. Apart from this reprints from *Mezhichelvam* on the important aspects of dairying were also issued to the public. Copies of 'Dairy Farming as a Cottage Industry' in Tamil written by the Director of Animal Husbandry were made available to the public.

(Continued on page 7)



Free distribution of milk to children on the "More Milk Day" by the Madras Co-operative Milk Supply Union. The Mayor of Madras distributes at Kuppan.

Community Project Study Team

A team consisting of officials in charge of Community Development Programme in India has commenced its study tour abroad on 20th April 1956. The team consists of Sri A. D. Boara, Director of Training, Community Projects Administration, New Delhi; Sri H. N. Thakur, Deputy Development Commissioner, Bihar; Sri L. S. Ingty, Project Executive Officer, Assam; Sri Mahabir Prasad, Irrigation Adviser, Ministry of Food and Agriculture, New Delhi; and Sri P. D. Shukla, Ministry of Education, New Delhi. Sri Zahir Ahmed, Development Commissioner, Hyderabad State, will be the leader of the team. The first study tour arranged by the Community Projects Administration, it may be recalled, was in January 1956 and the members visited Middle East and a few countries in Europe.

The study team, the second of its kind arranged by the Government of India, will visit Indonesia, Phillippines, Japan and United States of America and spend nearly 10 weeks in studying the various development projects with special reference to rural areas. The members of the party had a discussion with Sri N. E. S. Raghavachari, I.C.S., Additional Development Commissioner, Madras State, before they left for Singapore on 20th forenoon.

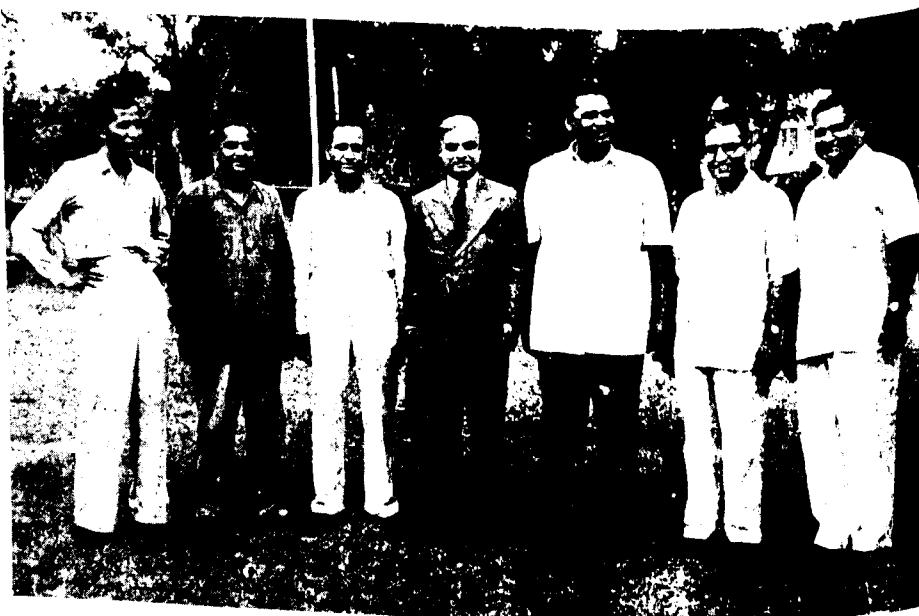
Facts and Figures

The Government of India have so far built 645 colonies exclusively for displaced persons from East Pakistan. Sanction has also been given for 90 training schemes and 41 medium, small and cottage industries in these colonies.

There are at present about 36,000 basic schools and 250,000 ordinary primary schools in India.

India exported 320,816 birds valued at Rs. 4,83,555 during 1955-56.

The Area under rubber cultivation in India increased to 215,726 acres by the end of last year from 176,647 acres in December 1954.



Members of the team with Sri N. E. S. Raghavachari, I.C.S., Additional Development Commissioner, Madras, during their brief stay in Madras on their way to Singapore.



Srimathi Sarojini Varadappan, distributing prizes to the inmates of the Service Home at the Annual Day celebrations.

Intensive Manuring (Sugarcane) Scheme

The Government have directed that the loans under the Intensive Manuring (Sugarcane) Scheme during 1956-57 be sanctioned and disbursed by the Revenue Department with effect from June 1, 1956.

It may be recalled that the Government had earlier ordered the transfer of the work relating to the sanction and disbursement of loans under the Intensive Manuring Scheme to the Revenue Department.



Superintendents of Government Presses in South India met recently in conference at Madras.



The Conference of General Managers of Indian Railways in New Delhi.

Development of Khadi Industry :

The Government of India have sanctioned to the All-India Khadi and Village Industries Board grants, totalling about Rs. 32,94,500 and a loan of Rs. 75,000 for the development of the khadi industry.

Of this amount, a sum of Rs. 15 lakhs is to be utilized for providing subsidies to institutions and centres on their increased production and retail sales of khadi. A subsidy of $\frac{1}{4}$ anna in a rupee will be given to all khadi while another subsidy at the same rate will be given to institutions and centres on their production and retail sales of khadi not exceeding Rs. 32,000 in a year. The second subsidy which will be in addition to the first, will be paid only to such institutions and centres which have shown an increase of 10 per cent in their production and retail sales of khadi as compared with those of 1955.

A sum of Rs. 5 lakhs is for the implementation of the Vastraswavalamban (cloth self-sufficiency) scheme during the current financial year. The amount is to be utilized for providing rebate on weaving charges incurred by the self-spinners and subsidy to recognized institutions for khadi woven by them under the scheme. A sum of Rs. 3 lakhs is for the expenditure on organizing peripatetic parties to train people in spinning and weaving. An expenditure of Rs. 1 lakh has been sanctioned for payment of honorarium for promoting hand-spinning in all parts of the country. A sum of Rs. 79,200 is to be utilized for conducting spinning classes in jails and children's and beggars' reformatories during the current financial year.

The Board has been given a grant of Rs. 2½ lakhs for subsidizing half of the cost of implements and accessories required for the development of the khadi industry through the Khaddar bhandars and centres recognized by the Board. A loan of Rs. 75,000 and a grant of Rs. 1½ lakhs are for the development of the khadi industry on intensive basis. The amounts are to be distributed to co-operative societies and registered bodies for meeting the cost of construction of godowns at 15 centres in various parts of the country.

A grant of Rs. 1½ lakhs has been given for the revival of arts such as khes weaving, Sambalpur curtain weaving, kani shawl, fine yarn spinning, kalamkari printing and patola weaving.

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For conducting research in khadi, a sum of Rs. 1½ lakhs has been placed at the disposal of the Board for being distributed to individuals or institutions.

A sum of Rs. 50,000 is to be utilized for payment of honorarium to workers engaged in the sale of khadi under agency system. An expenditure of Rs. 35,250 has been sanctioned for training in khadi salesmanship. A sum of Rs. 30,000 is for the purchase of khadi samples and for processing them.

Training Facilities in Government Institutions

According to the scheme for providing facilities for training scientific workers employed in laboratories maintained by the trade or private manufacturers, in Government research institutions, for achieving co-ordination and uniformity of standards, the next courses will be begun on July 1, 1956, at the following institutions:—

- 1 The Central Research Institute, Kasauli.
 - 2 The Central Drugs Laboratory, Calcutta.
 - 3 The Haffkine Institute, Bombay.
 - 4 The King Institute, Guindy.
 - 5 The Institute of Science, Bombay.
 - 6 The Veterinary Research Institute, Mukteswar.
- A fee of Rs. 100, payable in advance, will be charged from each candidate for the training. Applications for admission to these courses, accompanied by a treasury receipt for Rs. 7-8-0 credited under the head "XXVII-Medical-Miscellaneous" should reach the Director-General of Health Services, New Delhi, by May 31, 1956.

Revision of Electoral Rolls

The electoral rolls for the Assembly constituencies are being revised this year on the basis of the new constituencies as determined by the Delimitation Commission and it will be these new rolls that will be used for the General Elections due in 1957. The preliminary electoral rolls for the new constituencies in the districts of Chingleput, North Arcot, South Arcot, Salem, Coimbatore, The Nilgiris, South Kanara, Malabar and Tirunelveli in respect of areas where no house-to-house enquiry



The Kasturba Trust Gram Sevika Centre at Waini in Muzaffarpur district, Bihar, trains Gram Sevikas for the Central Social Welfare Board's Rural Welfare Programme.

Instruction in a craft by a trained craft teacher is accompanied by practical training in the craft.

was instituted are now being published. (A further announcement will be made about the publication of the rolls in other areas later.) The publication is being made by constituencies in the office of the Electoral Registration Officer concerned, viz., the Tahsildar or Deputy Tahsildar in cases where his office lies within the constituency and at a place within the constituency selected by him if his office lies outside the constituency. The electoral roll will be made available for inspection at the above places and notices to this effect will be displayed. The electoral roll for each unit, that is, for each village and class II panchayat and for each convenient locality or block in other areas, will also be made available for inspection in the local unit; and the notice of publication will also be displayed in the offices of class I Panchayats, Municipalities, Cantonments and Townships.

2. Persons qualified for inclusion in the rolls but who have not been so included are invited to put in their claims for such inclusion and any voter may prefer objection to the inclusion

of any person's name in the roll or to any particular in any entry in the roll. A person is qualified for inclusion in the electoral rolls if he or she is an Indian citizen and was not less than 21 years of age on the 1st March 1956 and resided or owned or possessed a dwelling house in the local area on that date and is not otherwise disqualified for such registration.

3. Claims should be made in the printed Form IV and objections in Form V available free of charge with the Electoral Registration Officers and also village officers, Firka Revenue Inspectors, Executive Officers of Class I Panchayats, Cantonment Boards and Townships and Commissioners of Municipalities. The claims and objections should be presented to the Revising Authority (viz., the Revenue Divisional Officer) or to the Electoral Registration Officer, or to the Officers mentioned above, or sent by post to the Revising Authority, not later than the date specified in the notice displayed for preliminary publication which will be 21 days after the date of such



A reception was given by the Prime Minister, Shri Jawaharlal Nehru, Chairman of the Sahitya Akademi, in New Delhi, to meet prominent writers in all major languages of India who are in the Capital in connection with the Radio Literary Forum.

Photo shows Mr. Faiz Ahmad Faiz, a Pakistani journalist and Urdu poet, who was one of the invitees, reciting some of the poems composed by him at the Prime Minister's reception.

publication. A claim should be signed by the claimant and unless it is sent by post, it should be presented by him personally or by an authorized agent.

A person desiring transfer of his name from the electoral roll of one local unit to another should prefer an objection to the inclusion of his name in the former roll and a separate claim for the registration of his name in the latter roll.

In cases requiring corrections of any entries in the roll such as wrong information about fathers' or husbands' name, spelling mistakes, printing errors and obvious clerical mistakes, it is sufficient if they are brought to the notice of the Electoral Registration Officer by a letter.

4. The Revising Authority will hold a summary inquiry into each claim or objection at the place and on the date notified to the claimant or objector who should attend the hearing with the evidence, which he wishes to adduce in support of his case. With reference to the order of the Revising Authority on the claims and objections, the final

MADRAS INFORMATION

More Milk Day

(Continued from page 3)

A public meeting was organized by the President of the Co-operative Milk Supply Union at Rajaji Hall on the evening of 13th April 1956. The Minister for Agriculture presided over the meeting in the unavoidable absence of the Governor due to indisposition and it was inaugurated by the Minister Sri A. B. Shetty, Minister for Health. Sri A. Palaniappa Mudaliar, Registrar of Co-operative Societies, and the Director of Animal Husbandry addressed the gathering on the various aspects of milk and livestock improvement in the State. It was emphasized that the Government have formulated several schemes for the development of dairy industry to be worked during the Second Plan period and with the co-operation of the public the Government would implement those schemes for increased production of milk in the State.

Prizes were awarded to the best exhibits selected at the Cattle Show held on 12th April 1956 by the Minister for Agriculture. A variety entertainment organized by the President of the Co-operative Milk Supply Union was well attended.



Sri M. Bhaktavatsalam, Minister for Agriculture, presenting a sewing machine to the Women's Welfare Association of Sriperumbudur.

Agricultural Topics

Tackling Soil Erosion

To-day Soil Conservation is recognized as a problem of national importance as it is one of the basic factors for intelligent land use and for conservation of the irrigation sources. Soil erosion has been a locally acute problem here and there for many decades; but as a widespread evil, it has been recognized only in recent times. This was due to the mounting demand for more and more land for cultivation which has led people to break up land on slopes and vulnerable sites causing serious erosion. Under the drive for increased food production, wood lands and marginal lands were stripped of their vegetal cover, and brought under the plough for indiscriminate cultivation. This trend resulted in intensive cultivation of potatoes on steep slopes in the Nilgiris, often without safeguards to prevent erosion of the soil. Erosion has, in consequence, become a serious menace particularly in the Nilgiris.

Legislation against Erosion

The Government have since passed the Madras Hill Stations (Preservation of Trees) Act, 1955, into law. This Act empowers the Government to regulate the cutting of trees and the cultivation of land on hill slopes. While cultivation on land with a slope of more than one in three for any purpose other than the growing of trees has been totally prohibited, no person can use any land with a slope of less than one in three for new cultivation except with the previous permission of the Collector, who may, while granting such permission, impose such conditions as he may deem fit including those relating to Soil Conservation measures. Existing cultivators on lands with a slope of less than one in three have also been given one year's time from the date of coming into force of the

Act to adopt the prescribed Soil Conservation measures to qualify themselves for obtaining the necessary permission from the Collector to carry on the cultivation. This Act, it should however be remembered, is applicable only to the municipal areas of certain Hill Stations like Ootacamund and Coonoor, and the problem of preventing tree cutting and the opening of steep slopes in other areas still remains to be solved. Further, prevention of denudation of vegetal cover is only one aspect of the problem of Soil Conservation. The other preventive measures are contour-bunding, trenching, terracing, gully plugging and strip cropping, which have all got to be enforced. We were therefore considering whether the Madras Land Improvement Schemes (Contour Bunding and Contour Trenching) Act, 1949, could be suitably amended to serve all these purposes but we have been advised that neither tree cutting nor other agronomical practices can be brought within the ambit of the existing Act. This Act, besides, is found to be cumbersome and defective in some respects. It has therefore been considered necessary to replace the existing Act by a suitable comprehensive legislation on Soil Conservation. The Central Soil Conservation Board has prepared a model Soil Conservation Bill in consultation with the Central Law Ministry and has asked all State Governments to adopt this Bill or to make suitable amendments to the existing State Acts on Soil Conservation. The Model Bill contemplates the constitution of a State Land Improvement Board and District Land Improvement Committees on a statutory basis and conferring on them certain powers in the matter of preparation, approval and execution of Soil Conservation works. All these are far-reaching provisions.

this subject might be, nothing tangible could ever be achieved unless there is a deep public awareness of the dangers of the situation and the duty we owe to ourselves and to posterity of keeping the soil inviolate and at the highest potential of productivity.

Achievements under the First Five-Year Plan

Let me now turn to a brief consideration of the projects for Soil conservation which we undertook during the First Five-Year Plan and those under contemplation for the Second Plan. In the First Five-Year Plan a provision of Rs. 29.81 lakhs was made to tackle an approximate area of about 72,000 acres. But the actual expenditure has been only Rs. 6.30 lakhs and the physical achievement about 15,750 acres. The work was mainly in Ketty Valley, Nanjanad, Kammandhu in the Nilgiri district and Mulanur in Coimbatore district. Work in Kothamangalam in the Lower Bhavani area and Kangayam and Vellakoil has recently been started and preliminary work on the comprehensive Nilgiri Scheme has been begun. Various reasons have been put forward for the slow progress in the First Five-Year Plan, the chief among them being the lack of trained personnel. We have since taken steps to train in advance the required number of personnel at the Training Centres established by the Government of India in the various regions of the country. Another factor that was responsible for the poor achievement was the time involved in correspondence for obtaining the sanction of the Central Soil Conservation Board and the Government of India. I have pointed this out at the meeting of the State Agricultural Ministers held at Delhi last month and the need for evolving a simple procedure so that the works might be expedited, and we are awaiting the decision of the Government of India in the matter.

I would however like to emphasize that however perfect legislation on

In the Second Five-Year Plan.

In the Second Five-Year Plan, we have made a provision of Rs. 167.71 lakhs on the agricultural side to tackle an approximate area of 25,000 acres in the Nilgiris, 1,250 acres in the Kodaikanals and about 35,560 acres in the plains in the Coimbatore, Salem, South Arcot, North Arcot, Tiruchirappalli, Malabar, Chingleput and Tirunelveli districts. On the forest side, we have made a provision of Rs. 118.08 lakhs for reclamation of eroded ex-panchayat reserved forests by afforestation, extension of casuarina plantations to help stabilization of sand dunes and to prevent valuable agricultural lands from being bogged up by blown-up sterile sand, and afforestation of low hill areas to prevent loss of soil. If the progress in future is going to be at the same rate as it has hitherto been, at the end of five years we may find that we have done little to solve this problem. It is therefore necessary that we should apply our mind to the various difficulties which retarded or impaired the progress during the First Five-Year Plan and take suitable steps and adopt methods by which quick results could be achieved. The first essential for speedy execution is a proper survey of the areas and preparation of detailed scheme reports. The next is the employment of competent and energetic officers who must know their job and every bit of the area tackled. Above all, is the need for previous propaganda to educate the ryots. In as much as these are community projects in the real sense of the term, business like methods in administration, proper maintenance of accounts and efficient supervision are necessary so that the works may not be shabbily done and the ryots' money is not wasted. I hope that everyone concerned from the top-most officer down to the lowest maistry will keep these things in mind.

Importance of Soil Conservation

The importance attached to Soil Conservation will be evident from the fact that the Planning Commission has made a provision for all-India of Rs. 26.83 crores in the Second Plan against a provision of Rs. 3.25 crores for the First Plan. The Union Ministry of Food and Agriculture convened an *ad hoc* meeting at Delhi of the State Ministers in charge of Soil Conservation during the end of last month to take stock of the situation and consider the various problems. You

would have no doubt read from the papers the proceedings of that meeting. The problem is gigantic and people's co-operation is vital. Although legislation will be essential in certain cases to enforce Soil Conservation measures, by and large it is the willing co-operation of the farmers and the availability of a large body of trained personnel that will make it possible to carry on the programme to a successful conclusion. As a first step in this direction we have already imparted training to the Village Officers and Revenue Inspectors in the Nilgiris and taken steps to train the Village Officers, Revenue Inspectors, Gram Sevaks, Assistant Project Officers, Block Development Officers in the Coimbatore district so that these persons who are in daily contact with the ryots may pass on their knowledge and create the necessary awakening in the minds of the farmers. A scheme for the training of 100 ryots in the Nilgiris in Soil Conservation has also been sanctioned recently. The Government of India have also under consideration proposals for effective propaganda and publicity on Soil Conservation, in order to educate the ryots on the correct land-use practices. The question of asking the Government of India to start a Soil Conservation Demonstration Centre near Kotagiri besides the Pilot Schemes at Ootacamund, Nanjanad and Kammandhu is under consideration. Let us hope that with all these measures we shall be able to arouse public consciousness against the misuse of land and the proper conservation of our crop lands, forest and low hill areas and above all the catchment areas of our rivers and

streams. Let it be remembered that erosion annually removes probably about twenty times the plant food in soil as all the crops grown in the State take away. Millions of tons of soil are discharged into the rivers and streams and finally into river dams or to the sea. While you travelled to Ootacamund you might have noticed the muddy waters of the Coonoor and Kallar rivers that finally reach the Bhavanisagar carrying away tons of soil. Similar losses are occurring everywhere at every rainfall and this continuous soil wash profits no one but is on the other hand a menace to our irrigation works. Millions of tons of plant food are thus lost and, estimated at the current fertilizer prices, the loss would be colossal and staggering. Our agriculture cannot withstand such losses indefinitely. Much of this loss is preventable as we now know and the destructive tide must be stemmed. Erosion strikes at the root of our prosperity. It is a problem of the farmer, the forester, the builder of waterways and reservoirs and in fact of every thinking citizen. In large part it is a problem for the Community, the State and the Nation. In the permanent improvement of our agricultural production and livestock, and of our waterways and of our forests and to maintain an industrial economy which we hope to build up, our efforts must begin on the land. Men may come and go, our crops may perish by drought or storm, our livestock may die, but the land of our country never dies. Let us save it from impoverishment which is worse than death and thus save ourselves. That way lies wisdom.

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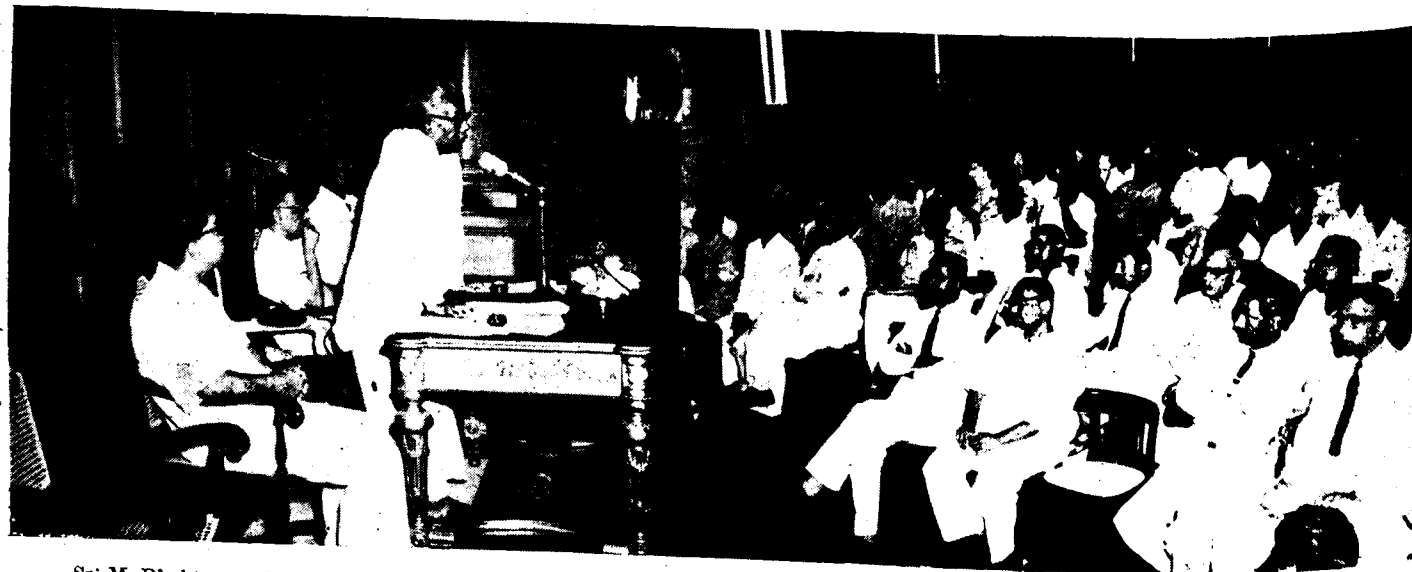
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From the speech of the Minister for Agriculture.



Sri M. Bhaktavatsalam, Minister for Agriculture, inaugurating the Seminar for Extension Officers for Agriculture and Animal Husbandry at the Rajaji Hall on 15th May 1956.

Improving Agricultural Production

SRI N. E. S. RAGHAVACHARI, I.C.S., Additional Development Commissioner.

The Fifth Development Commissioners' Conference on Community Projects was held at Nainital from the 5th to the 7th May. It may be recalled that the first Community Projects were started in 1952 and the National Extension Service in 1953. It has been the practice for the Development Commissioners of all the States in India who are charged with the implementation of the Community Project and National Extension Service Programmes to meet once a year to discuss the working of the programme, suggest improvements and generally to exchange experiences. The four previous conferences were presided over by Sri V. T. Krishnamachari, Deputy Chairman, Planning Commission, who may be considered to be the father of the Community Development and the National Extension Service Programmes in India. Unfortunately he would not preside over this conference due to ill-health and Sri Sampurnanand, Chief Minister, Uttar Pradesh, presided.

Before this conference there was a meeting of the National Development Council at Delhi on the 1st and 2nd May. The Council consists of Chief Ministers of all the States, the Union Ministers dealing with Development

departments and is presided over by the Prime Minister. I had the privilege of attending the meeting of this Council and listening to the proceedings.

One of the important questions discussed at the National Development Council was how agricultural production could be improved through the agency of the National Extension Service and Community Development programme. As you know the total cost of the Second Five-Year Plan is in excess of the total resources which the Government can realise. The Government are, however, determined to implement the programme through deficit financing in the hope that later as the national income of the country increases this deficit can be made up. But if this plan is to be successfully implemented, it is important that the prices of important commodities are not allowed to rise over the present level. The Prime Minister was very much disturbed by the rising trend of increase in prices, particularly of food-stuffs. He was of the view and it was endorsed by all the Chief Ministers, that if the plan is to succeed, there should be an increase in agricultural production, so that the prices are kept at a steady

level. While the plan provided for an increase in production by 15 per cent, it was considered that this should be stepped up to 40 per cent. The Prime Minister pointed out that the average yield per acre was very low in India when compared with other countries and he felt that if the agriculturist in India is determined to increase his production and works hard it should be possible to increase the production by 40 per cent.

In the N.E.S. and Community Development programme, we have Grama Sevaks who are trained in agriculture. If they concentrate on the agricultural aspect and convince the ryot that the yield from his land can be increased by adopting improved methods, there should be no difficulty in achieving the target of 40 per cent increase in agricultural production.

This important question of improving agricultural production was one of the important subjects which was later considered by the Development Commissioners' Conference. The Development Commissioners were unanimous that it would be possible to increase the production to the target aimed at. There was a general feeling that at present the Grama Sevaks who is

specially trained in agriculture, does not devote sufficient attention to this important problem. Very often he devotes more attention to the provision of amenities like roads, wells, etc. In carrying out the programme of amenities he spends a lot of time on the selection of works, assisting in the collection of contributions and ensuring the prompt execution of works by the local institutions. While the importance of the works programme was not to be minimised, the general feeling was that the works programme is to be treated only as a supplement to the production programme. One section even felt that by reducing the allotment for works, the Block Development staff would probably concentrate more on production. The Development Commissioners were unanimously of the view that if the Grama Sevaks concentrate on agriculture and convince the ryot that his production can be increased by adopting improved methods, there should be no difficulty in achieving the target of 40 per cent increase in agricultural production.

Another important problem facing the Development Commissioners was the revision of the block budgets so as to keep the total expenditure to the sum of Rs. 200 crores allotted by the Planning Commission as against the estimated cost of Rs. 260 crores. In considering this problem the Development Commissioners were guided by a number of important factors. Firstly, the decision already taken by the National Development Council that the entire country should be covered by the N.E.S. programme during the period of the Second Plan should stand. Secondly, about 40 per cent of the N.E.S. blocks should be converted into Community Development blocks during the second year. This programme of conversion should be so phased that no N.E.S. block which has worked for a full period of three years will remain unconverted, provided that it reaches the level of performance suitable for such conversion.

Based on these considerations the Development Commissioners' Conference agreed to a revision in the budgets for the National Extension Service and Community Development blocks. At present a N.E.S. block has a budget of Rs. 7½ lakhs for a period of three years. Of this a sum of Rs. 3 lakhs is for provision of short-term loans, 1 lakh for loans for minor

irrigation and 3½ lakhs for establishment, social education, grants-in-aid and local works. Under the new budget only a sum of Rs. 2.8 lakhs will be available for establishment, local works, etc., Rs. 60,000 for loans for irrigation and Rs. 60,000 for construction of staff quarters. The total comes to Rs. 4 lakhs and besides this it is expected that the present level of Rs. 3 lakhs for short-term credit will be provided through the Reserve Bank. The total budget for a Community Development block has now been reduced from Rs. 15 lakhs to 12 lakhs. This reduction has been effected by the reduction of the loan provision of 7½ lakhs to Rs. 4½ lakhs. The amount allotted for non-loan items remains the same, namely, Rs. 7½ lakhs. It should, however, be noted that when a N.E.S. block is converted into a Community Development block, the expenditure already incurred in the N.E.S. stage is deducted from the budget of the Community Development block. The revised budget will come into effect from 1st April 1956, i.e., it will apply to all N.E.S. blocks taken up on 1st April 1956 and thereafter and also to all blocks converted from that date. It is expected that about 3,800 blocks will be taken up during the Second Five-Year Plan to cover the

whole country and 1,120 of these blocks will be taken up for conversion as Community Development blocks. The probable figures for Madras are 315 N.E.S. blocks in the Second Five-Year Plan period out of which 123 will be taken up for conversion.

The Conference was also faced with the problem of keeping up the tempo of work in the Community Development blocks which will have completed their period of operation. These will become permanent N.E.S. blocks with the basic staff of the N.E.S. continuing in position. In addition to this the Conference recommended that there should be a provision of Rs. 25,000 for local works and Rs. 5,000 for social education per block per year.

I have already stated that the Conference emphasised the need for increase in agricultural production. Another important recommendation of the Conference was that village industries or cottage industries should be developed so as to provide for increased employment to the rural population. With increased agricultural production and increased opportunities for employment the standard of living of the villager will increase substantially during the period of the Second Five-Year Plan.

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SRI A. B. SHETTY, Minister for Health.

Most of our hospitals are obliged to admit patients in excess of their sanctioned bed strength. The hospital staff feel handicapped in their work on account of the extra burden thus thrown on their shoulders. Many of our hospital buildings are old and outmoded. The provision of medical relief has gone on in a haphazard way in the past. Large areas in the countryside are unserved by medical institutions and qualified practitioners. There is increasing demand for expansion of existing hospitals as well as for the establishment of new dispensaries and hospitals. Hereafter we must have planned development of hospital service. Recently, Tiruchirappalli and Kozhikode have had new hospitals built at their district headquarters. The headquarters hospitals at Mangalore are having a big building programme to make them suitable for teaching purposes. A new hospital building has been put up at Tuticorin and recently opened for use. Erode is being provided with a hospital at considerable cost, and it is now under construction. A bigger and better building on a different site is under construction for the R.S.R.M. Lying-in hospital in Madras City and the hospital is already functioning in the portions which have been completed. Additions and improvements are being made to the hospital at Madurai with a view to develop it into a full-fledged teaching institution. Provision has been made for additional buildings and equipment so as to improve some of the Madras City and mofussil hospitals.

Provision for new hospitals under Second Plan.

In the Second Five-Year Plan Rs. 121.81 lakhs have been provided

for improvement of district headquarters hospitals and Rs. 123.21 lakhs for taluk headquarters hospitals. Seventy-five of the taluk headquarters hospitals have already been taken over by the Government from the local bodies. Six taluk hospitals including the one at Tirukkoilur are being taken over this year and the remaining twenty-one taluk hospitals will be provincialised within the next three years. Ninety rural dispensaries will come under Government during the Second Five-Year Plan period, beginning with eighteen this year. One hundred and forty health centres at the rate of 28 per year will be set up in the National Extension Service Blocks and 600 Maternity and Child-Welfare Centres at the rate of 120 each year will be established in rural areas during this Plan period.

In South Arcot, there are five Government hospitals with 284 beds, three Local fund hospitals with 40 beds, 17 Local Fund dispensaries and 28 Rural dispensaries. The District Tuberculosis Association has undertaken the construction of a Tuberculosis Sanatorium at Capper Hills near Cuddalore with the contributions obtained from various sources.

Leprosy Relief.

South Arcot is unfortunately the worst affected district in our State in regard to leprosy patients at our hospitals. Government have arranged to train 100 doctors in successive batches of six for a period of one week at the Central Leprosy Research and Teaching Institute at Tirumani, Chingleput, so that they may be better able to diagnose and treat cases of leprosy. A special Leprosy

Scheme sponsored by the Government of India is functioning at Tirukkoilur. The Mission Home at Vadathorasalur provides accommodation for 299 leprosy patients and the Kasturba Gandhi Nivaran Nilayam has beds for 54 patients. The other schemes for leprosy relief in this district include a number of clinics which are run by the Hind Kusha Nivaran Sangh, the Kasturba Kusha Nivaran Nilayam and the Belgian Leprosy Unit. Sri T.N. Jagadisan, the indefatigable Secretary of the Hind Kusha Nivaran Sangh who has just returned from a meeting of the Sangh at Delhi has sent to Government a skeleton of a Comprehensive Leprosy Control Scheme which he has drawn up for this highly endemic district. If this scheme of mass sulphone therapy can be carried to every affected village in South Arcot and worked successfully, similar work can be adopted for endemic areas in other districts also and we may hope to realise the fond dream cherished by Sri Jagadisan of eradicating leprosy from this State within a measurable distance of time.

Improved facilities for Diagnosis and treatment.

There is need not only for more hospitals but also for better standard of work in our hospitals. Junior Medical Officers are now being given four or six months' training in batches in our Madras Teaching Hospitals in surgery, anaesthesia, radiology and pathology and they are being posted to district headquarters hospitals. Arrangements have been made for a similar course of training for women doctors, in obstetrics and gynaecology in Madras since there is a great need for such trained personnel in mofussil hospitals

Modern methods of treatment require early diagnosis by means of X-ray and laboratory tests. It is proposed to improve facilities for such diagnosis in the hospitals at all district centres. We are having certain special departments in the district hospitals, many of which are manned by honorary doctors. Medical men with specialist training are not available in sufficient numbers in many of the mofussil places. All district hospitals should have paid or honorary specialists for E.N.T., Eye, Tuberculosis, Pediatrics, Obstetrics and Gynaecology, V.D., Skin and Leprosy and Dental work. It seems necessary to give a short course of training in Dermatology and to have one assistant surgeon with special training in Orthopaedics in each district headquarters hospital. Advice on family planning should be made available at all our hospitals.

The upgrading of the out-patient service

Our hospital service is over-weighted in favour of the in-patient. The out-patient clinics are generally small and

too crowded for efficient work. The upgrading of the out-patient service, with senior physicians and surgeons attending to difficult cases and guiding junior officers in their work, would help proper diagnosis and treatment of disease in its incipient stage and reduce the need for hospitalisation and the heavy cost it involves. Medical check-ups at regular intervals will prove a major factor in preventive medicine. We have to consider the feasibility of providing for such check-ups in our city hospitals and district headquarters hospitals.

Kindness and Craft of Healing

The nursing care given to the patient, the diet he gets and the sympathy, kindness and courtesy shown by the medical and non-medical staff determine to a great extent the cure or relief obtained by sick people in the hospitals. This aspect of the craft of healing must be well understood and properly attended to by all the hospital staff. The hospital must establish friendly relationship with the patient and his relations



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Industries

Industrial Relations in Madras State

SRI V. BALASUNDARAM, I.A.S., Commissioner of Labour, Madras.

It is generally recognized that the prevention and settlement of industrial disputes and the establishment of peace and prosperity in industry depend upon harmonious industrial relations. With increasing industrialisation all over the world, the problem of industrial relations has assumed tremendous importance in recent years. A wise and intelligent policy of industrial relations cannot be brought about overnight. It is the outcome of a slow and gradual evolution. By a process of rapid industrialisation India has become one of the leading industrial countries of the world. Political independence accompanied by the First Five-Year Plan gave an impetus to further industrialisation and there is still greater emphasis on industrialisation in the Second Five Year-Plan. It is of vital importance that the progress in industrialisation should result in a progressive improvement in the economic conditions of industrial workers.

The causes of trade disputes are many and varied. Where employers representing capital and workers representing labour are brought together in a common industrial undertaking it is inevitable that in their endeavour to promote their respective interests they should come into conflict with one another. Broadly speaking such disagreement arises over the rates of wages, hours of work, leave, bonus and other conditions of employment. It also arises over questions of dismissal, retrenchment and victimisation of workers. A further cause of industrial unrest is the refusal of employers to recognise unions of their employees. The demand of trade union for a 'closed shop' and their claim to have a voice in deciding the methods of production or management of the undertaking often lead to trade disputes. A strike takes place when the workers withdraw their labour and

a lockout occurs when the employers close their gates. In either case the consequences are serious and they affect not only the employers and workers but also the general public.

While it is difficult to say how far the State should interfere in the sphere of industrial labour, it is obvious that in India, as in other advanced countries, the State has, to a considerable extent, intervened by legislation and administrative orders for regulating the conditions of employment of industrial workers. Nevertheless, there are still many problems of a controversial character concerning the conditions of employment of industrial workers which remain outside the purview of existing statutory enactments, and must therefore be settled between the employers and workers or between their respective organisations. Experience has shown that owing to the peculiar and delicate nature of the relationship that exists between the employers and workers they do not always see eye to eye with each other in regard to their problems. Herein comes the work of the Labour Department.

The problems of industrial relations are sought to be resolved in three ways, viz., (1) settlement by direct negotiations, (2) State assistance, and (3) State regulation.

It is the policy of the Government to encourage the parties to settle their disputes by direct negotiations. This method which is otherwise known as self-government in industry is not possible without sound industrial organisations. Hence the importance of strong trade unions and employers' organisations and the policy of the Government to encourage healthy trade unionism. It is unfortunate that trade unions in this State except for a few, are not organized on proper lines. Lack of experience in organi-

sational work, inadequate leadership and fear of victimisation by employers have, to a very great extent, retarded trade unionism. The real danger in outside leadership seems to be the attempt of persons of different political ideologies to capture the workers by starting rival unions. Obviously this is not a move in the right direction as far as trade unionism is concerned. On the other hand, some employers by indirect methods sponsor or favour rival unions with a view to disrupting the unity and solidarity of the workers. In spite of all these difficulties, the trade union movement in this State has been a powerful factor in the social and economic field and has influenced labour conditions and policy to a considerable extent. Important trade unions and trade union leaders are generally consulted by the State Government on matters of vital interest to labour. They are also represented on the corporations and committees set up by Government from time to time.

The total number of registered trade unions as on 1st April 1955 in the Madras State was 653 with a membership of 166,384. The existence of rival unions within the same industry and within the same establishment has been the bane of the trade union movement. As these unions seem to have in their mind only their group or party advantage, the welfare of labour has suffered to a large extent. Political ideologies rather than the economic well being of the workers seem to dominate the activities of some of the trade union leaders with the result that the real problems of the workers are lost sight of. The question of providing for compulsory recognition of a single trade union in each establishment is now engaging the attention of the State Government to counter the baneful rivalry among the unions in this State and to provide facilities for collective bargaining

through the medium of joint negotiating machinery.

The employers' organisations, on the other hand, are generally well organised. The main objects of these organisations are to establish and maintain harmonious relationship between labour and capital, to secure proper representation to their members in the Central and State bodies and to nominate their delegates and advisors to the International Labour Conferences, etc. The principal industries, viz., cotton textiles, tea plantations, etc., are well organised and are able to represent their points of view on labour matters satisfactorily.

It is the policy of the State Government that disputes concerning wages and conditions of employment should be settled as far as possible by the parties themselves through direct negotiations. However, the parties have not so far come to the expectations of the Government in this regard. Very little progress has also been made in the direction of setting up voluntary joint negotiating machinery in industry. Except in a few large establishments, there is hardly any collective bargaining, much less any established disputes procedure between employers and trade unions in this State. The Industrial Disputes Act provides for joint consultation at the level of the industry through the medium of Works Committees in each establishment, but in actual practice these Works Committees have not been working satisfactorily.

The organisation of State assistance to industry is of special importance. The officers of the Labour Department assist the parties in the formation and maintenance of Works Committees and in the prevention and settlement of disputes. Normally the methods adopted for this purpose fall into three categories—conciliation, adjudication and occasionally and in important cases, arbitration. The salient features of conciliation work done by the Conciliation Officers can be briefly stated. The Conciliation Officer acts as an intermediary between the disputing parties and tries to bring about a settlement of the dispute. A Conciliation Officer is not an arbitrator and he has no power to impose his decision on the parties. It is undoubtedly a difficult job requiring abundant patience, resourcefulness, tact and aptitude for the work. Whenever disputes are raised by organised trade

unions the Conciliation Officer tries to find out the steps taken by the parties for settlement of the dispute voluntarily. If the workers are already on strikes his efforts are directed in the first instance to get the workers back to work, as no negotiations can be carried on with the demagogues sword of strike hanging over the heads. During a strike the Conciliation Officer is in touch with both the parties to discover and clear mistakes and misunderstandings that may exist. When voluntary settlement by negotiation between the parties fails, the Conciliation Officer calls for a conciliation conference consisting of the employers and trade union leaders and tries to find a common ground to arrive at a settlement acceptable to both the parties. Wherever workers are unorganised, the Conciliation Officer gets into touch with the spokesmen of the workers and tries to bring about a settlement by arranging a joint meeting with the employers and workers' spokesmen. As the principle of conciliation is voluntary, Conciliation Officers mainly use their good offices to induce the parties to come to an agreement without using any element of force or coercion. It is gratifying to note that as many as 113 out of a total of 232 strikes in this State were settled by the Conciliation Officers during 1955 not to speak of the large number of other disputes dealt with by them. Apart from the normal conciliation work at the departmental level some important disputes are also settled at the Government level through the good offices of the Minister.

Of late, demands for adjudication rather than for settlement of disputes by mediation and conciliation have become too common among workers and their leaders in spite of the earnest efforts of the State Government for securing cordial relationship and goodwill established between the employers and labour by a proper understanding and appreciation of each other's problems through direct negotiations and collective bargaining. Where it is not possible to resolve any dispute by conciliation, the Government if they so decide refer the dispute to an Industrial Tribunal for adjudication. For this purpose the State Government have constituted two standing Industrial Tribunals, one at Madras and the other at Coimbatore. The Government have also appointed a

Special Industrial Tribunal for adjudicating into the disputes in a large number of plantations in the State. After hearing the parties and investigating their claims and counter-claims, the Industrial Tribunals submit their awards to Government which after publication in the Gazette become enforceable under law and binding on the parties.

Apart from voluntary conciliation and compulsory adjudication, there is also provision in the Industrial Disputes Act for the constitution of Courts of Enquiry wherever Government are satisfied that an exhaustive enquiry into the conditions of any particular industry or into any matter appearing to be connected with or relevant to an industrial dispute is necessary. But this provision for a Court of Enquiry is not generally resorted to in this State. The Government have, however, constituted tripartite committees to enquire into the conditions of employment of workers in Textile Mills, Engineering Firms and Type Foundries and Cement Factories. These committees have made exhaustive enquiries and submitted their reports to Government. Further, the principle of settlement by voluntary arbitration though not provided under the Industrial Disputes Act has been adopted with good results at the request of the parties for settlement of certain disputes, e.g., in the Textile Mills of Coimbatore and the B. & C. Mills at Madras.

While it is desirable to encourage the determination of wages and conditions of employment by voluntary joint negotiating machinery and through State assistance, the responsibility of the State in regulating the conditions of employment wherever necessary by statutory provisions cannot be over-emphasised. The various legislative measures adopted by the State are intended to guarantee certain minimum standards of wages, conditions of work and employment for industrial workers. But they are also useful from the point of view of industrial relations as they narrow down to that extent the sphere of differences and disputes between employers and workers and help in maintaining industrial peace.

Protective measures have been placed on the statute book for securing to labour its minimum requirements. Necessary safeguards have been provided in the Industrial Disputes Act

against unfair labour practices by the employers by restricting their right to take disciplinary action against workers or altering their conditions of service during the pendency of proceedings before a Conciliation Officer or a Tribunal. The Act also requires 14 days' notice before the workers could go on strike or before an employer could declare a lockout in the case of public utility services. The Industrial Disputes Act was amended in 1953 and 1954 providing for payment of compensation equivalent to half the wages and dearness allowance normally admissible to the employees in factories, mines and plantations if they are deprived of employment by the employer on account of shortage of coal, power, raw materials or accumulation of stocks or breakdown of machinery or for any other reason. The employers are also required to pay the employees who are retrenched after putting in a continuous service of one year compensation calculated at the rate of 15 days' wages for each completed year of service besides a month's notice or wages in lieu of notice. The Act also provides for the recovery of monies due to the workers from the employer as arrears of land revenue. The provisions of the Industrial Disputes Act have also recently been extended to cover the working journalists by the Working Journalists (Conditions of Service and Miscellaneous Provisions) Act, 1955, which aims at regulating the hours of work and conditions of service of the working journalists.

The Workmen's Compensation Act, 1923, seeks to provide for payment of compensation by employers to their workmen on a prescribed scale according to the nature and extent of the loss of earning capacity for injuries caused to them as a result of accidents arising in the course of employment and to such other employees as may contract industrial diseases. The Factories Act, 1948, has kept pace with progressive industrial countries of the West in regard to hours of work, standards of safety, health and welfare of workers. The Payment of Wages Act, 1936, seeks to ensure regular payment of wages to the workers in factories, plantations, transport services, etc., getting below Rs. 200 a month and provides safeguards against wrongful deduction from wages. The Industrial Employment (Standing Orders) Act, 1946, requires the employ-

ers in industrial establishments employing 100 or more persons to define with sufficient precision the conditions of employment under them and to make them known to their workmen. The Minimum Wages Act, 1948, provides for fixation and payment of minimum rates of wages to the workers employed in sweated industries which have been specified under the Act. Under this Act minimum rates of wages have already been fixed in this State for the employments in woollen and carpet making or shawl weaving, rice, flour and dhall mills, tobacco including bidi making, plantations, oil mills, local authorities, public motor transport, tanneries, and leather manufactories, etc. The Madras Maternity Benefit Act provides for the payment of maternity benefit to women workers. The Madras Shops and Establishments Act which came into force in 1948 regulates the conditions of work in shops, commercial establishments, theatres, restaurants and other establishments, provides for health and safety of employees, grant of holidays with wages and safeguards against unjust termination of service. The Plantation Labour Act, 1951, is a comprehensive piece of legislation intended to meet the peculiar needs of plantation workers. It aims for the first time at regulating the conditions of work in plantations by way of working hours, leave with wages, medical facilities, welfare measures in the shape of canteens, creches, drinking water, recreational facilities, sickness and maternity benefits, etc. The Employees' State Insurance Act, 1948, gives full protection to wage earners against some of the economic risks to which they are exposed. It formulates for the first time an integrated scheme of insurance against sickness, maternity benefit and employment injury applicable to all workers in perennial factories. The Employees' Provident Fund Act of 1952 has benefited employees in six major industries, viz., Cement, Cigarette, Electrical, Mechanical and General Engineering Products, Iron and Steel, Paper and Textiles.

We are now on the threshold of a great industrial future. The Second Five-Year Plan has been formulated with reference to the following principal objectives :—

(1) a sizeable increase in the national income so as to raise the standard of living in the country ;

(2) a rapid industrialization with particular emphasis on the development of basic and heavy industries ;

(3) a large expansion of employment opportunities ; and

(4) reduction of inequalities in income and wealth and a more even distribution of economic power.

The revision of the existing trade union legislation to restrict the number of outsiders to give recognition to trade unions and to protect the office-bearers against victimisation, greater emphasis on direct negotiations and voluntary arbitration as methods of settlement of disputes, increased association of labour with management for improvement of industrial relations and for increasing productivity through discussions in the councils of management in large establishments, with equal number of representatives of workers and managements, extension of the system of the payment by results and the extension of the Employees' Provident Fund Scheme to certain other industries are the high-lights of the labour policy during the Second Five-Year Plan period. It is also proposed to afford protection to the workers in the construction industry, transport services and shops and establishments and to secure improvement of their conditions of employment through fresh legislation.

Though economic systems differ in various advanced countries, the nature of labour problems has been more or less the same. It is therefore to be expected that whatever may be the pattern of our economic system in future, we will continue to have the labour problems for solution. However, with goodwill and understanding on the part of employers and workers, it should be possible to find satisfactory solutions to the problems.

Tit-bits

A provision of Rs. 5 crores has been made in the Second Five-Year Plan for rural housing programmes.

The Government of India have so far approved 1,168 road works under the Village Road Development Co-operative Scheme.

Rubber production in India stood at 44.7 million lb. during 1953 as against 36.0 million lb in 1952.

Rehabilitation

Service to Ex-Servicemen Expenditure of Post-War Reconstruction Fund

After the cessation of the hostilities of the World War II, the Government were faced with the problem of resettlement of ex-servicemen. The Government of India constituted the Post-War Services Reconstruction Fund for the collective benefit of those who served in the ranks or as non-combatants in the Defence Services during the War 1939-46. A share of Rs. 1,86,43,138 was transferred to Madras State in 1946 for being administered by a Committee to be formed for Madras State for the benefit of Madras Defence Service personnel.

The Madras P.W.S.R. Fund was constituted in August 1946. The Committee consists of the Governor as Chairman in his personal capacity and five members. The following are the present members of the Committee :—

- 1 The Minister for Health.
- 2 The General Officer Commanding, Madras Area.
- 3 Dr. A. Lakshmanaswami Mudaliar.
- 4 Dr. Rm. Alagappa Chettiar.
- 5 Srimathi Mary Chubbala Jadhav.

The Fund has been rendering help in various directions to rehabilitate ex-servicemen who have returned to civil life. From its inception in 1946 till December 1955, the Fund has given grants to the extent of Rs. 1,19,40,807-15-11 and loans to the extent of Rs. 28,06,255.

The major schemes financed by the Fund are (1) educational concessions to children and dependents of Defence Service personnel, (2) medical facilities to ex-servicemen, and (3) opening of motor transport societies, land colonisation societies and timber and metal workshops for the resettlement of ex-servicemen.

Educational concessions

The Government of Madras sanctioned a scheme for further education

of ex-servicemen from 1946-47 and the Government of India undertook to meet 50 per cent share of the expenditure involved in the scheme. The Government discontinued the scheme from 1950-51 as the Government of India's 50 per cent share of expenditure was not forthcoming. The P.W.S.R. Fund met this expenditure in full during the years 1950-51 and 1951-52. The concession was extended to post-secondary but non-University courses of study also. The whole scheme was reviewed again in the light of the fact that most of the demobilized persons who were released from the Army about 9 years ago would have completed their education and therefore the scheme was discontinued from 1952-53. The total amount spent in pursuance of this scheme is Rs. 1,05,832-8-9.

Up to 1948-49 the Government were granting educational concessions to children and dependents of ex-service personnel. From 1949-50 the Government stopped the concessions to certain categories of pupils owing to paucity of funds and the P.W.S.R. Fund agreed to pay towards educational concessions, to pay towards boarding charges from 1950-51 to such of the students who had become ineligible for Government had become ineligible for Government had become ineligible for Government examination fees on behalf of children and dependents of Defence Service personnel. A sum of Rs. 38,05,172-15-3 has been spent on educational concessions and boarding charges for the period 1950-51 to 1953-54 and the number of students benefited is 41,249. A sum of Rs. 23 lakhs is estimated to be the expenditure for the years 1954-55 and 1955-56 and the number of students benefited would be roughly 18,400.

Medical facilities

The Committee thought that special arrangements should be made for

ex-servicemen suffering from T.B. and leprosy. To provide medical facilities for such ex-servicemen, three wards of six beds each were built in the Lady Willingdon Leprosy Sanatorium, Tirumani, at a cost of Rs. 25,000 for the admission and treatment of ex-servicemen. Special wards for ex-servicemen suffering from tuberculosis were constructed in the following sanatoria at a total cost of Rs. 2,09,920 :—

- (1) Government T.B. Sanatorium, Tambaram.
- (2) Ramalingam T.B. Sanatorium, Perundurai.
- (3) Malabar T.B. Sanatorium, Pariyaram.
- (4) Mahatma Gandhi Memorial T.B. Sanatorium, Tanjore.
- (5) Rajaji T.B. Sanatorium, Tiruchirappalli.
- (6) Visrantipuram T.B. Sanatorium, Rajahmundry.

In addition, the Fund is meeting treatment charges at the rate of Rs. 100 per mensem in respect of T.B. patients and at the rate of Rs. 50 per mensem (Rs. 40 treatment charges and Rs. 10 pocket money) in respect of leprosy patients. The Fund also meets the cost of expensive special drugs used in the treatment of T.B. in special cases. A sum of Rs. 5,40,403-2-6 was spent towards treatment charges from 1951 to 1955, and the number of ex-servicemen benefited by this scheme is 881. The Fund also paid a grant of Rs. 1,31,200 for the construction of quarters for the staff employed to look after ex-servicemen patients.

Resettlement facilities

The Co-operative department of the Government of Madras drew up, besides other things, schemes for co-operative motor transport societies, co-operative land colonisation societies and co-operative workshops in which the ex-servicemen were admitted as

members and given employment. The Fund paid loans and grants, as the case may be, for the starting of these co-operative societies. Prior to the separation of Andhra State, there were 13 co-operative motor transport societies, 13 co-operative land colonisation societies and nine workshops. After separation, there are 10 co-operative motor transport societies, six land colonisation societies and seven workshops functioning in Madras State. The first two are under the administrative control of the Registrar of Co-operative Societies and the co-operative workshops are now under the administrative control of the Director of Industries and Commerce.

(i) *Co-operative motor transport societies*.—There are now eight co-operative motor transport societies functioning in the State at Madras, Malabar, Coimbatore, Vellore, Cuddalore, Salem, Tiruchirappalli and Tirunelveli. The societies at Tanjore and Madurai have been liquidated. One thousand one hundred and forty-three ex-servicemen were admitted in all the above societies from their inception, of whom 877 were provided with employment as drivers, cleaners, fitters, conductors, etc., and they were paid salaries and allowances to the tune of Rs. 4.42 lakhs during the co-operative year ended 30th June 1955. Four hundred and forty-nine members had left the societies and sought employment elsewhere. There are 452 members on the rolls of the societies now functioning, of whom 428 are in the employ of these societies. These societies now own 145 lorries, 37 buses and a car (as on 31st December 1955).

These societies were paid a loan of Rs. 18.53 lakhs from the P.W.S.R. Fund for capital expenditure such as purchase of vehicles, erection of M.B. sheds, etc., and the loans are being repaid in 5 to 10 annual instalments.

(ii) *Land colonisation societies for ex-servicemen in Madras State*.—There are now six land colonisation societies in the residuary Madras State as shown below:

- (1) Meyyur-Gudapakkam Society, Chingleput district.
- (2) Manivliandan Society, Salem district.
- (3) Chennakalpalayam Society, Coimbatore district.
- (4) Dr. Rajan Nagar Society, Tiruchirappalli district.

(5) Thirumangalkottai Society, Tanjore district.

(6) Jambuvanodai Society, Tanjore district.

Six hundred and twelve members were admitted so far from their inception. Five hundred and two members were actually settled in the societies; 201 members had deserted the colonies due to drought or other conditions. The Fund paid a total sum of Rupees 2,85,901 to these six colonies as grants towards share capital and for purchase of bulls, seeds, implements, etc., and a sum of Rs. 1,52,350 as loan towards the share capital and purchase of bulls. Five hundred and two members were benefited by the concessions from the P.W.S.R. Fund Committee.

(iii) *Co-operative workshops for ex-servicemen*.—The following ex-servicemen workshops were established in the composite Madras State:—

- (1) The Strathie Co-operative Engineering Workshop, Madras.
- (2) The Kumbakonam Co-operative Metal Works, Limited, Kumbakonam.
- (3) The Malabar District Co-operative Metal Workshop, Limited, Olavakode.
- (4) The Malabar District Co-operative Timber Workshop, Limited, Olavakode.
- (5) The Tirunelveli Co-operative Timber Workshop, Tirunelveli.
- (6) The Katpadi Co-operative Timber Workshop, Limited, Katpadi.
- (7) The Reid Co-operative Timber Workshop, Limited, Tiruvottiyur, Chingleput district.
- (8) The Visakhapatnam Co-operative Metal Workshop, Visakhapatnam.
- (9) The Visakhapatnam Co-operative Timber Workshops, Visakhapatnam.

The two workshops in Visakhapatnam were transferred to the Andhra State with effect from 1st October 1953. There are now only seven workshops in this State. Of these seven workshops, four have been reorganised by equipping them with up to date labour-saving machinery out of the funds provided by Government and the P.W.S.R. Fund. The Fund paid a total sum of Rs. 2.64 lakhs. The Committee gave an interest-free loan of Rs. 28,000 to the Tirunelveli Co-operative Timber Workshop for purchase of a log band saw. The log band saw was inaugurated by the

Governor on 29th July 1956 when he visited Tirunelveli district. One thousand six hundred and twenty-four ex-servicemen were so far admitted as members in these seven workshops from their inception. Eight hundred and thirty-eight ex-servicemen left the workshops and secured employment on a higher scale, etc. These workshops gave them training and equipped them with the required skill for enabling them to compete with civilian workers and secure suitable jobs. These ex-servicemen's workshops have paid wages to the tune of Rs. 13 lakhs from their inception till 30th June 1955.

Wynaad Land Colony

In our land colonisation schemes, the Wynaad scheme in Malabar district is the biggest. What was but a malaria-ridden jungle until 1945 is now the place where a large number of ex-servicemen and non-ex-servicemen were settled. The area was made fit for habitation by eradicating malaria and the colonists themselves had to clear the jungle so as to make fit the land for colonisation. Each colonist was given five acres of dry land and two acres of wet land, or in the alternative, 10 acres of dry land.

The ex-servicemen form 62½ per cent of the total number of colonists. The non-ex-servicemen including the old inhabitants form 37½ per cent. The ultimate strength of ex-servicemen to be settled in this colony is 2,000. The present number settled is 1,917. The scheme is under the administrative control of the Collector of Malabar.

The P.W.S.R. Fund first sanctioned Rs. 38 lakhs for 2,000 ex-servicemen colonists at Rs. 1,900 per head which is to cover the cost of reclamation of land, construction of temporary huts, domestic expenses, seeds and agricultural implements, construction of wells and septic latrines. The P.W.S.R. Fund Committee has also sanctioned for all the ex-servicemen, as a general grant, Rs. 100 to cover domestic expenses during the second year of occupation and Rs. 250 in order to construct trenches and fences around their lands in order to protect themselves against the ravages of wild animals as Wynaad is a forest area. There has also been some desertions from the colony after some period. The Committee has agreed to meet the charges on account of new admissions in place of the

deserted colonists, especially the difference between the amount paid to the previous ex-servicemen who had deserted and the value of improvements left by them in the plots. A sum of Rs. 50,000 was also placed at the disposal of the Collector of Malabar as a discretionary fund for payment to ex-servicemen colonists who need help owing to natural calamities, reverses of fortune, ravages of wild animals, fire or serious illness, etc. The P.W.S.R. Fund has also agreed to share with the Government one-fourth expenditure on a secondary school in Wynaad area because the ex-servicemen's children are also studying in that school.

The Committee has also committed itself to an expenditure of Rs. 2,50,000 for settling additional 200 demobilised soldiers at Rs. 1,250 per head in Wynaad area. The total commitments on behalf of Wynaad Land Colonisation Scheme is more than 49 lakhs of rupees.

Some of the other schemes assisted by the Fund are the following:—

Technical and vocational training.—With a view to enable ex-servicemen to equip themselves for resettling in civil life and for earning their livelihood after their discharge from the Defence Services, the Government of India started technical and vocational training schemes to impart training to these men in various useful technical and vocational trades. The grant given was towards 20 per cent of the total expenditure, i.e., half the cost borne by the State Government. A sum of Rs. 9,54,114 was given from the Fund and the number of persons benefited is 16,343.

Testing of ex-servicemen for jobs in civil employment.—Lorries were hired from the Police Department and the Civil Supplies Department to test ex-servicemen for civil employment as motor transport drivers. A grant of Rs. 10,043-13-0 was paid from the Fund towards the hire and petrol charges. The number of persons benefited is 1,964.

Rehabilitation Centre, Bangalore.—A grant of Rs. 15,000 was given to enable the centre to give—

(i) grants to disabled and wounded trainees who were not in receipt of a pension or whose cases were pending enquiry award;

(ii) financial assistance to trainees not in receipt of pensions or P.E.A. when on 20 days casual leave;

(iii) assistance regarding railway fares to trainees;

(iv) assistance to trainees regarding railway fares to families; and

(v) miscellaneous petty grants. The number of persons benefited is 734.

St. Dunstan's Hostel (Dehra Dun).—A grant of Rs. 79,795 was paid towards the cost of training in certain trades of the Madras blinded ex-servicemen. The number of persons benefited is 38.

King George Royal Indian Military Colleges, Bangalore and Belgaum.—The Fund paid from 1950 to 1954 Rupees 3,512-4-0 towards scholarships to the cadets in the above colleges at the rate of Rs. 65 per annum per cadet. The number of cadets benefited is 18.

Madras State Soldier's, Sailors' and Airmen's Board.—The Fund has given a grant of Rs. 1,00,000 to the Madras State Soldiers', Sailors' and Airmen's Board to enable the Board to grant allowances, etc., to deserving ex-servicemen and/or their families who were in need of them.

Ex-services' centres.—Ex-services centres were constructed at the instance of the Demobilisation Directorate to accommodate and provide recreation and various amenities to ex-servicemen. The grant paid (Rs. 38,117-5-2) was for the upkeep and maintenance of the ex-services centres.

Propaganda and publicity films.—The Fund paid a grant of Rs. 30,080 towards the cost of taking three films for popularising the schemes undertaken for the resettlement of ex-servicemen, viz., (1) Land Colonies, (2) Motor Transport Societies and (3) Workshops.

Rural dispensaries.—The Fund paid Rs. 18,000 for the construction of three dispensaries for indigenous medicine at Ardaveed, Chandole and Mullundrum in pursuance of the Government's decision to provide dispensaries in certain villages which sent exceptionally large number of recruits to the Armed Forces.

Co-operative Milk Supply Union, Pudukottai.—This scheme relates to the opening of Milk Supply Societies and other societies with both ex-servicemen and non-ex-servicemen enrolled as members in Pudukottai

area as a scheme of resettlement of ex-servicemen. A grant of Rs. 2,100 was paid for this scheme and the number of persons benefited is 21.

S.I.Ry. Ex-service Employees' Association, Tiruchirappalli.—The Fund gave a grant of Rs. 1,000 to the S.I.Ry. Ex-servicemen Employees' Association, Tiruchirappalli, to supplement its income to run the reading room and the recreation club.

Stipends, etc., to ex-servicemen undergoing Sanitary Inspectors' Course.—Ex-servicemen desirous of taking up appointment as Sanitary Inspectors have to undergo a course in the Medical Colleges for one year. The Government of India were granting them stipends. When they stopped giving the stipends, assistance from the P.W.S.R. Fund was sought and was sanctioned from 1947. The assistance has been continued up to the end of March 1956 both for ex-servicemen and children and dependents of Defence Service personnel. A sum of Rs. 45,096-6-0 was paid from the Fund for this purpose up to 1955 and the number of persons benefited is 104.

Training as Physical Training Instructors.—The Fund has paid Rupees 1,69,721-4-0 for training of ex-servicemen as Physical Training Instructors. One hundred and fifty-eight ex-servicemen were benefited.

Madras Sappers and Miners Boys Hostel, Bangalore.—This hostel is intended for a limited number of sons of Indian ranks not resident in Bangalore with a view to educate them up to the standard necessary for entry to the King George Royal Indian Military Colleges or Boys Battalion. A sum of Rs. 1,45,000 was paid from the Fund to this hostel for the years 1947, and 1950 to 1956 (March) to supplement the income of the hostel to meet the running expenses. The number benefited is 227.

Regimental Hostel, Wellington (Nilgiris).—This hostel is intended to enable promising young Madras boys (children of ex-servicemen) to obtain a good early education in English at schools in Coimbatore and to select suitable candidates for the King George Royal Indian Military College, Bangalore, with a view to their returning to the Indian Army as potential Indian Officers or obtaining Army vacancies in the Indian Military Academy.

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grant of Rs. 1,34,650 was paid to supplement the funds of this hostel. The number of persons benefited by this scheme is 68.

Queen Mary's Technical School for disabled Ex-servicemen, Kirkee.—The school is meeting recurring grants at Rs. 50 per mensem per disabled Madras ex-serviceman who undergoes training in the school in any of the trades taught in the school. On completion of the training, the trainees are helped by the School in securing employment. A sum of Rs. 67,270-11-0 has been spent on this scheme from 1952 to 1955 and the number benefited is 297.

The Fund has also paid a non-recurring grant of Rs. 25,000 for the construction of a block in the school to accommodate six Madras ex-servicemen with their families. This provides them with not only family accommodation, but also necessary equipment and materials to work under efficient supervision. Marketing of the finished goods is done by the institutions and the trainees stand on their own legs.

Indian Hospitality Committee.—The Indian Hospitality Committee at Madras is a non-official body doing yeoman service to the families of ex-servicemen and of serving soldiers, etc. The soldiers' boards ask the Indian Hospitality Committee to make enquiries of ex-servicemen and their families regarding pensions, allotments, concessions and other help needed. They incur an expenditure of about Rs. 150-200 a month for the purpose. The Fund is paying the recurring grants at Rs. 200 per mensem for meeting the expenditure. A total sum of Rs. 10,650 has been paid from 1950-1955.

Training of ex-servicemen as Gram Sevaks.—The Government proposed to arrange for the training of ex-servicemen in State Agricultural Schools for appointment as Gram Sevaks under the National Extension Service Programme and to reserve 25 per cent of seats for them. The scheme envisages grant of stipends to the trainees at Rs. 30 per mensem for 1½ years, half of which will be met from the Defence Services Estimates and the other half from the P.W.S.R. Fund.

Stipends to children/dependents of ex-servicemen undergoing training in Technical and Vocational trades.—The scheme relates to the training of children and dependents of ex-servicemen in Technical and Vocational trades in the Government of India Training Centres under the Ministry of Labour. A stipend of Rs. 25 has been sanctioned by the Fund to the trainees subject to a maximum of 30 trainees, for the actual period of the training. A sum of Rs. 1,903-7-0 was paid by the Fund under this scheme and the number of persons benefited is 7.

Admission of Travancore-Cochin State ex-servicemen as colonists in Wynaad.—The Madras P.W.S.R. Fund is intended for the benefit of Madras ex-servicemen. However, when the scheme was originally launched, some ex-servicemen of Travancore-Cochin State were admitted as colonists in Wynaad and grants were paid to them from the Madras P.W.S.R. Fund. It was found out later that 145 such colonists were admitted. The Government of India stated that ex-servicemen of one State settling themselves permanently in another State were eligible for the benefits from the P.W.S.R. Fund of the latter State. A sum of Rs. 2,46,063-10-10 was disbursed to the colonists.

Per capita grant of Rs. 25 to children of ex-servicemen of Madras State admitted into the hostel of the Army Service Corps Centre (South), Bangalore.—The Commandant of the Army Service Corps Centre, Bangalore, applied to the Committee for a grant of Rs. 1 lakh to open a hostel. The aim of the hostel was to provide educational facilities to the children of Army Service Corps personnel between the ages of 8 and 11 who were orphans and destitutes. The grant of Rs. 1 lakh was intended to be put in fixed deposit and to meet the expenditure partly from the interest accruing therefrom. However, the Committee sanctioned only a per capita grant of Rs. 25 per mensem subject to a maximum of 20 boys for five years. A sum of Rs. 1,349-14-0 has been paid up to 31st December 1955 and the number benefited is 8.

From the above it will be seen that the Fund has been giving substantial help in the matter of resettlement of ex-servicemen.

Consequent on the partition of the State on and from 1st October 1953, the Fund has had also to be allocated between Madras, Andhra and Mysore States. The balance at the disposal of the Fund has, therefore, become so very limited that it is practically impossible to undertake any new schemes, or even to continue to finance the existing ones. It is for this reason primarily that the Committee had regretfully to decide to discontinue the grant of educational concessions to the children and dependents of Defence Service personnel from the academic year 1956-57 even though the Committee had agreed, in the first instance, to continue the concessions till the end of 1960.

The Committee has decided to stop assistance to several other schemes also; and this it did with deep sorrow and purely on account of the difficult financial position of the Fund. The help which the Committee has been giving to the ex-service Leprosy and T.B. patients undergoing treatment in the various Sanatoria in the State by way of recurring grants, will also have to be withdrawn in 2 or 3 months' time if no further assistance is received from the Centre.

The Committee believes that this gives a clear picture of the Fund, and expresses its own great sorrow at no more being in a position to carry out its original intentions.

Snippets

Each of the special multi-purpose projects to be taken up shortly in the tribal and scheduled areas, under a scheme of the Home Ministry will be allotted a sum of Rs. 27 lakhs. Of this, Rs. 12 lakhs will be provided from the Community Project Funds and the rest by the Home Ministry.

The Indian Veterinary Research Institute and other centres have evolved effective vaccines to immunise cattle from rinderpest. A Five-Year programme for eradication of rinderpest at a cost of Rs. 2.82 crores is to be carried out.

The total capacity of foodgrains godowns belonging to the Union Government is 2.1 lakhs tons.

Education

New Pattern of National Education

Objectives: The Emergence and Enrichment of Individual's Total Personality

SRI K. G. SAIYIDAIN, Secretary, Union Ministry of Education.

During the last 20 years that this educational movement has been working in the country, a good deal has been written and talked about it and many Conferences and Committees have been held. But there is still a good deal of misunderstanding and confusion in the minds of people about its meaning and purpose as well as its methods and techniques. This however, does not surprise me unduly; for, when you are trying to establish something new, almost radically new, you have to deal with fixed habits of thinking, with deep-rooted practices and the great power that resides in inertia! If it was

a matter of building a new house of bricks in place of an old one, it will be easy. You could quickly pull down the old one and put up a new one in its place. But building up a new educational pattern is quite a different proposition.

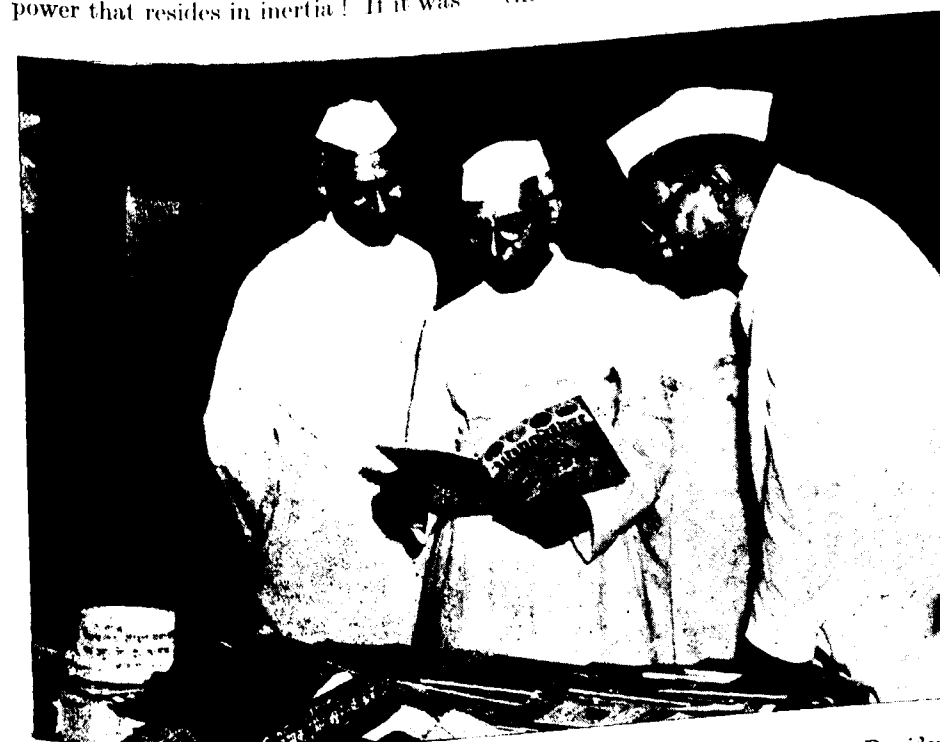
You cannot demolish old ideas and emotions and mental concepts with a pick-axe; you have to build the new into the old as it were, with infinite patience and care. You have to change the intellectual and emotional patterns as well as the professional outlook of the teachers first and to provide a

congenial environment for the new ideas to grow and the new teachers to function effectively. It is they who will eventually transform the educational scene.

No Apology

I say so not primarily as an apology for the comparatively slow pace at which Basic Education has been developing but mainly to underline the essential nature of the educative process. This is often not fully appreciated by the ill-informed critics who are thereby betrayed into wrong judgment or by the impatient enthusiasts who are apt to suffer from a sense of frustration. With the impatience of enthusiasm I have a great deal of sympathy—without its stimulus there is a danger that workers may become lax and self-complacent. But, in formulating policies and assessing results, it is necessary to take a comprehensive and balanced view.

Now, what is this Basic Education? I wonder if it occurs to many parents or even teachers to ask themselves. What is not merely this Basic Education but this whole business of Education about? Why do we send our children to schools? What is it exactly that they are doing there, how does it link up the objectives in view and how do these objectives link up, in their turn, with needs of our life and our socio-economic situation? We had inherited a certain educational system that had developed during the British regime. It has continued to work by its momentum till comparatively recently. The plea for a radical change made, from time to time, by many educationists, remained unimplemented because there was perhaps no sense of desperate urgency or the feeling that we could do very much about it, as power resided in a foreign Government.



The All-India Basic Education Exhibition was inaugurated recently by the President, Dr. Rajendra Prasad, in New Delhi. The Exhibition has been organised by the Union Education Ministry to explain the concept of Basic Education and acquainting the public with the development of Basic Education in the country. Photo shows the President and the Prime Minister examining publications on Basic Education at one of the sections of the Exhibition. Dr. K. L. Shrivastava, Union Deputy Education Minister, is also seen in the picture.

Objectives

Gandhiji, on the other hand, was not interested in playing with ideas as such—which may provide a kind of intellectual satisfaction—but in putting them into practice and letting them impinge on life creatively. Moreover, he did not recognise that power resided in any one *else*—it came from God and resided in the individual and if the individual was sincere and keen, he could break through the walls of circumstance.

I believe he must have asked himself the kind of questions that I mentioned just now—about objectives and purposes and methods and techniques and the relationship of education with life. He came to the conclusion that the education being given in our schools was not vitally related to life. It was good to learn to read and write and reckon, to read books, to acquire knowledge and information but all these things should be done in the context of work, which formed the warp and woof of life.

He was specially concerned with life in rural India, which covered more than 75 per cent of the people, and he knew that they were engaged all the time in activities like farming, spinning, weaving, carpentry house-building and many other cottage crafts and industries. While they were doing this, their children in schools were spending all their time in receiving a bookish education which did not equip them properly for what was going to be the main business of their life.

Productive Activity

So, he argued, productive activity or fruitful work must become the centre of education also and the knowledge that the children acquire should not be forced on them from outside but should grow and be motivated by the work that they are doing from day-to-day. Thus was born the idea of a *basic craft*, which was to provide one important centre of correlation with the various 'studies' taught in school—it was to be a type of craft congenial to the locality and possessing educational possibilities.

It was also recognized—as the idea of basic education developed and deepened—that knowledge could, and should be correlated with the child's physical and social environment also, because they were rich in stimuli and possibilities and could give reality and concreteness to learning. This approach gave a

new and exciting yardstick with which to measure the relevance as well as the significance of the curriculum and the items included in the syllabuses. If these did not touch the child's life and interests and his growing craft activity, the presumption was that they were by the grace of age and inertia. There was at least a good case for courageously examining their bonafides and excluding things which did not add to the child's power of action, understanding and appreciation.

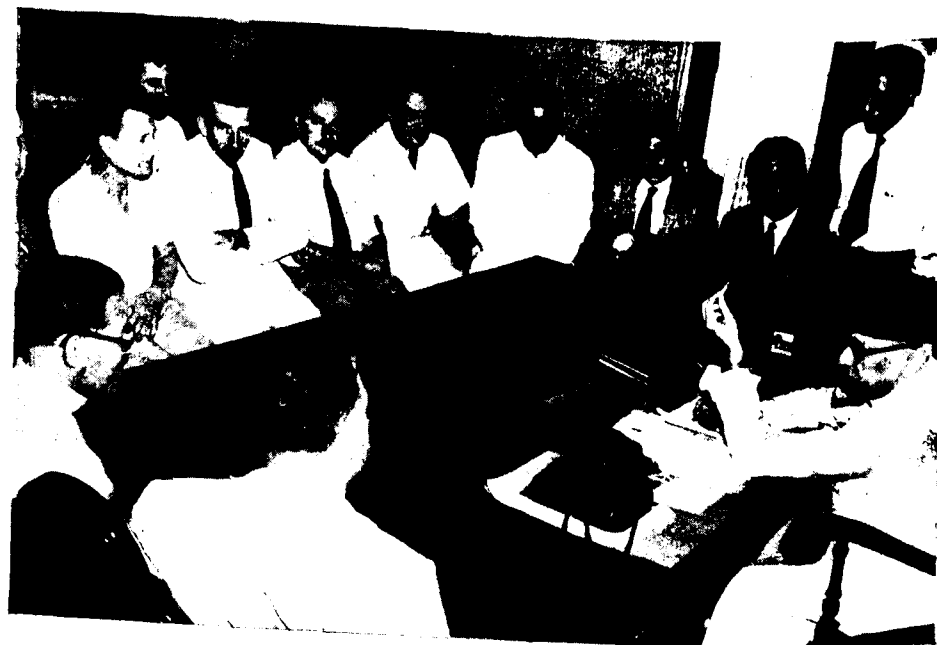
Social activity

This was, however, not the only implication of the work idea in education. As the Zakir Hussain Committee pointed out good, honest, interested work, done with efficiency, was basic to the health of the individual's total personality. Socially motivated activity, intelligently carried out, made ideas clearer and mind keener and guarded against that intellectual confusion and self-deception which verbalism tends to encourage. Moreover, it was necessary for *social health*—it tended to break down the disastrous tendency to look upon manual work as undignified and encouraged the unlovely tendencies of snobbery and social stratification.

This is the *vision* of Basic Education the star to which its wagon has been hitched. For various reasons—some inherent in any human situation, some implicit in our peculiar objective situation with its limitation of financial and personnel resources—it has not been possible to introduce basic education in a large number of schools yet. There are at present about 36 thousand basic schools in the country as against 2.5 lakhs ordinary primary schools, though it is a matter for satisfaction that a large number of *training schools* have already been converted into Basic Training Schools.

Moreover, many of these schools have not been able to rise to the stature of really good basic schools—though they are steadily and patiently groping their way towards the goal. Considering the teachers we have in a large majority of schools—with inadequate qualifications and training and salaries which are nothing to write home about—it is no wonder that the new methods and techniques, have not yet been fully grasped. And this applies not only to the teachers but also to inspecting officers and other administrative authorities.

(Continued on page 28)



Maulana Abul Kalam Azad, Minister for Education, Government of India, in conversation with members of the UNESCO Mission when they called on the Education Minister at Parliament House, New Delhi. Seated on his right is the leader of the Mission, Professor N. Cacciopuoti, Deputy Director of Science Department, UNESCO Headquarters, Paris. The UNESCO Mission is on a six-week visit to this country. It will discuss with the Government of India the question of equipment to be supplied under UNESCO's Expanded Programme of Technical Assistance for the laboratories of the Western Higher Technological Institute, Bombay, to be established during the Second Five-Year Plan.

Buddhist Art in India

The monks and the nuns, like the Buddha, their Master, adopted an itinerant life and moved from place to place; from caves to rock-cut dwellings.

As the Buddhist *Sangha* grew, the merchants and royal votaries, foremost among whom was Emperor Asoka, endowed the Buddhist *Sangha* and raised *caityas*, *stupas* and monasteries or *viharas*. With corporate life came the monastery, and into the monastery were introduced temples and chapels.

Thus in the cool and peaceful hills, where the Buddhist monks and nuns resorted, arose marvellous Buddhist cave-temples, as Karle, Kanheri and Bhaja in Bombay State and Ajanta in the Deccan. Gigantic *stupas* and *caityas* were built at Sauchi and Bharhut in Central India, Amaravati and Nagarjunakonda in South India. Painting and sculpture which evoke the artist's admiration were enlisted to display the glory of the Buddha and the life of the Master, his past births (the *Jatakas*) and other edifying legends became their subject-matter.

The Stupa in Buddhist Art

The highest objects of worship for the Buddhist are the "Triratna" or the three jewels: (1) the Buddha, (2) the Dharma, and (3) the Sangha. There are also other objects of worship which, when compared with the "Triratna" can only be described as material or formal, but which appealed more forcibly to the laymen than all the precepts, parables and sayings of the Buddha put together. And they are the relics of holy persons like the Buddha, the Pratyeka-Buddhas the

Arhats and the Chakravartins, over which great monuments were erected by a 'grateful posterity.'

Originally there were eight *stupas*: in Rajagriha, Vaisali, Kapilavastu, Allakappa, Ramagrama, Vethadipa, Pava and Kusinara, besides those erected by the Brahmana Drona and the Mauryas of Pipplivana. In addition to these relics, one of which is worshipped in heaven, another in Gandhara, and one each in Kalinga and the land of the Nagas respectively. The *Daladavamsa* (composed about 310 A.D.) speaks of the history of eye-tooth (damstra) relic which was taken to Dantapur or Kalinganagari, the capital of Kalinga.

We also hear of places where the Buddha is said to have left his footprints for the faithful to worship. And in all these places sanctuaries of different kinds have risen and the relics mentioned are worshipped.

In the three centuries before and after the birth of Christ, India witnessed a phenomenal growth of Buddhist art and culture. In the north-west, owing to the impact of Greece and Rome, a hybrid art developed and a complete Buddhist imagery called *Gandhara* was elaborated. Gradually the orthodox Buddhist doctrine underwent change. Popular beliefs, magic and sorcery, collectively known as *tantra*, began to spread among the people and through the *tantra* Buddhism and Hinduism were brought closer.

Under the direct influence of Buddhism a synthesis was affected between the higher and lower forms of beliefs to suit Indian genius. This produced a very rich sculpture, which is preserved on the railings and gateways of the *stupas* of Sanchi (Bhopal) and Bharhut (Central India), Amaravati and Nagarjunakonda (Guntur District, South India). Some bronze images of the Buddha, dating not earlier than the 2nd century A.D., have also been found in Amaravati and its neighbourhood. From the

2nd century A.D. onwards the image of Buddha became sufficiently popular with the artists to carve or cast and we have to-day a good sculpture sequence of the Buddha image.

A vital and prolific school of Indian sculpture sprang up at Mathura in the 1st century A.D., distinguished alike by remarkable statuary illustrative of sectarian belief and by the common heritage of beautiful figure sculpture, of which the best examples are women, carved on the railing pillars, in the company of birds, flora, fauna, and flowing streams.

The school of Mathura found its fulfilment in the Gupta Age (4th-5th century A.D.) which ushered in the Golden Age of Indian Art. The sensuous freedom and plasticity of the Mathura figures were now replaced by restraint, elegance of form and spiritual expression. The great Buddha figures of Mathura, Saranath, Ajanta, and Bihar are immortal specimens which symbolise the ideals of a whole age. The faces are robed in spiritual ecstasy and the smiling countenance with downcast eyes adequately conveys the divine, compassionate love (*karuna*) of the Buddha to all beings.

Bronzes of the Gupta period were of equal rank with the best of stone-sculpture and paintings (such as those in Ajanta and Bagh) as for example, the life size Buddha from Sultanganj in Bihar (5th century A.D.), which is now in the Birmingham Art Gallery, and the beautiful Brahma image from Mirpurkhas *stupa* in Sind. From about the 8th century A.D. onwards metal images became specially popular.

Pala School

The development of the Pala school, the eastern school of Taranatha, is seen at best advantage at Nalanda, the importance of which as a centre of Buddhist learning continued undiminished, in spite of the political decadence of Magadha, until the monasteries were destroyed in about 1197 A.D.

(This article is based on Shri T. N. Ramachandran's exposition of Buddhist Art in India, forming a Chapter of the forthcoming book "2,500 Years of Buddhism" to be published by the Publications Division, Ministry of Information and Broadcasting).

Nalanda has been the richest source of the well-known smooth, black slate images and has also yielded an extensive series of Buddhist bronzes. The importance of Nalanda, as a centre of Buddhist culture and as a source of iconographic and stylistic influences throughout the East, is well illustrated by the close relations that existed between Nalanda and Sumatra-Java in the 9th century, as shown by the copper plate of Devapala-deva in which reference was made to the important monastery at Nalanda built by Balaputra of Suvarnadvipa in circa 860. Nepal and Burma, too, were closely connected with Nalanda. Eastern India, comprising Bihar and Bengal, as one province from the point of view of the development of art, under Pala and Sena rule, and Mayurnahaj, followed the classical traditions evolved in the Gupta period.

Buddhist bronzes, though rare in South India, are occasionally found, mostly in Tanjore district, and they date from the 10th to 15th century A.D. Since 1856, about 350 Buddhist bronzes of the Mahayana, some of which are inscribed, were recovered from the sites of the *viharas* raised in Nagapattinam by the Sailendras of Sumatra during the time of the Chola Kings, Rajaraja I and Rajendra Chola I. Some of these bronzes belong to the early Chola period. (871-1070 A.D.) and a large number of the rest to the later Chola period (1070-1250 A.D.).

Influence on South East Asia

The Amaravati, Nalanda and Nagapattinam Buddhist sculptures and bronzes bring us to a most interesting study, namely, to that of the sculpture of South-East Asia, and of the extent to which Burma, Thailand, Malaya, Sumatra, Java and Indo-China derived their arts from India.

The influence of the Amravati school of Art was felt in Ceylon, in lower and central Siam (Thailand) and possibly in Sumatra. Burma and Siam are still Buddhist in faith, though they have witnessed repeated invasions through the centuries, involving them in much bloodshed and anarchy. The Indian colonies were bound to the motherland by the silken ties of art, culture and religion. In the 5th century A.D. the Golden Age in Northern India under the glorious Pallavas left its marks on the colonies and their culture.

(Continued on page 25)

Electrification—Progress

Rural Electrification

The number of villages electrified during the month of February in the various systems :—

Pykara System	..	..	..	11
Mettur System	..	..	..	19
Papanasam System	..	..	..	22
Madras System	..	..	..	15
Total	..	..	..	67

The names of villages electrified with the details of taluk and district are given below :—

Name of village.	Taluk.	District.
<i>Pykara Electricity System.</i>		
1. Ayigoundenpalayam	..	..
2. Velur	..	..
3. Kupandampalayam	..	..
4. Vettuvapalayam	..	..
5. Karattur	..	..
6. Ramanathapuram	..	..
7. Nallagoundenpalayam	..	..
8. Nallegoundenpalayam	..	..
9. Kalathupudur	..	..
10. Kalpetta	..	..
11. Karupellu	..	..
1. Ayigoundenpalayam	..	..
2. Velur	..	..
3. Kupandampalayam	..	..
4. Vettuvapalayam	..	..
5. Karattur	..	..
6. Ramanathapuram	..	..
7. Nallagoundenpalayam	..	..
8. Nallegoundenpalayam	..	..
9. Kalathupudur	..	..
10. Kalpetta	..	..
11. Karupellu	..	..

<i>Mettur Electricity System.</i>		
1. Kilanathur	..	..
2. Gollamangalam	..	..
3. Valayambathu	..	..
4. Quilam	..	..
5. Pudupattu	..	..
6. Valapadi	..	..
7. Kallithangal	..	..
8. Melur	..	..
9. Annaithangal	..	..
10. Sathambakkam	..	..
11. Alapakkam	..	..
12. Kilvenkatapuram	..	..
13. Rajapalayam	..	..
14. Mathigiri	..	..
15. Jeemangulam	..	..
16. Kadambankurichi	..	..
17. Varapaliyam (h/o) kurichi.	..	..
18. Moolakatanur	..	..
19. Kilvaithinankuppam	..	..

<i>Papanasam Electricity System.</i>		
1. Kovilur	..	..
2. Chettiarpaty	..	..
3. Regunathapuram	..	..
4. Achandaviltan	..	..
5. Alamarathupatti	..	..
6. Karungulam	..	..

(Continued from page 24)

The last trend of Indian art to influence colonial art is found in the 11th century products of the Pala Kingdom of Bihar and Bengal. Under the spell of Pala art and faith, the early Burmese Kings of Pagan became intimately connected with Buddha Gaya and Nalanda which led to the introduction of a new image of the Buddha belonging to the Sthaviravada School. This form of the Buddha image gradually found its way from Burma into the North Siam where it became the forerunner of the Siamese National School. How the Siamese National School was later influenced by a new form of the Buddha image from Ceylon and from South India is spread over eight different periods of Thailand's interesting history.

The mediaeval period in Eastern and Western India was a period of intense activity in manuscript writing. As the authors of manuscripts wanted to embellish their books with illustrations, the use of miniature paintings came into vogue. The miniature paintings of Eastern India of the Pala period mostly deal with Buddhist gods and goddesses and the art, though simple in composition, is characterised by sinuous lines and subdued tone. Some of the best examples of miniature paintings are to be found in the *Prajnaparimita* and other Buddhist texts of the 12th-14th century A.D.

Full Fee Concessions

The Government have issued orders, sanctioning with effect from the school year 1956-57, full fee concession, instead of the present half-fee concession, in Forms IV to VI of secondary schools, for children of elementary school teachers, employed in Government, local body and aided institutions, police constables and head constables and last grade Government servants.

Cardamom, a Commercial Crop

The Government have notified cardamom as a commercial crop for the purposes specified in section 10 of the Malabar Tenancy Act, 1929, with effect from the agricultural year commencing in 1956.

Name of village. Taluk. District.

Papanasam Electricity System—cont.

7. Poigai	..	..	..	Tenkasi	..	..	Tirunelveli.
8. Tirupurasundarapuram	..	..	..	Do.	..	..	Do.
9. Sivanandanoor	..	..	..	Ambasamudram.	..	..	Do.
10. Chellapillayarkulam	..	..	..	Do.	..	..	Do.
11. Ananjaperumalnadanoor	..	..	..	Do.	..	..	Do.
12. Pandarakulam	..	..	..	Do.	..	..	Do.
13. Thetharappapuram	..	..	..	Do.	..	..	Do.
14. Sankaralingapuram	..	..	..	Do.	..	..	Do.
15. Manalur	..	..	..	Sankarankoil	..	..	Do.
16. Kulasekaranpatti	..	..	..	Tenkasi	..	..	Do.
17. Udangudi	..	..	..	Tiruchendur	..	..	Do.
18. Chettipatti	..	..	..	Do.	..	..	Do.
19. Murgathuranpatti (H/o) Malaya-gavandanpatty.	..	..	..	Nilakottai	..	..	Madurai.
20. Chennampatti	..	..	..	Tirumangalam	..	..	Do.
21. Doddapanaickanoor	..	..	..	Do.	..	..	Do.
22. Krishnapuram	..	..	..	Do.	..	..	Do.

Madras Electricity System.

1. Karalapakkam	..	..	..	Saidapet	..	..	Chingleput.
2. Chinuambedu	..	..	..	Ponneri	..	..	Do.
3. Palavoyal	..	..	..	Saidapet	..	..	Do.
4. Nayar	..	..	..	Ponneri	..	..	Do.
5. Pudukuppam	..	..	..	Do.	..	..	Do.
6. Pallikuppam	..	..	..	Saidapet	..	..	Do.
7. Thirthagimampet	..	..	..	Do.	..	..	Do.
8. Tiruvanam	..	..	..	Sriperumbudur	..	..	Do.
9. Kavalechir	..	..	..	Do.	..	..	Do.
10. Melmanambadu	..	..	..	Do.	..	..	Do.
11. Aryaperumbakkam	..	..	..	Kancheepuram	..	..	Do.
12. Mamandur-Vadapatti	..	..	..	Madurantakam	..	..	Do.
13. Kothimangalam	..	..	..	Chingleput	..	..	Do.
14. Nogunbam	..	..	..	Madurantagam	..	..	Do.
15. Vishnu-Kanchi (h/o) Sevilmedu.	..	..	..	Kancheepuram	..	..	Do.

Work on a large number of rural extension scheme spread over the entire state was progressing. The following are the particulars of length of new lines constructed and energised during the month in the various systems.

		Length of lines in miles.	
		H.T.	L.T.
Pykara System	..	10-18	23-61
Mettur System	..	24-36	102-52
Papanasam System	..	39-10	65-42
Madras System	..	16-25	24-39
Total	..	89-89	215-94

In the Madras city a total number of 308 D.C. services with an approximate connected load of 311.31 K.W. were changed over to A.C. supply on a voluntary basis.

During the month 34 extensions were sanctioned by the Chief Engineer for Electricity and Chief Operation Engineers at an estimated cost of Rs. 19,72,700

The Buddha's Sermon on Love and Kindness

He who is skilled in doing good, and who wishes to attain the State of Calm, should act thus :—

1. He should be courageous, upright in word and deed and mind, be obedient, gentle and humble.

2. Contented, simple and undemanding, with few duties, spare in his habits, with senses controlled, considered in his actions and modest, not becoming too attached to the families of house holders.

3. He should not commit even the slightest wrong on account of which otherwise men might censure him.

May all being be happy and secure ;
May all things possessed of life find deliverance from suffering.

4. Whatever living beings there be feeble or strong, thin or fat, medium, short, small or large, seen or unseen, those dwelling far or near those who are born and those who are to be born—may all beings, without exception, be happy-minded.

5. Let none deceive another nor despise any person whatever in any place. In anger or ill-will let him not wish any harm to another.

6. Just as a mother would protect her only child at the risk of her own life, even so let him cultivate a boundless love towards all beings.

7. Let his thoughts of boundless love pervade the whole world—above, below and across without any obstruction, without any hatred, without any enmity.

8. Whether he stands, walks, sits or lies down, as long as he is awake he should develop this mindfulness. This, they say, is the highest conduct here.

9. Having no false idea of the existence of self, virtuous, and endowed with insight, He discards attachment to sense desires. Of a truth, He does not come again for conception in the womb (He is not born again in this world.)

(The Metta Sutta).



Buddha in Indian Art

Buddhism was spreading rapidly in India just at the time when communication was established between India and the Hellenic Middle East (in the wake of Alexander). Gandhara, ruled by the Kushans from their capital Purushapura—modern Peshawar—was the region where the sculptural forms evolved in Greece became the basis of the material embodiment of Buddhist inspiration.

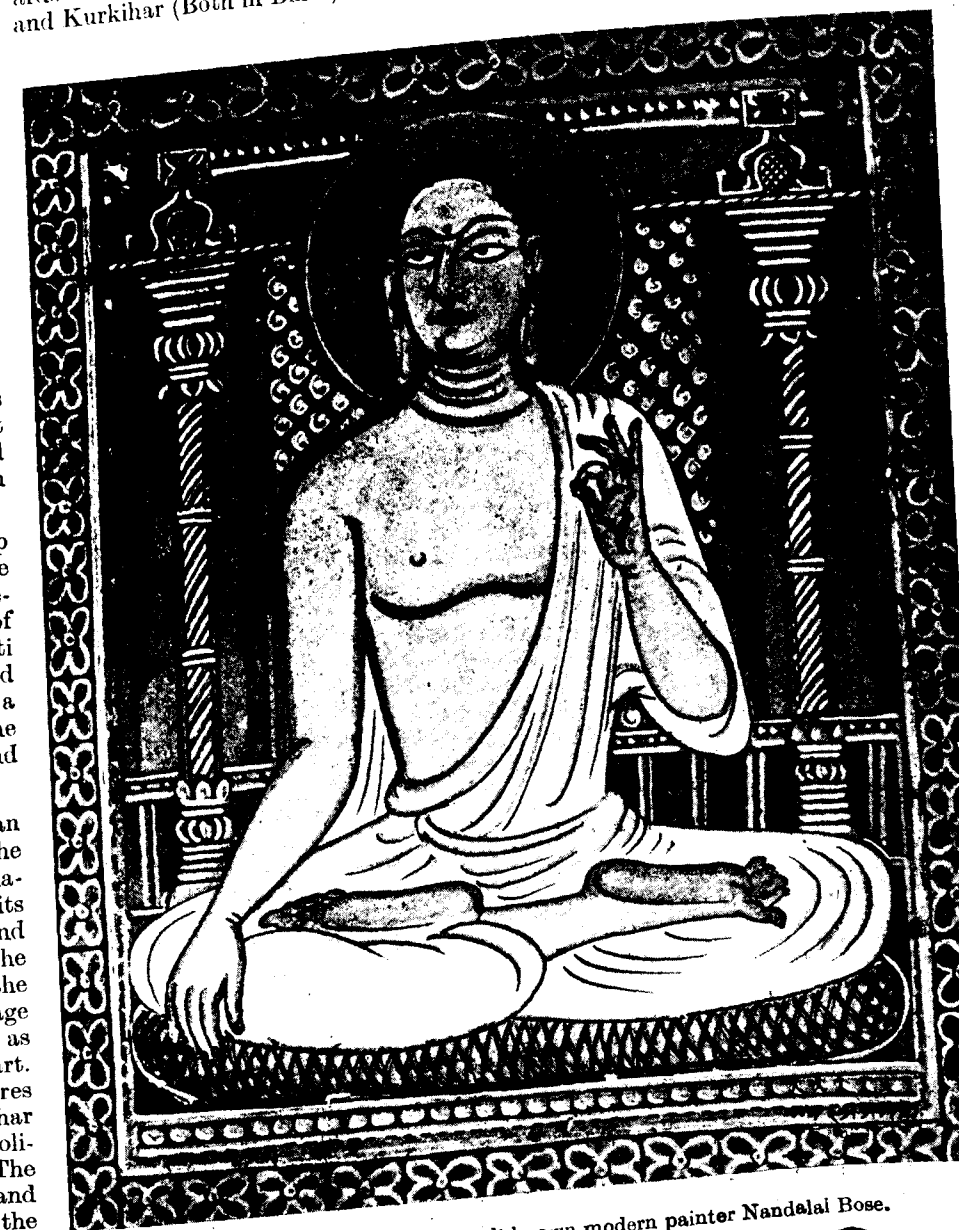
As the Buddhist church grew, the merchants and royal votaries, foremost among whom was Emperor Asoka, endowed the Buddhist *Sangha* and raised *caryas*, *stupas* and monasteries or *viharas*. With corporate life came the monastery, and into the monastery were introduced temples and chapels. Thus in the cool and peaceful hills, where the Buddhist monks and nuns resorted, arose marvellous Buddhist cave temples, as Karle, Kanheri and Bhaja in Bombay State and Ajanta in the Deccan.

The tempo of art activity, stepped up in the 2nd century B.C. Its evidence we see today in the rich sculpture preserved on the railings and gateways of *stupas* of Sanchi, Bharhut, Amaravati and Nagarjunakonda. From the 2nd century A.D. onwards we have today a good sculptural sequence of the Buddha image, carved in stone and cast in metal.

A vital and prolific school of Indian sculpture sprang up at Mathura in the 1st century A.D. This school, formative in nature, so to say, found its fulfilment in the Gupta Age (4th and 5th century A.D.) which ushered in the golden age of Indian art. To the Guptas we owe the perfect visual image of the Buddha type of Being, held as the greatest creation of Indian art. Its examples, the great Buddha figures of Mathura, Sarnath, Ajanta and Bihar represent immortal specimens symbolising the ideals of a whole age. The faces are robed in spiritual ecstasy and the smiling countenance conveys the divine compassionate love (*Karuna*) of Buddha towards all beings.

Bronze images too in the Gupta Period attained a rank equal in merit to the best pieces of sculpture and paintings of the age. In elegance of form and spiritual expression the Pala—or the Eastern School—shows high standards of bronze Buddhas from Nalanda and Kurkihar (Both in Bihar).

Since the 12th century till the early part of the present century Buddhism itself was in eclipse. But the power and universality of Buddha's life and teachings could not but inspire, once again, a number of modern Indian painters and sculptors who have taken up the Buddha theme.



The Buddha, a painting by the modern painter Nandalal Bose.

Buddhist Holy Places in India



The Vice-President, Dr. S. Radhakrishnan, visited Lumbini, the birthplace of Lord Buddha in Nepal, recently. The Vice-President was on a visit to that country to attend the Coronation of His Majesty the King of Nepal at Kathmandu. Photo shows the Vice-President inspecting the Asoka Pillar at Lumbini. This place of pilgrimage is visited by a large number of Buddhists throughout the year.

From the middle of May onwards and through summer and early winter Buddhist pilgrims from all over the world will converge upon Buddhist shrines and monuments in India—the land of the birth of Buddha.

Of these holy places, the great Buddha himself told his principle disciple Ananda—so the legend goes—four were important which he recommended his disciples to visit.

Among these he named Lumbini on the Nepal border where he was born in a lovely *sal* grove. Buddha Gaya in Bihar was another. Here he attained enlightenment under the sacred Bodhi tree. The third was Sarnath near Banaras where he preached his first Sermon to five disciples and the fourth, Kusigram in Deoria district, the place of parinirvana where the enlightened one shed his mortal coils.

In addition to those, four other ancient Buddhist centres, Rajgir, Sanchi (Bhopal), Nalanda and Nagarjunakonda will figure prominently in the 2,500th Buddha Jayanti celebrations.

At Rajgir (Bihar), famous for its hot springs, Buddha spent a number of years after his enlightenment. Nalanda, the ancient University town and seat of Buddhist learning, is a few miles from Rajgir. Sanchi in Bhopal and Nagarjunakonda (Guntur district) in Andhra are famous for their magnificent *stupas* with richly carved railings and gateways and their numerous ancient monuments.

(Continued from page 22)

There is also a certain measure of scepticism in some quarters about the merits of basic education, which is discouraging though I am happy to say that, on the whole it is now on the decrease. And, of course, there is the ever present difficulty of finding the resources necessary for providing the essential materials, equipment and books needed for a good basic school. But, with all these handicaps, I have



Rajgir—Here Buddha spent a number of years after his Enlightenment.

seen the miracle happen—sometime in a remote village school in Kashmir, sometime in a compact basic area in Bihar and above all at Sevagram where Gandhiji's spirit still presides, encouraging the selfless idealism and pioneering spirit of its workers and tempering the impatience of their enthusiasm with his own sense of realism.

I can, therefore, say with a measure of confidence, that education, this realistic and socially inspired approach to education, has justified itself and that it holds out the promise of great achievements. Of course, there is one essential condition which applies as emphatically here as elsewhere—the quality of

the teacher's mind and personality. The miracle that I have spoken about just now has always been not merely the miracle of technique but of personality.

In the course of the challenging ideas that Gandhiji threw out, he had stated that the children in basic schools should work at a basic craft and, during such work, they should produce articles which might be saleable in the market and from which part of the cost of schooling may be met.

This suggestion aroused a great deal of indignation, but not always well-informed criticism both because it was

considered unpractical and because it was considered to be un-educative and likely to turn the schools into "child factories." Since then the debate has gone on back and forth and, while the latter argument has lost ground, the former still holds the field.

To my way of thinking, the second reason is more significant than the first because, in the ultimate analysis, a country must find the resources which are necessary to establish a national system of education. It cannot shirk this responsibility without staking its future on a very dubious ticket.

A.I.R.—Delhi Station.

Buddha's Life Episode in Indian Art

Siddhartha's life, its true princely qualities, its perfect purity of a sage and the passionate love of mankind—indeed all life—and the richness of episodes associated with his life proved a perennial source of inspiration to all.

Within the span of one human life, it covered the whole processional movement of man's story: the babe at the mother's breast, the child at play, the youth at his pleasures, then the sickening of the senses and the turning away from the sheltered domestic hearth, the torments of the soul aspiring for release and the final enlightenment and the return to the fold of men to guide and to lead before Mahaparinirvana.

Thus it is that the chisel and the brush throughout the length and breadth of India for centuries never tired of retelling these episodes in holy places, on the railings of stupas, inside monastery caves and wherever pilgrims and devotees could see them and be inspired.

Wages in Tanneries

The Government have constituted an Advisory Committee to review and refix the minimum rates of wages for employment in tanneries and leather manufactories.

The Commissioner of Labour, Madras, will be the Chairman and independent member of this Committee. The Personal Assistant to the Commissioner of Labour will be the Secretary to the Committee.

The following will be the other members of the Committee representing the employers: (1) Sri Miyan Hajee Mohamad Zackria Sahib, President, Vaniyambadi Tanners' Association, Vaniyambadi; (2) Sri R. Varadarajulu Naidu, Coimbatore; (3) Sri A. J. Sharman, Pallavaram; (4) Sri Haji H. M. P. Mohamed Yousuf Sahib, Dindigul.

The members of the Committee who will represent the employees will be: (1) Sri A. Balasubramaniam, Dindigul; (2) Sri K. C. Ramaswamy, Podanur; (3) Sri M. Adimulam, Vaniyambadi; (4) Sri S. Krishnamurthy, Madras.

The independent members will be the Director of Statistics and the Joint Director of Industries and Commerce, Madras.



MĀYĀDEVĪ
(BIRTH OF THE BUDDHA)
Circa 11th-12th Century A. D.
FROM NALANDA, BIHAR.

A.I.R., Tiruchi: Rural Programmes for June 1956

Friday, 1st June 1956—

Thinnai Kadai (3) Serial Sketch.
Irulil Oli (Serial feature on Gandhiji's life).
Namadu Dittam (5) Kalvi: Discussion.
Market rates and water level readings.
Topical discussion; weather report.

Saturday, 2nd June 1956—

Ennarum Tamizh—Song.
Adult Literacy Class: Tirukkural—Payanilasollamai (Kural Nos. 193 and 194).
Ennenna Vandalum—Song.
'Work of the Harijan Welfare Department in 1955-56'—Talk in Tamil arranged by the Director of Harijan Welfare, Government of Madras.
Weekly Review of Market rates.
Market rates and water level readings.
Topical discussion; weather report.

Sunday, 3rd June 1956—

Sun-hemp: Discussion.
Grama Kalakshepa Mandapathil: 'Karaikkal Ammayar'—Kathaprasankam by Rukmani Ammal.
Market rates and water level readings.
Topical discussion; weather report.

Monday, 4th June 1956—

Fowl-pox: Discussion.
Folk art: Karaha Attam by K. Subramania Nattar and Party.
Market rates and water level readings.
Topical discussion; weather report.

Tuesday, 5th June 1956—

Udai Alankaram (3) Kambali Aadai: Musical feature.
Sudantira Suriyan—Song.
Farm Forum: Discussion: Participant: P. Rangaswami.
Folk songs.
Market rates and water level readings.
Topical discussion; weather report.

Wednesday, 6th June 1956—

Small-pox: Discussion.
Poocharam: Songs on Lord Buddha.
Kashmir: Forest Wealth: Discussion.
Market rates and water level readings.
Topical discussion; weather report.

Thursday, 7th June 1956—

Gnana Chuvadi: Isai Nigazchi.
Farm Forum: Discussion—Participant: D. Durairaj.
Chakkai Attam by C. Balamuthu and Party.
Market rates and water level readings.
Topical discussion; weather report.

Friday, 8th June 1956—

Thayathu Thangaswami: Sketch.
The Village Welfare Association: 'The role and use of co-operatives in rural economy'—Discussion.
Participant: A. N. Arunachala Tondaiman.
Inda Pattai Kettanaya.
Market rates and water level readings.
Topical discussion; weather report.

Saturday, 9th June 1956—

Adippodu Maraiyai: Song.
The Adult Literacy Class: Tirukkural—Payanilasollamai (Kural Nos. 195 and 196).
Sentamizh Nadu: Song.
Cottage Industries: Karuppatti—Interview with Kandaswamy Nadar.
Weekly review of market rates.
Market rates and water level readings.
Topical discussion; weather report.

Sunday, 10th June 1956—

Weed-killers: Discussion.
Varna Mettu: Folk tunes.
Namakku Vendam: Telling Tales: Sketch.
Market rates and water level readings.
Topical discussion; weather report.

Monday, 11th June 1956—

Sheep-farming: Discussion.
Folk art: Kaman Dahanam by S. P. Thangaraj and Party.
Market rates and water level readings.
Topical discussion; weather report.

Tuesday, 12th June 1956—

Sarva Vallabar: Sketch.
Pachaippasumpullu: Song.
Farm Forum: Discussion—Participant: A. Ramasubbiah.
Folk songs.
Market rates and water level readings.
Topical discussion; weather report.

Wednesday, 13th June 1956—

Listeners' Letters.
Poocharam: Songs on Lord Buddha.
Valarum Payir (5) Discussion on First Plan achievements: Participant: K. N. Rangaswami Naicker.
Market rates and water level readings.
Topical discussion; weather report.

Thursday, 14th June 1956—

Pattai Kelungal.
Farm Forum: Discussion: Participant—S. Radhakrishna Naidu.
Jamabandi: Play.
Market rates and water level readings.
Topical discussion; weather report.

Friday, 15th June 1956—

Kalavai: Play.
Irulil Oli: Serial Feature on Gandhiji's life.
Namadu Dittam (6): Suhadaram—Discussion.
Market rates and water level readings.
Topical discussion; weather report.

Saturday, 16th June 1956—

Pon Vilaiyum Nam Nadu: Song.
Adult Literacy Class: Tirukkural—Payanilasollamai (Kural Nos. 197 and 198).
Vazhvai Kalaiyakka: Song.

'Rural Housing': Talk in Tamil by M. Thangavelu, Co-operative Sub-Registrar, Tiruchirappalli North (arranged by the Registrar of Co-operative Societies, Madras).
Weekly Review of market rates.
Market rates and water level readings.
Topical discussion; weather report.

Sunday, 17th June 1956—

Gramam Povome: Programme of interviews, folk arts, etc., recorded at a village in Musiri.
Market rates and water level readings.
Topical discussion; weather report.

Monday, 18th June 1956—

Poultry-wealth: Discussion.
Gramma Nataka Sabhaiyil: 'Krishna Deva Rayar' Play by 'Sukhi'.
Market rates and water level readings.
Topical discussion; weather report.

Tuesday, 19th June 1956—

Avarukku Ivar (3) Vyapara Dam-badigal: Serial Sketch.
Teendamai Pei Ariveero: Song.
Farm Forum: Discussion.
Folk songs.
Market rates and water level readings.
Topical discussion; weather report.

Wednesday, 20th June 1956—

Maternity welfare (3) After confinement: Discussion.
Poocharam: Songs on Lord Buddha.
Metric System and decimal coinage: Discussion.
Market rates and water level readings.
Topical discussion; weather report.

Thursday, 21st June 1956—

Gnana chuvadi: Isai Nigazchi.
Farm Forum: Discussion in Tamil: Participant: E. Varadaraj.
Oyilattam by T. Nagan and Party.
Market rates and water level readings.
Topical discussion; weather report.

Friday, 22nd June 1956—

Folk song Lesson.
The Village Women's Forum: Discussion.
Kummi Padalgal.
Gramma Padasalaiyil Naladiar (3).

Market rates and water level readings.
Topical discussion; weather report.

Saturday, 23rd June 1956—

Tennamaracholaiyile: Song.
Adult Literacy Class: Tirukkural—Payanilasollamai (Kural Nos. 199 and 200).
Tennaiyin Keetru: Song.
Cottage Industry: Match Stick Manufacturer: Interview.
Weekly review of market rates.
Market rates and water level readings.
Topical discussion; weather report.

Sunday, 24th June 1956—

Gramma Panchayat: Kinatradi Vazhakku: Feature by N. Vasudev.
Varna Mettu: Folk tunes.
Market rates and water level readings.
Topical discussion; weather report.

Monday, 25th June 1956—

Authrax: Discussion.
Folk art: Lavani—Participants: P. Velmanidas and T. R. Govindarajan.
Market rates and water level readings.
Topical discussion; weather report.

Tuesday, 26th June 1956—

Kannalappotti: Play.
Kavipadiperumai Seyya: Song.
Farm Forum: Discussion.
Folk songs.
Market rates and water level readings.
Topical discussion; weather report.

Wednesday, 27th June 1956—

Listeners' Letters.
Poocharam: Songs on Lord Buddha.
Valarum Payir (6) Discussion on First Plan achievements: Participant: D. I. Ratnaswami Thevar.
Market rates and water level readings.
Topical discussion; weather report.

Thursday, 28th June 1956—

Tudippadalgal.
Farm Forum: Discussion—Participant: R. Venkitapathi.
Kalyana Sappadu: Play.
Market rates and water level readings.
Topical discussion; weather report.

Friday, 29th June 1956—

Kalyanam Yarukku: Play.
Irulil Oli: Serial feature on Gandhiji's life.
Namadu Dittam: (7) Social welfare: Discussion.
Market rates and water level readings.
Topical discussion; weather report.

Saturday, 30th June 1956—

Desanalam peruka: Song.
The Adult Literacy Class: Tirukkural—Tivinaiyacham: (Kural Nos. 201 and 202).
Onre Kulam: Feature.
Weekly review of market rates.
Market rates and water level readings.
Topical discussion; weather report.

On the Wide Road

Paradise alike for motorists, cartmen and hikers, such wide, straight and asphalted roads are not very common in India. And yet, for a vast country like ours, with not too well-developed transport conditions, the importance of good roads can hardly be over-emphasised.

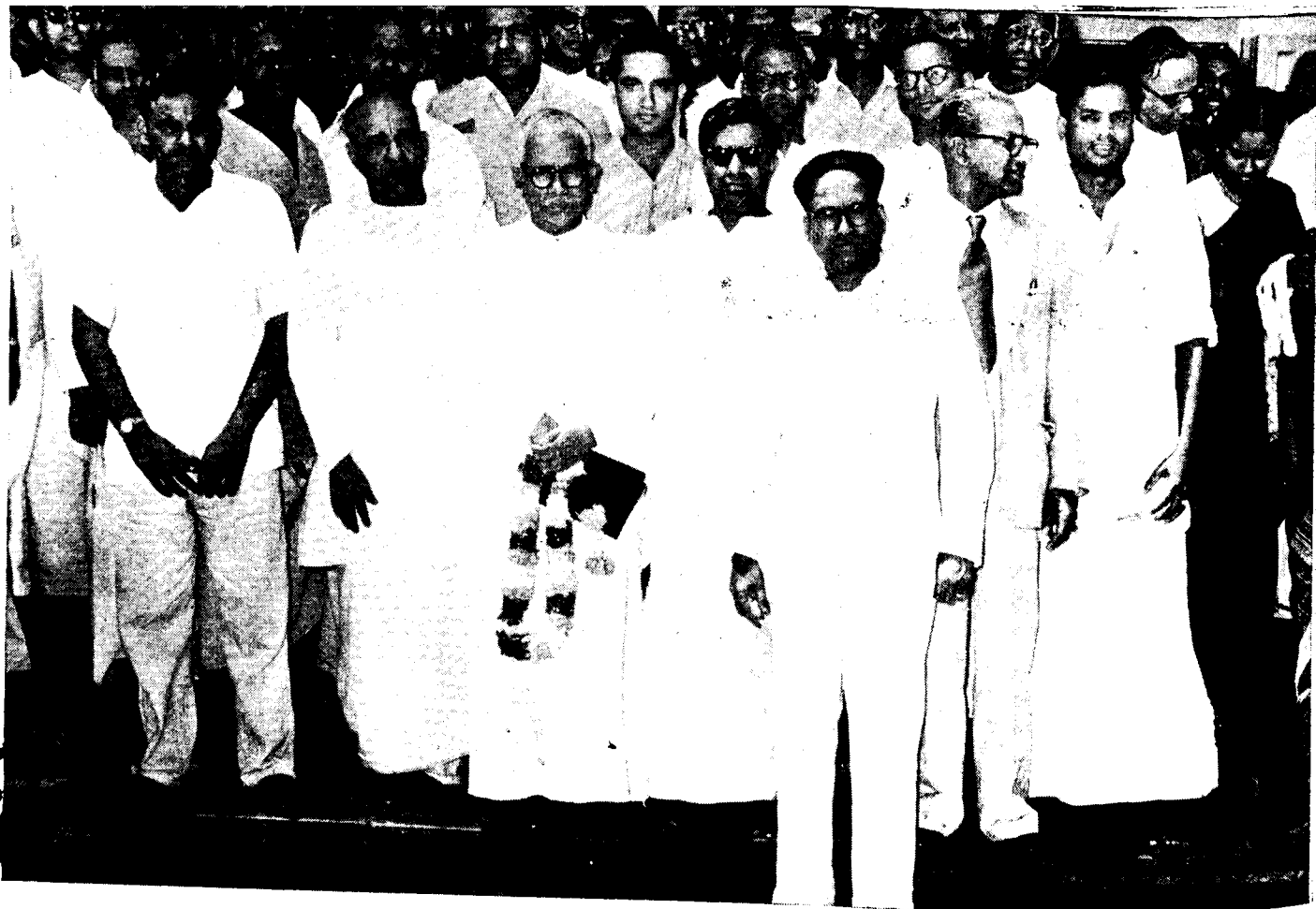
Our road needs have increased greatly now with the expanding economy of the country. Thousands of miles of new roads are needed to open up the villages and help in their development as also to foster trade and commerce on an increased scale.

At the beginning of the First Plan India had 97,000 miles of metalled roads and about 147,000 miles of unmetalled roads. During the Plan period about 6,000 miles of new surfaced roads and 20,000 miles of low-type roads are expected to have been added.

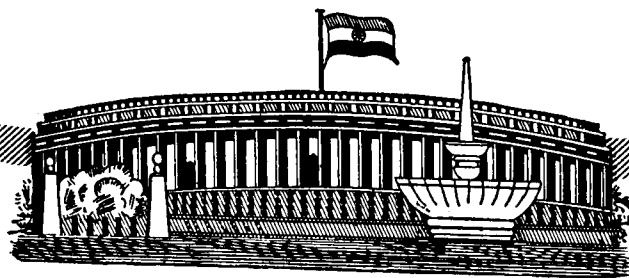
Under the national highway programme about 600 miles of missing road links and hundreds of culverts and bridges including 28 major bridges were

(Continued on the facing page)





A large gathering of friends and admirers saw Sri Bhaktavatsalam, Minister for Agriculture and Labour, off at Meenambakkam Aerodrome on the 1st June when he left for Bombay on his way to Geneva to attend the Conference of the International Labour Organisation.



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"WE SEEK TO SERVE AND NOT TO COMPETE"

July 1956

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Cover Page : Bearshola Falls, Kodaikanal.

Meenkara Reservoir Project

The first Irrigation Scheme under Second Plan

The Meenkara Project was originally considered in 1912 as a part of the Aliyar-Kollengode Project and again, in 1915 and 1929. The scheme was finally shelved being unremunerative. Food scarcity and economic distress in the district forced the hands of the Government to consider the scheme in 1947 along with other schemes. Investigation was taken up and completed in 1948, but the scheme was not taken up as preference had to be given to better schemes like Malampuzha, Mangalam and Walayar. However, the scheme was considered in connection with the Second Five-Year Plan and it was accordingly sanctioned.

The Meenkara River coming down from the hills south-east of Kollengode forms the boundary between Pollachi and Palghat taluks for a distance of about 10 miles up to Govindapuram in Mudalamada amsam, where it enters the Palghat taluk. About 3/4 mile below the Govindapuram road bridge on the Pollachi-Kollengode road a tributary called Papathippallam from Coimbatore district joins the main river. The river after its confluence

runs in a westerly direction for about 1½ miles and meets a steep rising hillock with exposed hard rock on the right side. It is proposed to construct the Meenkara Dam at this point and we have all assembled here just in rear of the alignment of the dam. About 1½ miles below the dam site there is a private masonry anicut called 'Kallukettya Challa Anicut', irrigating about 100 acres on the right side. About a mile below this anicut a steam called 'Chulliar' from Kollengode hills joins the main river. About 1 mile further down there is another private masonry anicut called 'Puliyanthoni Anicut' irrigating about 200 acres. Below this anicut the river is called Gayathiri River. After passing through Kollengode and Alathur, the river ultimately falls into the Bharathapuzha in Travancore-Cochin State limits near Lakidi Railway Station. The total length of the river from its origin up to its infall into the Gayathiri river is about 45 miles of which the tail reach of about 7 miles lies in Travancore-Cochin State limits.

The Meenkara Reservoir Project as now envisaged consists of a storage

reservoir of 315 m.c.ft. capacity across the Meenkara River near the hamlet of Mulapudur in Muthalamada village opposite to 21.6 mile of Pollachi-Kollengode road, the nearest railway station being Muthalamada. At the site there is good sheet rock rising almost vertically on the right margin of the river. In the bed of the river also, hard rock is exposed for a good length. This site is the best available in the locality. The Palghat-Pollachi Railway line is very near the site in question and the level of this line is the limiting factor in fixing the F.R.L. Hence the F.R.L. and the capacity have been fixed as 509.0 and 315 m.c.ft. respectively. The dam will be 3,160 feet long, out of which 2,860 feet will be in earth and the balance 300 feet in masonry. In the masonry portion there will be a spillway section within the river bed 89 feet long. The storage capacity as now fixed is 315 m.c.ft. which will be obtained by installing gates 15 feet high over the crest of the spillway section.

Two canals will take off for irrigating the ayacut proposed, one from the left of the reservoir direct and the other from above the existing Puliyanthoni Anicut 3½ miles below the dam. The right side canal which is 5½ miles long will irrigate 3,110 acres and the left side canal 3¾ miles long will irrigate 990 acres. Of the total ayacut of 4,110 acres, 1,867 acres will be double crop wet lands, 1,428 acres single crop which will be converted into double crop wet and the remaining extent being dry lands on which two crops will be raised by the Project water. The project is expected to yield an extra of 1,025 tons of rice annually. In favourable years a third crop can be raised on an area of 500 acres.

The total cost of the project is Rs. 49.56 lakhs including all charges. The project is programmed to be completed in two working seasons and with the ryots' co-operation it will be possible to reap the full benefits of the scheme immediately thereafter.

Salient Features

Drainage area of the river at the dam site	..	35 square miles.
Maximum flood discharge	.. ..	16,050 cusecs.
Full Reservoir Level	.. ..	+ 509.
Maximum Water Level	.. ..	+ 509.
Top of Dam	.. ..	+ 517.
Length of Dam	Masonry	 300 feet.
	Earth	 2,860 feet.
Average bed level of the deep river course	.. ..	+ 463.2.
Crest of Spillway	.. ..	+ 494.
Area submerged by the Reservoir at F.R.L.	.. ..	477.
Reservoir capacity	.. ..	315 m.c.ft.
River and left side canal sluices	.. ..	1 No. 5' x 6' with Sill at 473.25.
Right side canal sluice taking off at Puliyanthoni anicut.	.. ..	2 Nos. 5' x 2½' with Sill 374.0.
Length of left side canal	.. ..	3¾ miles.
Length of right side canal	.. ..	5½ miles.
Area benefited	.. ..	4,100 acres.
Cost of the Project	.. ..	49.56 lakhs

Brightening up the villages Madras Leads in Rural Electrification

SRI V. P. APPADURAI, Chief Engineer (Electricity)

Rural Electrification has two primary objectives; one to improve the economic status of the rural population by increasing the productivity of human and animal labour and the other to promote rural welfare by providing an environment equal in comfort and convenience to that enjoyed by the urban population. Thus rural electrification can be a powerful factor in preventing the exodus of the rural population to urban areas where higher wages and greater amenities exist.

The present Madras State has an area of 60,362 square miles and comprises 19,491 villages and 293 towns. Of a total population of 35,735 millions, 78 per cent, i.e., 27.90 millions live in villages. To Madras, just as for the rest of India, Rural Electrification has therefore a special significance as it offers the solution for increasing food production, bringing more employment to the Rural population, providing various amenities for healthy and happy living and thus arising their standard of living.

The Electricity Department of Madras since its very inception in 1927 has, as its main objective, the development of the available power resources of the State with power stations located at various places, transmission lines linking the power stations, sub-stations located at load centres, and a net-work of transmission lines, forming the power grid for distributing cheap electric power for industrial, agricultural and domestic purposes throughout the length and breadth of the State. There are now four hydro electric power stations and two thermal (steam) power stations in the grid with a total installed capacity of 256.5 Mega Watts.

The grid comprises about 12,000 miles of transmission and distribution lines of which transmission lines from 50 per cent.

Progress of Rural Electrification in the State

The Government of Madras have been attaching considerable importance to rural electrification in the past and Madras leads the rest of the States in the matter of number of villages electrified. There are at present about 3,221 villages electrified to the end of 1955-56, i.e., 16.50 per cent of the villages in the State have been electrified so far. With the Government of India loan of Rs. 300 crores for the years 1954-56, large scale programme of rural electrification has been possible and 829 villages have been connected to electric supply during the year 1955-56.

Out of 561,107 villages and towns in the Indian Union only 5,552 have been electrified by the end of 1954, i.e., only 0.99 per cent of the villages and towns were electrified by 1954.

The growth of the rural electrical development in the Madras State may be seen from the following figures:—

Year.	Number of villages electrified.	
Up to 1935-36		30
" 1940-41		740
" 1945-46		804
" 1950-51		1,613
" 1951-52		1,820
" 1952-53		1,981
" 1953-54		2,187
" 1954-55		2,392
" 1955-56		3,221 (approximately).

In the matter of Rural Electrification Madras definitely leads the rest of the States in India. Madras accounts for nearly 50 per cent of all villages electrified in India, and Mysore comes next in rank with 649 villages electrified by 1954 as may be seen from the following figures as on 31st December 1954:—

States.	Number of villages electrified having population below 10,000.		Number of small towns electrified having population between 10,001-20,000.	
Assam		10	.. ..	3
Andhra		295	.. ..	27
Bombay		261	.. ..	27
Bihar		96	.. ..	9
Madras		2,131	.. ..	66
Madhya Pradesh		48	.. ..	11
Orissa		21	.. ..	5
Punjab		210	.. ..	14
Uttar Pradesh		472	.. ..	35
West Bengal		70	.. ..	17
Hyderabad		3	.. ..	1
Mysore		649	.. ..	11
Madhya Bharat		20	.. ..	8
Pepsu		9	.. ..	2
Rajasthan		42	.. ..	13
Saurashtra		24	.. ..	..
Travancore-Cochin.		345	.. ..	29
Ajmer		3	.. ..	..

States.	Number of villages electrified having population below 10,000.	Number of small towns electrified having population between 10,001-20,000.	Year.	Number of pumpsets connected at the end of the year.
Bhopal	..	..	1935-36	269
Coorg	..	..	1940-41	2,589
Delhi	6	1	1945-46	5,435
Himachal Pradesh.	7	..	1950-51	14,626
Kutch	2	1	1951-52	17,879
Manipur	..	..	1952-53	19,799
Vindhya Pradesh ..	3	3	1953-54	21,733
Tripura	..	..	1954-55	24,654
Andaman and Nicobar Island.	3	..	1955-56	33,000
Jammu and Kashmir.	3	4		(approximate).
Total	4,733	288		

The table shows that Madras is far ahead of most of the other Indian States but she has still a lot more to achieve. It is proposed to electrify on an average about 500 villages per year during the Second Plan Period (1956-61).

It is estimated that over a 150 millions units have been consumed in the villages in 1954-55 forming about 20 per cent of the consumption in the State. The rural connected load, forms over 25 per cent of the total connected load on the grid.

Electricity in Agriculture

Electricity is used in villages chiefly for pumping water for agriculture (i.e.), nearly 70 per cent of the power consumed in villages. This forms 14 per cent of the total consumption in the State. There are at present nearly 31,000 pumpsets in the State using power from the grid. The increased use of electricity for pumpsets can be gauged from the following table which gives the number of pumpsets connected.

With a view to encouraging the use of electricity in agriculture, the Government offer electricity at very cheap rates, viz., 0.90 anna per unit, for the first 500 units per installed horse power per annum and 0.75 anna per unit for all in excess. There is an annual minimum guarantee of Rs. 6 per horse power connected, but, this annual minimum guarantee will be reduced proportionately to the number of days in which the well could not be used due to drought, provided the consumer sends due intimation of the fact as soon as the well becomes dry.

It may particularly be noted that no power cut was imposed on agricultural consumers during the acute water shortage in 1953 summer, when power cuts had to be introduced on all industries and domestic consumers. They are generally considered as essential consumers. New connections for agricultural purposes are treated on a priority basis. Based on representation made by agriculturists in drought affected areas, the Government have also very recently announced certain concessions to agricultural consumers in respect of collection of security deposit.

Processing Industries

Other uses to which electricity is put into in the rural areas besides lighting are processing industries of the locally grown agricultural products. Rice hulling, groundnut decorticating, oil pressing, sugarcane crushing, cotton ginning, tape weaving, etc., are some of the rural processing industries and at present about 3,000 such industries with a connected load of 33,000 K.W. are run on power in this State.

The approximate power requirements and output of some of these industries are given in the table on page 6 (Statement B.)

It has often been found economical by consumers to use a single motor to drive a number of different machines by means of a shaft with fast and loose pulleys as each of the machine has to run only for a limited number of hours in a day.

Power looms

Next to agriculture, handloom industry in India is the most important. Despite the strenuous competition from the large textile mills producing cheap cloth the handloom industry has held its own and in the overall interests of the rural populations, it is essential that this industry receives adequate support. This industry gives a subsidiary occupation to the agriculturist during periods when there is little or no cultivation work.

The output and wages in the handloom industry are however so very poor that this can be considered only as an alternative to unemployment. But by adopting small power looms, the output will increase several times with corresponding increase in wages.

MADRAS INFORMATION

A $\frac{1}{2}$ H.P. motor is adequate to drive one loom and often one operator can look after two looms. In one working day of 8 hours a powerloom can weave two sarees each of 9 yards by 45 inches, while with the handloom it would take 2 to 2 $\frac{1}{2}$ working days for making one such saree. The power required for one loom being very small, the energy charges are a small fraction of the working costs, but since the worker is able to obtain larger output with the power-driven loom, he is able to earn a reasonably good remuneration.

The figures in Statement C on page 6 give a typical comparison of the two types of looms on the assumption that they are operated for an equal number of days per year.

The use of a powerloom enables the workers to earn a large wage and the consumer to obtain cloth at a cheaper price.

Despite the attractive economy of the powerloom, there has not been much development of this type of load for the reason that the average handloom weaver is too poor to find the capital for the powerloom.

It is very interesting to note the recommendations of the Kanungo Textile Enquiry Committee which was appointed by the Government of India in 1952 to enquire into the textile industry. The Committee after examining 58 individuals and bodies and visiting 68 centres of textile industry have recommended a phased programme of the conversion of 12 lakhs of active handlooms into semi automatic looms or powerlooms to make the handloom technically more efficient. Under this programme 3 lakhs handlooms should be converted into 2.13 lakhs of improved handlooms and powerlooms over a period of six years and the conversion of the remaining looms should be carried out in two or three five-year periods so that in 15 or 20 years' time the entire industry will have been converted into decentralised improved handloom or decentralised domestic powerloom industry.

It is reported by the Committee that the handloom exports in 1953 totalled only 62.8 million yards out of a total export of 696.4 million yards. They were very pessimistic about the increase in the export in the coming years unless the economic and technical

efficiency of this industry increased which can only be achieved by the conversion to powerlooms as indicated above. It is further reported by the Committee that with the cottage powerloom unit the weaver produces per unit of time about four times as much cloth as the handloom weaver and therefore earns a better total wage than the handloom weaver.

The Committee recommended the establishment of special agency to deal with the planning and execution of the financing of the conversion of the handloom industry by stages into the improved handloom and powerloom industries.

Cottage Industries

The importance of the use of electricity in cottage industries in the matter of giving employment to the agricultural population during off-season periods is slowly being recognised. It is roughly estimated that for more than one-third of the year the cultivators are idle. Further if improved methods of agriculture are introduced other occupations will have to be found out for a large number of cultivators who may become surplus man-power on the farm. A variety of cottage industries have therefore been adopted to work on electricity, viz., silk throwing, knitting, machine carding for woollen drugget industry, tap weaving, button making, fountain pen making, etc.

The power requirements of these industries are given below :—

1. Silk throwing, $\frac{1}{2}$ H.P.—3 H.P.
2. Single unit powerloom, $\frac{1}{2}$ H.P.—3 H.P.
3. Knitting machines, $\frac{1}{2}$ H.P.—3 H.P.
4. Carding for woollen drugget industry, 3 H.P.
5. Tape weaving, $\frac{3}{4}$ H.P.
6. Button making, $\frac{1}{2}$ H.P.
7. Fountain pen making, $\frac{1}{2}$ H.P.

These industries are operating on a small scale in the districts of Salem, Ramanathapuram, Madurai, Chingleput and Coimbatore of Madras State. The main reason for their being not so popular as they may be expected to be, appears to be the lack of capital with the rural population for purchasing the machinery.

To encourage cottage industries, the Electricity Department is offering

power at the same cheap rate as for agricultural pumping. It is hoped that, with the introduction of the cheap electric power and the introduction of improved machinery required for the cottage industries with the necessary financial and technical assistance, the cottage industries will get a considerable fillip in the coming years. It is interesting to note that the Planning Commission is attaching great importance for these household and small industries in the draft recommendations for the formulation of the Second Plan. They consider that this would be the principal method of liquidating unemployment and also of creating a marketable surplus of consumer goods to meet the increase in demand arising from investments on heavy industries, construction work and expenditure on social work. Accordingly they have provided a sum of Rs. 40 crores per year or Rs. 200 crores for the Plan period. This forms about 14 $\frac{1}{2}$ per cent of the allocation of investment by way of industries.

A method of popularising the agricultural processing and rural industries will be by way of demonstration centres which will demonstrate the use of mechanized equipment of the types and sizes which can be conveniently adopted for the requirements of these industries. The object of these centres is to enable the rural worker to increase his production by the use of mechanized equipment and thus increase his earnings. Equipment of appropriate size is to be selected so as to ensure the overall cost of operation including the annual charges resulting in reducing the cost of production.

Sometimes the operations of farmers are in too small a scale to enable economical use of machines. They may not be able to own individually such costly equipments for the mechanization of the industry. In such cases the adoption of "Community facilities" on co-operative basis enables the rural population to derive the benefits of mechanized process.

Demonstration centres may be built up for individual industries such as the following :—

- (a) Powerlooms.
- (b) Pottery.
- (c) Metal work.
- (d) Cutlery.
- (e) Button making.
- (f) Shoe making.
- (g) Tailoring.

MADRAS INFORMATION

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These centres can be located at different places where there are concentration of rural peasants operating the respective industries. As soon as an experimental centre of each type operates successfully more centres on operational basis can be established.

Conclusion

Even though the Madras State leads the rest in the matter of rural electrification she has a lot more to achieve as only about 18 per cent of the villages have so far been electrified. The ambition of the State is to electrify every village within a short period. Towards this goal, it is proposed to electrify a minimum of 500 villages every year commencing from the Second Plan period.

The availability of electric supply in rural areas is not only a help to increase the agricultural output but is of considerable social importance.

The availability of electric light and running water with modern sanitation narrows the margin between the amenities of urban and rural houses. This should reduce the apparent comparative glamour of city life which is a contributing factor to the population drift from country side. With the supply of electricity the rural area becomes a bright centre of social life with more possibilities of cheerful living. The spread of electricity will raise the standard of living of the common man and bring brightness and happiness to every home.

Large Cattle Population of India

The total cattle population in India in 1952-53 stood at 155,099,000 out of which 49,848,000 were cows and 21,842,000 buffaloes yielding about 510,000,000 maunds of milk per year.

India produced 117.27 lakh maunds of ghee and 20.35 lakh maunds of butter in 1951. Nearly 1,407,200,000 eggs were produced during that period.

During 1951, there were 31,779,538 wooden ploughs, 931,110 iron ploughs and 9,863,111 carts in use in the country. Power driven sugarcane crushers numbered 21,228 as against 519,509 crushers operated by bullocks. Oil engines and electric pumps used for agricultural purposes were 95,140 and 29,834 respectively. The total number of tractors in use for agricultural operation was 8,354.

STATEMENT A.

Serial number and name of State.	Total number of consumers for agricultural supply.	Connected load in KW under irrigation.	Units sold in millions for irrigation.	Per capita consumption for irrigation.
1 Madras	22,555	94,716	101.129	2.77
2 Mysore	5,360	16,100	12.940	1.43
3 Andhra	2,359	8,444	7.266	0.36
4 Bombay	1,305	6,172	5.281	0.15
5 Uttar Pradesh ..	959	37,280	74.049	1.17
6 Travancore-Cochin ..	828	12,502	11.291	1.22
7 Rajasthan	654	3,350	1.798	0.12
8 Madhya Pradesh ..	615	1,400	0.824	0.04
9 Punjab	361	2,120	0.141	0.01
10 Bihar	333	3,731	6.225	0.15
Total for India ..	36,012	192,569	231.373	0.64

STATEMENT B.

Description.	H.P. of motor.	Output (in lb. per hour).	Consumption of electricity in KWH per 100 lb.
1 Rice huller and polisher (big).	25	2,400	0.8 to 1.0
2 Cotton ginning (double roller type).	4 to 5	78	2.75 to 3.0
3 Groundnut decorticator.	25	7,500 lb. of shelled groundnut.	0.25
4 Flour mill (for rice, ragi, cholam and wheat).	5 to 7.5	180 lb. of flour.	1.2 to 1.5
5 Oil processing (Pinto oil process for gingelly, coconut, castor and groundnut seeds).	3	15 lb. of oil and cakes for cattle fodder (for gingelly).	5.0
6 Sugarcane crushing ..	3	1,000	0.25

STATEMENT C.

	Handloom.	Powerloom.
Capital cost per loom ..	RS.	RS.
Interest and depreciation	400	6,000
Operation and maintenance	20	600
Wages for the operator	30	200
Energy charges for 280 days of 8 hours/day at 1 anna per unit.	750	565
Overheads	50	63
	850	1,578
Number of sarees (9 yards by 45 inches) made per annum per loom.	125	400
Cost of production per saree	RS. 6.8	RS. 3.9

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MADRAS INFORMATION

Workshops for Carpentry and Blacksmithy

The Government have sanctioned a scheme for the establishment of two model combined workshops for carpentry and blacksmithy with mobile units attached to each, one at Tirunelveli and the other at Kozhikode.

Sanction has been accorded to the training of 15 artisans in the carpentry section and 20 artisans in the blacksmithy section for a period of one year and the payment of a stipend of Rs. 30 per mensem to each artisan.

Since the workshops will not be able to cover more than a restricted area, a mobile unit equipped with improved modern carpentry and smithy tools will be attached to each workshop. The mobile workshops will visit and stay in each village for a few days, teach the village craftsmen the method of using the improved tools and equipments and where necessary, supply them with improved tools and appliances on easy terms. They will again visit the villages after two or three months, to see whether the craftsmen are correctly following the improved technique.

A warning

It has been brought to the notice of the Government that some private persons styling themselves to be firms of Industrial Engineers and Experts have used the name of Director, Small Scale Industries and advertised in the dailies asking the applicants desirous of securing loans from Government or seeking information to remit a sum of Rs. 7-8-0 along with such application.

The public are hereby informed that the said advertisement was not issued by any officer of the Government. All applications for State Aid or other particulars for loan, etc., to small scale and cottage industrialists are obtainable free of cost directly from the office of the Director of Industries and Commerce, Chepauk, Madras-5, or the office of the Assistant Director of Industries and Commerce in each district. Similarly for obtaining any technical help or advice from the Government, Department of Industries and Commerce, no fee is payable. Such of those who make payments to private firms, individuals, institutions, etc., in the hope of getting aid from Government will do so at their own risk.

Rural Electrification

New villages electrified during April 1956

Village.	Taluk.	District.
<i>Pykara Electricity System.</i>		
1 Poravipalayam ..	Pollachi ..	Coimbatore
2 Palaya Unjapalayam ..	Avanashi ..	Do.
3 Pudu Unjapalayam ..	Do. ..	Do.
4 Alampalayam ..	Do. ..	Do.
5 Rakkiapatti ..	Palladam ..	Do.
6 Rangasamudram ..	Coimbatore ..	Do.
7 Kaliannanpudur ..	Do. ..	Do.
8 Komarapalayam ..	Gobichettipalayam ..	Do.
9 Ammapatti ..	Udumalpet ..	Do.
10 Vellandhi ..	Periakulam ..	Madurai.
11 Siviarpalayam ..	Gobichettipalayam ..	Coimbatore.

Mettur Electricity System.

1 Hyderpuram ..	Gudiyattam ..	North Arcot.
2 Arjunapuram ..	Do. ..	Do.
3 Gopanpatti ..	Do. ..	Do.
4 Venkatapuram (Pakkam) ..	Do. ..	Do.
5 Kavanoor ..	Do. ..	Do.
6 Pavalthorai ..	Do. ..	Do.
7 Kalpoondi ..	Tiruvannamalai ..	Do.
8 Nedumpalli ..	Arkonam ..	Do.
9 Kilravandavadi ..	Chengam ..	Do.
10 Kanniyanoor ..	Wallajah ..	Do.
11 Kilpadi ..	Do. ..	Do.
12 Sengadu ..	Cheyar ..	Do.
13 Zamin Kuldigai ..	Vellore ..	Do.
14 Poman Thangal ..	Polur ..	Do.
15 Gingee ..	Gingee ..	South Arcot.
16 Sankarapuram ..	Do. ..	Do.
17 Sirukadambur ..	Do. ..	Do.
18 Goddam ..	Gudiyattam ..	North Arcot.
19 Madavalam ..	Tiruppattur ..	Do.
20 Madapalli ..	Do. ..	Do.
21 Sellandampalli ..	Do. ..	Do.
22 Krishnapuram ..	Gingee ..	South Arcot.
23 Thoppur ..	Omalur ..	Salem.
24 Denkanikottai ..	Hosur ..	Do.
25 Thoppapatti ..	Rasipuram ..	Do.
26 Ponparappipatti ..	Do. ..	Do.
27 Ramayeeppatti ..	Do. ..	Do.
28 Perivanavasi ..	Omalur ..	Do.
29 Kelamangalam ..	Hosur ..	Do.
30 Viraponty ..	Salem ..	Do.
31 Thoppapatty ..	Rasipuram ..	Do.

Papanasam Electricity System.

1 Suthamalli ..	Tirunelveli ..	Tirunelveli
2 Venkatachalapuram ..	Sattur ..	Ramanathapuram.
3 Valavallan ..	Srivaikuntam ..	Tirunelveli.
4 Siruthondanallur ..	Do. ..	Do.
5 Thirayanvila ..	Nanguneri ..	Do.
6 Idayangudi ..	Do. ..	Do.
7 Battarpuram, hamlet of Eruppuvari.	Do. ..	Do.

(Continued on page 11)

12 Crores-Scheme for the Development of Fisheries



Fishermen on the Coromandel Coast.

Tens of thousands of intrepid fishermen in hundreds of villages strung out along the 3,500-mile-long seacoast of India make their living by catching and selling sea fish. In villages spread out along the banks of numerous rivers, lakes and ponds in the country thousands more make a living by catching fresh-water fish.

Much progress has been made towards greater production both of fresh-water fish and of sea fish through the initiative of the Central and State

Governments and from the technical and other assistance received from the Indo-U.S. Technical Programme and the Indo-Norwegian Fisheries Community Development Programme.

As against Rs. 5 crores allocated in the First Five-Year Plan, the Second Plan has earmarked a total outlay of about Rs. 12 crores for the development of fisheries—Rs. 4 crores on the part of the Ministry of Food and Agriculture and about Rs. 8 crores in the plans of States.

While statistics of fish production are still far from adequate, it is estimated that at the beginning of the First Five-Year Plan the total production was about a million metric tons, of which about 20 per cent was held by fishermen for domestic use and the balance represented sea fish and the marketable surplus of inland fish. During the First Plan, fish production increased by about 10 per cent, the production in 1955-56 being about 1.1 million metric tons. It is expected that during the Second Plan, fish production will rise by about 33 per cent, i.e., 1.4 million metric tons.

The development of inland fisheries was begun on a small scale even before the First Five-Year Plan but has since been intensified.

Greater part of the programme of fisheries development, however, relates necessarily to marine fisheries. And the tasks to be undertaken fall broadly under four categories: first, improvement of fishing methods; second, development of deep-sea fishing; third, the provision of fishing harbours, and lastly, the organisation of fish transport, storage, marketing and utilisation.

Eggs for hatching of the following breeds of poultry are available for sale at the Agricultural College Dairy, Coimbatore.

- | | |
|--------------------------|--------------------|
| 1. White Leghorn .. | } Rs. 3 per dozen. |
| 2. Rhode Island Red. | |
| 3. Black Minorca .. | |
| 4. Light Sussex .. | |
| 5. Australorps .. | |
| 6. Anconas .. | } Rs. 9 per dozen. |
| 7. Barred Plymouth Rock. | |
| 8. Black Leghorn .. | |
| 9. New Hampshire .. | |
| 10. White Wyandotes | |
- Sales Tax, Packing and Railway freight extra. Payment to be made in advance.

Educative Value of Exhibitions

The story of Agricultural progress told in Photos and Charts

The educative value of exhibitions cannot be over emphasised. At the present day, it is one of the most powerful medium for educating the vast masses in this country in regard to any new innovation. Exhibition, being an assemblage of concrete things, makes a deeper impression on the common man. Recently, the story of agricultural progress of this country was told with the help of photographs, charts and models in the Pushkaram Exhibition at Rajahmundry.

Foodgrain production which was 54 million tons in 1950-51, has been stepped up to 65 million tons by the programmes of the First Five-Year Plan and the target for the Second Plan is 75 million tons. Cotton production, likewise, has risen from 2.9 million bales in 1950-51 to 4.2 million bales with the First Five-Year Plan and the target for the Second Plan is 5.5 million bales. Oil seeds production, standing at 5.5 million tons at the conclusion of the First Plan, has the target of 7 million tons in the Second Plan. All these facts have been brought out in a manner easily intelligible to the masses at the People's Plan Stall.

Two other features in the Section which grip the attention of the crowds are the models illustrating the Japanese method of paddy cultivation and soil conservation methods. Both models are instructional and give clear details of the operations. In the first model, the agriculturist is shown how to prepare the field, handle manuring and sowing and finally transplant the seedlings. In the second, two three dimensional models, side by side, show the same area ruined by soil erosion and made fertile again by various conservation techniques like afforestation, terracing, contour bunding and strip cropping.



Visitors studying the technique of Japanese method of paddy cultivation at the People's Plan Stall at an Exhibition.

The Exhibition has also enabled the people to realise that the total area under irrigation in India, which was 50 million acres in 1950-51 has been stepped up to 67 million by the First Five-Year Plan, while the Second Plan target is 88 million acres. The production of electricity stood at 2.3 million KW in 1950-51 and the programmes of the First Plan have stepped it up to 3.4 million KW. A hundred per cent increase is envisaged in the Second Five-Year Plan as the target is 6.8 million KW.

Photographs of Lower Bhavani, Tungabhadra, Tilaiya, Papanasam,

Hirakud, Mayurakshi and other projects and three dimensional models of the Bhakra Dam, the Tungabhadra project and the Bokaro Thermal Power Station further reinforce the impact of the magnitude of the programmes on the masses.

The total balance in the Post Office Savings Bank Accounts in India stood at 256.5 crores in 1955 as compared with 185.1 crores in 1951.

Radio brings News of the World to the Village

Community listening for Entertainment and Education

SRI M. N. PARTHASARATHY, Radio Engineer, Madras

The sylvan surroundings of the village of Komarapalayam on the banks of the river Cauvery was in the year 1938, the scene of the beginning of a silent yet fascinating revolution—a revolution which has brought about a remarkable change in the economic and social structure of the rural areas of our State. That was the occasion of the introduction of prohibition, as an experimental measure in the first instance, in the District of Salem by the first popular Ministry, under Sri C. Rajagopalachari. That was the occasion, when the ex-addict pining for his favourite beverage was allocated to a place where there was free musical entertainment for him. That was the first Community Radio Receiver installed by the Government to provide a counter attraction to the ex-addict. He who first came in curiosity remained to listen. The educative and entertainment value of the programmes broadcast was not lost upon him. He became a regular listener. Listening to Community Broadcasts became a part of the daily routine of the people of the village.

The State Broadcasting Department was created in 1938 to install and maintain Community Receivers in the prohibition districts. The first hundred receivers installed in the villages at Government expense proved so popular that pressing demands for similar installations were received from hundreds of other villages of both prohibition and non-prohibition areas. The finances of the Government would not permit such large scale free installations. Government therefore, decided to install sets only if contributions were received from village Panchayats. Payment of full cost of the receivers and cost of maintenance would not deter the villagers from approaching

the Government for installation of Community Receivers. The demand from the public was steadily increasing.

The Department purchased in bulk quantities domestic type of commercial receivers from the open market. They were suitably modified so as to make them as fool-proof as possible. The tuning of the receiver was arrested to the operating frequency of the regional transmitter. The loudspeaker inside the receiver was removed and housed in a separate cabinet or aluminium horn with an extension cable of five yards, so that the receiver might be kept safely inside a room, and the loudspeaker alone kept outside in the open place in order to enable the listeners to assemble and listen comfortably.

The installation of Community receivers on a large scale left on the Government the responsibility of maintaining them also properly so that all the receivers work continuously without breakdown. In order to maintain efficiently these sets, departmental service stations were established in the heart of each district. Every service station is in the charge of a Radio Supervisor. He has a battery charging plant and test equipment and tools to attend to minor defects in receivers either on the spot or at his headquarters.

Periodically once in 15 days or 22 days depending upon the battery drain of the set, he will send through his peon charged batteries to centres in replacement of discharged batteries at the by the peon to the service station for charging.

In addition, whenever a breakdown of a receiver is intimated to him by the

centre, the Supervisor rushes to the place, services the receiver and restores it to proper working condition. In case he is unable to restore the receiver within a day or two, he installs at the centre a standby receiver which will work till the original set is serviced completely and reinstalled at the centre. All these efforts are taken to see that every centre gets unbroken community-listening facilities.

The jurisdiction of a Supervisor is determined by the density of sets in the area. A number of such Supervisors is put under the control of an Assistant Radio Engineer. The Assistant Radio Engineer has adequate facilities for attending to all types of the major repairs of radio receivers and any receiver received by him from a Supervisor for major servicing is serviced, restored to proper working order and returned to the Supervisor for re-installation at the centre.

It is the Primary duty of the Assistant Radio Engineer to see that the Radio Supervisor does his work properly and provides continuous unbroken service at the village.

In the course of time, it was found uneconomical to install in the villages the commercial type of receivers selling in the market. A Community receiver specially suited for the needs of the villages in Madras was designed and developed by the State Broadcasting Department after continuous research and experimentation. These receivers were assembled in the Laboratory and workshop of the department and sent out for installation in the villages. It was possible to economise considerably on the cost of installation by this means. Where villages were not electrified, sets operated by six volt storage battery were installed. Field

service stations were opened, depending on the concentration of the sets, to attend to the periodical charging of the batteries and also to the servicing of the receivers when they become defective in the course of their working. The aim was to see that even the remotest and most inaccessible of places were provided with community radio receivers as they are the places which require them most. No labour or expenditure is spared in maintaining the community receivers even in such places as remote islands in the Arabian sea, a hundred miles off the mainland or in the higher altitudes of the Nilgiris and Kodaikanal which can be reached only by walking as long as 15 miles.

In order to make the villager have an abiding interest in the set installed in his village and also to lessen the financial burden on the State, it was decided to make the villager share along with the State the cost of installation and maintenance of the sets. He has to pay in full the initial cost of installation and a portion of the annual expenditure on the maintenance of the set. Perhaps, Madras is the only State in India which is imposing this financial burden on the village listener. Yet, this is the State which has the largest number of community receivers in India. There are nearly 2,400 such receivers in this State today. It has now been felt that still greater facilities should be provided for community listening and the Government of India have volunteered to subsidise to the extent of 50 per cent of the cost of installation of community receivers.

The Government of Madras decided to avail themselves of the subsidy offered by the Government of India and so ordered that the new specifications laid down for the Community receivers should be accepted and that 800 receivers according to these specifications should be manufactured in 1955-56. Accordingly the State Broadcasting Department gave up the type design of sets which had till then been manufactured and evolved designs for three types of sets satisfying the specifications of the Government of India. Three sample sets were sent to National Physical Laboratory of India for test and approval and all the three types have been approved by them.

It had been proposed to manufacture during the Second Five Year Plan 2,000 sets every year, 2,000 for installation in this State and 1,200 for supply

to the Government of India. It would, however, appear that the Government of India have declined to offer the subsidy and also gone back over their offer to take 1,200 sets per year manufactured by the Department. On account of these factors, The State Government have since decided that the State Broadcasting Department should manufacture 800 receivers for 1956-57 and that the future policy in regard to it would be reviewed and decided at the end of the year.

Under the Second Five Year plan a proposal has been made to introduce radio relay or redifusion services in a few towns. Wire Broadcasting installations are in operation in a number of Municipal towns. At these places, loud speaker connections can be given to private consumers and nominal hire charges collected. Such a system is very widely in use in Europe and United Kingdom. This is in use even in adjacent Ceylon where in the City of Colombo there are nearly 10,000 private consumers. In view of the fact that for quite some time to come, a radio receiver will be beyond the reach of the common man and also that radio relay can serve in non-electrified areas also,

there is considerable scope for such services in our country and more so in our State, provided the Government of India accord the necessary permission to proceed with the work.

Intensive Manuring Scheme

The Government have sanctioned the continuance of the Intensive Manuring (Paddy) Scheme during 1956-57 under the control of the Board of Revenue in all the districts except the Nilgiris and Madras during a period of six months from May, 1956 to December, 1956. The date of commencement in each district will be fixed with reference to the local needs and conditions.

The loans will be sanctioned by the special revenue staff to be appointed for the purpose, while in the National Extension Scheme areas, Block Development Officers will continue to sanction the loans as in previous years. The loans will be granted on personal security at Rs. 35 per acre up to a maximum of Rs. 500 per individual. A sum of Rs. 57 lakhs has been sanctioned for expenditure on account of the disbursement of loans.

(Continued from page 7)

Village.	Taluk.	District.
<i>Papanasam Electricity System—cont.</i>		
8 Narasingam	Madurai	Madurai.
9 Thirumughur	Do.	Do.
10 Puduthamaraiipatti	Do.	Do.
11 Melakkal	Nilakottai	Do.
12 Kalkurichi	Aruppukkottai	Ramanathapuram.
13 Johilpatty	Do.	Do.
14 Alagianallur	Do.	Do.
15 Keela Alagianallur	Do.	Do.

Madras Electricity System Distribution.

1 Acharapakkam	Madurantakam	Chingleput.
2 Anayappanallur	Kanchipuram	Do.
3 Ariyalur	Saidapet	Do.
4 Athippakkam	Do.	Do.
5 Chokkanallur	Sriperumbudur	Do.
6 Elavambedu	Ponneri	Do.
7 Erivoy	Kanchipuram	Do.
8 Iniliancheri	Trivellore	Do.
9 Kaliyampoondi	Kanchipuram	Do.
10 Kannigaiperu	Trivellore	Do.
11 Katchur	Madurantakam	Do.
12 Karanai	Kanchipuram	Do.
13 Kottaimedu	Do.	Do.
14 Padinallur	Saidapet	Do.
15 Patterai	Trivellore	Do.
16 Soranjeri	Sriperumbudur	Do.
17 Vilingambakkam	Do.	Do.
18 Voyanallore	Do.	Do.

Expansion of Medical Facilities

Ten crores provided for new Schemes under the Second Plan

LIEUT.-COL. SANGHAM LAL, *Director of Medical Services.*

In a vast country like India with a population of nearly 360 millions, of which about 85 per cent live in 563,000 villages, the problem of medical relief and public health presents a serious challenge. Life in a village is not easy. Water supply is unsatisfactory and road communications in rural areas is very poor. Social amenities or cultural activities are rare. The standard of education and economic status of the villages is low. The sanitary conditions are primitive and the greater part of rural population suffer from general malnutrition and are subject to periodic epidemics, e.g., cholera, typhoid, dysentery, etc. A very low standard of personal and environmental hygiene is met with among a very large section of people in both urban and rural areas. There is a great dearth of qualified doctors, nurses, health visitors and other Medical and Public Health personnel. The existing organizations for Curative and Preventive Health work are totally inadequate for the task facing them. On the medical side, existing staffs are struggling with large number of patients crowding the hospitals and dispensaries. On the public health side, the energies of the meagre staff employed in the State are mainly concerned with measures for the control of epidemic diseases. To sum up, various factors responsible for the low level of health in this country are prevalence of malnutrition among an appreciable section of the people, serious inadequacy of existing provisions for affording health protection to the country and a group of social causes, e.g., poverty, unemployment, illiteracy and ignorance of hygienic mode of life.

India launched on a First Five-Year Plan which came to an end in March

1956. In this plan, some—though not adequate—emphasis was laid on improving Medical and Public Health standards of the country. The Second Five-Year Plan which has come into operation from 1st April 1956, is much more ambitious and in it great stress has been placed on improving the health of the people. A total provision of Rs. 925.63 lakhs has been made for medical schemes.

The various schemes proposed in the Second Five-Year Plan will give an increase of 5,500 beds in the total bed-strength of the medical institutions in this State, i.e., an increase of about 43 per cent over the existing bed-strength of 13,100. The schemes would, however, ensure that the standard of treatment in the hospitals and of teaching in the various colleges will be very considerably improved and it is with this end in view that a number of special schemes have been drawn up for the improvement of the Medical Colleges and the major hospitals attached to medical colleges.

The various improvements to the Medical Colleges and attached hospitals have been prepared with the following objects in view:—

(a) To make the facilities available for teaching under-graduates and post-graduates up to date and modern both in the pre-clinical and the clinical departments.

(b) To promote research in the various departments by providing adequate equipment and staff.

(c) To provide healthy and residential quarters to the students and inmates and promote their general well-being.

The Madras Medical College has been without a hostel so far and the construction of a hostel has been provided for. In the General Hospital, Madras, it is proposed to provide facilities for a higher standard of treatment in Thoracic Surgery, Cardio Vascular Surgery, Neuro Surgery, etc. Additional equipment has also been proposed for opening an artificial limb centre in association with the Orthopaedic department and a Museum for the Pediatric Section. Provision for the most modern equipment for Radio Therapy treatment in the X-ray department has also been included in the proposals.

A comprehensive scheme of improvements to the district headquarters hospitals has been drawn up. All these hospitals are largely overcrowded and the improvements contemplated include expansion by the construction of new buildings as well as additional equipment and staff to provide additional facilities for treatment. At the end of the plan period, there will be an increase of 2,028 beds in all the district headquarters hospitals put together. In addition, Tuberculosis, Venereal diseases and Dental clinics will be opened in each hospital or the existing clinics improved in accordance with the All-India Plan.

Full time Family Planning Clinics have already been opened in three Government Women and Children Hospitals in the City of Madras and in four district headquarters hospitals. Part time Family Planning Clinics have also been sanctioned for all the other nine district headquarters hospitals. It is proposed to sanction full time Family Planning Clinics in these nine district headquarters hospitals also during the Second Five-Year Plan.

The Plan provides for the Government taking over 28 taluk headquarters hospitals now run by local bodies. These, as well as the taluk headquarters hospitals already under Government management will be improved. It is proposed to have a bed-strength of at least 50 in each taluk headquarters hospital and at the end of the Plan, the total bed-strength in these hospitals will have been increased by 1,280.

The construction of quarters for nurses will be undertaken wherever necessary in the district and taluk headquarters stations. One hundred and forty additional primary health centres will be opened in the National Extension Service Blocks in the Plan period. It is proposed to open twelve additional subsidiary centres for the treatment of leprosy in places where there is high incidence of the disease and the scale of assistance for private bodies doing leprosy work will also be increased. The Mental Hospitals at Madras and Kozhikode will be improved and in addition, a home for mental defectives will be opened in the Mental Hospital, Madras. A new Mental Hospital is proposed for Madurai. A chronic diseases hospital with a bed-strength of 500 will be opened in the City and this will help to relieve the congestion in the various City hospitals. The construction of an Infectious Diseases Hospital at Madurai has been approved by Government and will be implemented during the Plan period.

In order to promote research in the various fields of Medical science, the Government have been giving a grant of Rs. 25,000 per annum to the Madras State Research Committee. During the Second Five-Year Plan, the amount of annual grant will be doubled and it is proposed to give a grant-in-aid of Rs. 50,000 per annum. This will help to expand our research activities.

There are special training schemes for technicians, nurses, maternity assistants, opticians and pharmacists and a scheme for deputing 100 teachers for training in the United Kingdom to handle various subjects in the Medical Colleges.

Ninety rural dispensaries of modern medicine will be provincialised during the Plan period and in addition, the doctors in 25 Local Fund and Municipal hospitals and other dispensaries run by local bodies will be provincialised.

Extension of Rural Medical Relief by opening a large number of Primary Health Centres deserves special mention as it is felt that in this scheme lies the answer to the problem of reaching the people in the villages and giving them relief and the important feature of integration of curative and preventive aspect. It is anticipated that the major part of rural area in the country is to be covered by National Extension Services by the end of the Second Plan. Each Community Project is intended to cover a rural population of 200,000 divided into three Development Blocks taking an average population of about 67,000. Population in one Project area is scattered over about 40 square miles in villages each with a population between 300 to 1,000. As already stated, the conditions in these villages are primitive as far as environmental sanitation and health services are concerned. The following outline of health service would be established.

Primary Health Centre

This will be the focus from which health activities will radiate into the area covered by one development block. The centre will have a dispensary with a consulting room with diagnostic facilities and a ward of six beds will be provided. The services to be provided will include—

- Medical Relief.
- Maternity and Child Health work.
- School Health.
- Health Education.
- Environmental hygiene including sanitation and anti-malaria measures.

The Medical Officer, Compounder and Health Inspector will be located at the Health Centre. Four Maternity Assistants would on the other hand be made to live in selected places within the area covered by the Development Block. The Maternity Assistants may be given some training in nursing to help them to provide better domiciliary service.

The Medical Officer will be responsible for both curative and preventive health work. He will thus not only attend to the dispensary but also supervise the work of the Public Health Staff. He will periodically visit the villages in the block by a definite programme.

The Health Inspector will visit the villages periodically, give advice and instruction regarding protection of water supply, sanitation and drainage and also be in charge of protective and inoculation work.

Health Visitors will supervise the work of Maternity Assistants and be responsible for ante-natal and post-natal work. They would also take part in health education and Family Planning through personal talks in the homes.

The Secondary Health Centre would be located at headquarters of each project—in most cases there would be hospital facilities (Taluk Headquarter hospitals).

Functions of Secondary Health Centre.

There will be a Medical Officer with public health experience in charge of Health Services of each Project. He will exercise Supervisory control over all curative and preventive health work done in the whole area. He will periodically inspect the three health centres and act as a senior adviser in all health matters to the Project Administration. As environmental hygiene and sanitation has been given top priority, an assistant Public Health Engineer is essential for organising and supervising the water-supply, drainage and sanitation.

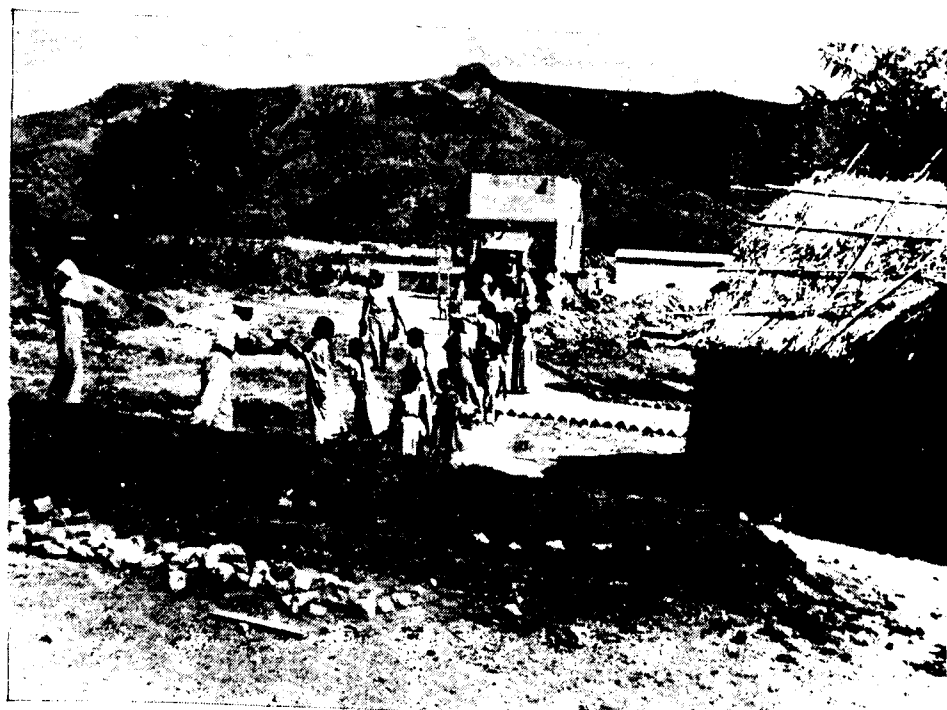
The Lady Doctor in charge of Maternity and Child Welfare Services will periodically visit Health Centres, supervise the work of Health Visitors, Maternity Assistants and take part in domiciliary midwifery when necessary.

Health Education must form an essential part of any health scheme. The simplest laws of health, hygiene and sanitation are unknown to many of our people. The health personnel employed in the Project must take an active part in the dissemination of knowledge so essential for man's well being. There must be full co-operation between Health and Education personnel in this respect and such education must begin from the child and go right up to the oldest adult.

While there has been considerable improvement in the matter of provision of medical relief in recent years and much has been achieved still much

(Continued on page 20)

Cadet Corps Builds a Colony



Training in democratic leadership—900 N.C.C. Cadets complete camp in Coimbatore.—Social service is not a new thing for the N.C.C. In the Madras State, in previous such camps, the cadets built a colony of 53 houses for slum dwellers at Chetput in Madras, constructed a tank bund on the hill slopes at Pennalurpet, besides a mile-long irrigation canal now feeding 78 acres of land, and built a 3½-mile long road and desilted a tank at Chinnal-patti in the Madurai district.



Auxiliary Cadets Corps Camp inaugurated by Sri R. A. Gopalaswamy, Education Secretary, at the Engineering College, Guindy.

Expansion of A.C.C.

In pursuance of the decision to considerably expand the Auxiliary Cadet Corps, nearly 4,000 male teachers and over 250 lady teachers of High Schools in 7 different States are being trained during the current vacation period. A phased programme has been drawn up for the expansion of the A.C.C. during the second Five-Year Plan. The training camps now being organised are intended to meet the needs of expansion of the A.C.C. during the first year of the Plan period.

The primary aim of the training courses will be to acquaint the teachers with the Cadet Corps movement and to develop in them initiative, leadership and a spirit of co-operation. After training, these teachers will return to their respective schools where they will select and train cadets. Each teacher is required to train a troop of 50 cadets. The teachers who volunteer for this course are selected by the Directors of Public Instruction in different States. The camps, organized and run by the N.C.C. Circle Commanders, are now being held in 7 States, namely Andhra, Bihar, Madras, Travancore-Cochin, Saurashtra, Madhya Bharat, and Jammu and Kashmir.

The Role and Responsibilities of Labour Officers

Addressing recently the conference of the officers of the Factory and Labour Department, Sri M. Bhaktavatsalam, Minister for Agriculture and Industries, observed:

"Labour occupies an important position in the life of a nation and no scheme for raising the general standard of living can be successful without the active co-operation and help of labour. To keep labour contented and to enable it to put forth its best, special laws have been enacted to ensure adequate working and living conditions for them. Yours is the onerous duty of enforcing these labour laws. On your successful working depends the development of our industries and improvement in production.

"The directive principles of the State policy laid down in the Constitution

Education is presumably meant to fit an individual as well as the social group to live the good life and to take us to the Welfare State that we aim at. This must lay stress on individual development, in character training, etc., and the capacity to co-operate with others in the social framework that is gradually evolving.

—Prime Minister of India.

of India lay much stress on the protection and welfare of workers. In the labour policy of the First Five-Year Plan emphasis was placed on the effective administration of labour laws.

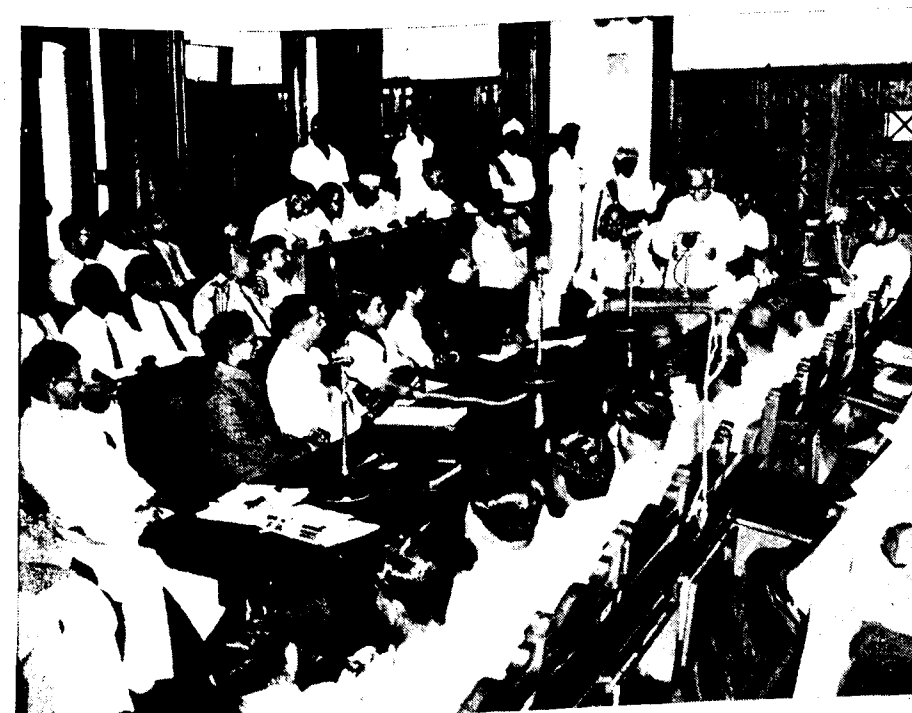
In its essentials the labour policy and approach to industrial relations outlined in the first plan will also hold good for the period of the Second Plan. Much therefore depends on the way in which you go about your task of enforcing the labour laws.

"While labour welfare is the prime consideration in your work, I would at the same time like to remind you that a strict enforcement of the labour laws need not necessarily lead to the harassment of the industrialists.

"A rapid industrialisation with particular emphasis on the development of basic and heavy industries is one of the important objectives of the Second Five-Year Plan. For its successful implementation and for bringing about increase in productivity association of labour with managements and the improvement of industrial relations are essential. In this sphere the officers of your department, especially those on the labour side, can play a very effective part. Your aim should be to promote mutual negotiations and settlement of disputes by conciliation. The Government are aware that the existence of more than one union in industries has not been conducive to good industrial relations. A Bill for the recognition of a single trade union in each industry with certain rights conferred on them is under consideration.

"I am sure you would continue to maintain the high traditions and standards in the administration of various laws for which this State has been noted. You should never falter to do what is just and proper."

Motor spirit of the value of about Rs. 1,26,34,326 was exported from India last year. The maximum quantity valued at about Rs. 23,39,898 was exported to Australia.



Sri Bhaktavatsalam, Minister for Labour, addressing the Labour Officers' Conference.

Tree-planting for Plenty

July 1st week—Seventh Vanamahotsava

Vanamahotsava initiated in 1950 as a part and parcel of our national endeavour for reconstruction and regeneration, is gathering momentum year after year. Madras State, as in many other fields of national importance and popular welfare, is in the forefront of the Tree Planting Campaign. The progressive numerical increase in the annual tree-planting shows the amount of enthusiasm and vigour that Vanamahotsava has instilled in the minds of people. In the year 1950, 82 lakhs of trees were planted in Madras State of which 40 lakhs survive. In 1951-52, 79 lakhs and 90 lakhs of trees were planted of which 36 lakhs and 40 lakhs respectively survived. During

1953 since the formation of Andhra about 52 lakhs of trees were planted in the present State alone while, in 1954, 52 lakhs were planted and in 1955 the number increased to 57½ lakhs. The target for this year is 60 lakhs. Although the planting campaign may commence from July 1st they can go on till the end of October.

"The object of Vanamahotsava is not merely to plant trees formally here and there but to transform both the landscape and man's mind. Our land was once covered with trees and our religious traditions are bound up with forests. The case for increasing the tree potential of our towns and villages,

however, rests not on sentimental grounds but on hard utilitarian considerations. Well managed plantations can provide shade, shelter and fodder for livestock. Small timber and firewood for the community and enable cowdung to be used for fertilising the fields instead of being burnt for cooking food. Massed tree groves will mitigate the regions of the climate. Tree will add colour and beauty to our drab villages."

The State Government have made arrangements for a successful tree-planting campaign this year and it is hoped that the 7th Vanamahotsava will have greater support and co-operation from the public.

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Chief Minister Sri K. Kamaraj receiving Acharya Vinoba Bhave at the State border, near Tiruvellore on 13th May 1956 when he started his walking tour of Madras State.



The Acharya talking to the villagers.



The Acharya receiving Dhan Patras from the Tiruvellore Taluk Bhodan Committee.

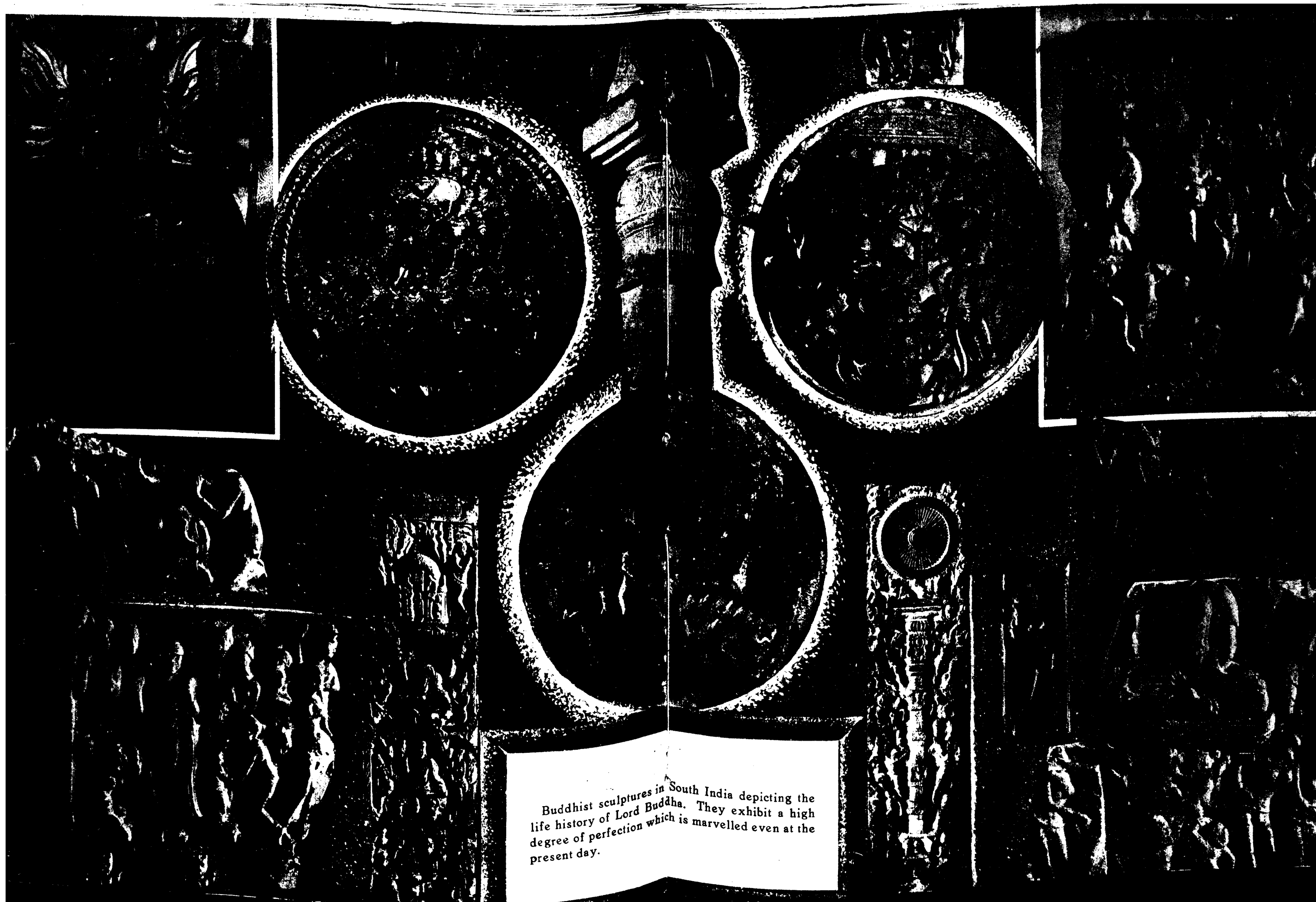


At the prayer meeting, Tiruvellore.

ACHARYA VINOBA ENTERS MADRAS



Addressing the prayer meeting, Veppampattu.



Buddhist sculptures in South India depicting the life history of Lord Buddha. They exhibit a high degree of perfection which is marvelled even at the present day.



Acharya Vinoba Bhave entered Madras State on his walking tour and was accorded a warm reception near Tiruvellore.

SAINT ON THE MARCH



Acharya Vinoba Bhave addressing a meeting.

Animal Husbandry in Madras State

Schemes under Second Five-Year Plan

DR. D. PATTABIRAMAN, Director of Animal Husbandry, Madras

India is predominantly an agricultural country and the cattle are the backbone of Indian agriculture. Though India possesses large number of cattle, their productivity for milk production and capacity for work are comparatively low. This is due to indiscriminate breeding and lack of breeding, feeding and management on scientific lines.

Madras State possesses 12.1 million cattle, 2.89 million buffaloes, 8.0 million sheep, 4.5 million goats and 10 million poultry. They are indirectly contributing to the tune of Rs. 110 crores annually by their work, production and manure which raises the rural economy in this State.

Animal Husbandry Department has been doing yeoman service to the rural public to raise the standard of the cattle, sheep and goats, and poultry for increased production of milk, meat and eggs and to raise the working capacity of the work animals.

There are five livestock farms in this State at Hosur (Salem district), Orathanad (Tanjore district), Koila (South Kanara district), Thiruvazhumkundu (Malabar district) and Pudukkottai (Tiruchirappalli district) with the main object of supplying approved and pedigree bulls of Sindhi, Kangayam, Gir, Umblachery and Murrah Buffalo breeds to the public for breeding purposes. The farm at Hosur is one of the premier farms in the State and breeding of Sindhi herd for production of purebred and pedigree bulls has been of a very high order in this farm when compared to the other farms in the whole of the Indian Union. Breeding of Kangayam herd both for milk and work is being done separately. Gir breed which is noted for its milk production was also introduced about five years ago in this farm and it is

progressing very well and a number of bulls have also been supplied to the public. It needs mention that the Sindhi breed, the home tract of which is Karachi, is available only in a few places in India and the demand for breeding bulls is so great that this State is receiving indents for supply of pedigree breeding bulls from States like Orissa, Bihar, etc. The other livestock farms at Orathanad, Koila, Thiruvazhumkundu, and Pudukkottai are of recent origin and they have already started distribution of pedigree bulls from the foundation stock supplied from Hosur Cattle Farm. These farms were opened as part of Post-war development schemes.

The Government have got about 1,405 bulls of different breeds under various schemes in the State. The premium scheme envisages the grant of Rs. 200 per annum to owners of approved bulls maintained under certain conditions stipulated by the department. The Government Free distribution scheme and the District Board contribution scheme aim at distribution of breeding bulls of distinct breeds suited to the locality to cattle owners who are interested in the improvement of livestock and who own large number of cattle. These bulls are purchased by Government and by District Board with Government grant respectively and distributed to selected custodians and after the maintenance of the bulls for a period of three years by the custodians under certain conditions, the ownership is vested with the custodians.

Apart from the sale of breeding bulls and bulls distributed under the above schemes, Madras State has introduced the technique of Artificial Insemination to meet the shortage of pedigree bulls. This Technique was

first started at the Madras Veterinary College during the year 1948. There were only two centres at Madras and Coimbatore at that time and now there are seven artificial insemination centres spread over in the State in important district headquarters. Though this technique was not appreciated in the beginning from a sentimental point of view, it has now gained momentum, especially in the breeding tract of Kangayam cattle in Coimbatore district and the demand for such centres has considerably increased throughout the State as a result of which about 13 more centres are to be started during the Second Five-Year Plan period. The advantages of having the animals artificially inseminated are as follows:—

- (1) There is no necessity to worry about the size of the breeding bull when compared to the size of the cows;
- (2) the semen from a bull can be utilised to impregnate at least 40 cows;
- (3) semen from different breeds of cattle can be easily made available to the cattle owners by quick transmission throughout the State.

Key Village Scheme

For effective livestock improvement throughout the Indian Union, the Government of India sponsored a scheme called "Key Village Scheme" by which livestock improvement is to be effected in a compact and contiguous area by castration of all scrub bulls with the enforcement of Madras Livestock Improvement Act, by having an Artificial Insemination centre in the main centre with a few sub-centres round about and by distribution of pedigree bulls in the area for natural service. These Key Village centres are mainly to be located in the breeding tract of distinct breeds so that the first generation of bull calves will be utilised

period and for want of proper facilities in the City and round about, some of them resorted to sale of valuable cows to slaughter-houses. To avoid such depletion of milch animals, a salvage farm is located in the Kambakkam Reserve forest area in Chingleput district. The object of this farm is to provide home for the dry cows of the Madras City during the dry period and to maintain them at this farm at a nominal cost of Rs. 10 per mensem and to return them after calving. Breeding bulls are also maintained at this farm for services of the cows admitted for salvage.

It has been estimated that the sheep and goats contribute about Rs. 1.75 crores worth annually by way of meat, wool, manure, and export of these animals. It is essential that the local non-descript sheep of both mutton and woolly variety should be developed to yield more wool, and meat by mating them with improved breeds of sheep like Bikanir, Nilgiri, and Coimbatore breed for more wool production and like Mandya and Karuvai breed for more meat production.

The livestock farm at Hosur is maintaining a flock of Mandya sheep and another flock of Bikanir sheep for production of pedigreed rams for distribution and sale to the public. But the necessity for the improvement of Nilgiri breed of sheep was keenly felt as the breed almost became extinct in spite of its quality for fine wool production. The available Nilgiri breed of sheep were purchased during 1950 and a sheep farm with 600 acres

The Madras City Milkmen were finding it very difficult to maintain their cows during the dry period and to avoid maintaining them unnecessarily without income during the dry

As regards goats, the district Livestock Farm, Thiruvazhunkunnu, is maintaining a flock of Malabar Goats which are noted for its milking qualities for production and supply of bucks. Apart from the Malabar variety of goats, no other breed has been introduced in this State.

Poultry farming has almost become a backyard industry as most of the villagers rear poultry in the backyard of their houses as poultry supplies eggs and meat which are essential in human diet as suppliers of animal protein. The demand for hatching eggs, chicken and adult birds of exotic breed has considerably increased in recent years. There are two large-scale nucleus poultry farms, one at Madras and the other at Hosur Cattle Farm each of them maintaining nearly 1,000 birds. In addition there are also District Poultry Farms at Cannanore and at the cattle farms at Koila and Orathanad. These farms are supplying improved varieties of birds and hatching eggs of mostly white Leghorn, Rhode Island Red, Black Minorca breeds.

There are 22 Poultry demonstration units attached to important Veterinary Institutions to serve as demonstration units for rearing of poultry, etc. These units are also supplying birds and eggs in and around the places where they are located.

There are also poultry production centres at Saliangalam (Tanjore)

In the foregoing paragraphs the details as to the livestock improvement work done in the State were furnished. It is a well known fact that there are certain contagious and non-contagious diseases among the cattle which are the impediment to livestock improvement work. Among the contagious diseases of cattle, the most dreadful disease is Rinderpest which was sweeping away cattle in large numbers in previous years. It is a matter of pride to this State, that, in having eradicated this disease throughout the State and in order to avert the possible ingress of infection of Rinderpest from the adjoining States, quarantine stations have

joining States, quarantine stations have been opened in the border areas under the All India Scheme for eradication of Rinderpest wherein all the animals entering the State are inoculated against Rinderpest, branded and allowed entry into this State. The rest of the common contagious diseases like Haemorrhagic Septicaemia, Black Quarters, Anthrax are controlled by vaccination of the cattle and by adopting preventive measures. In addition to the vaccination of cattle, sheep and poultry against all contagious diseases in the field by Veterinary Assistant Surgeons in charge of touring billets and minor Veterinary dispensaries treatment of non-contagious diseases is being done in Veterinary Institutions located almost in every taluk headquarters of the district throughout the State. Now there are 104 Veterinary Institutions in the State which render Veterinary aid to the cattle owning public. In some of the major Veterinary Institutions, the Veterinary Assistant Surgeon is assisted by a Veterinary and Livestock Inspector or a compounder in the treatment of cases, etc. These Veterinary and Livestock Inspectors who assist the Veterinary Assistant Surgeons are also attending Veterinary first aid centres periodically, say, thrice a week located in and around the Veterinary Institutions within a radius of about 10 to 15 miles. 13 clinical laboratories in the district headquarters Veterinary Institutions and livestock farms for the early diagnosis and confirmation in the control of epidemics are functioning in this State under

The various biological products required to combat contagious diseases like Rinderpest, Black Quarters, Haemorrhagic Septicaemia, Anthrax, etc. among cattle, Ranikhet disease, Fowl pox, etc., among sheep pox, etc., among sheep are produced at the Institute of Veterinary Preventive Medicine, Ranipet. These vaccines are produced under experts trained in the manufacture of biological products both in this country and abroad and the efficacy of these vaccines is well appreciated in the field. Besides this, there is a well equipped and up-to-date laboratory at the Institute for microscopical examination and diagnostic purposes.

purposes. The trained personnel required for the department to work out the various schemes and to be in charge of various institutions are produced at the Madras Veterinary College, Madras. Since the inception of the College in 1903, there was only a diploma course of three years and this has, by gradual improvement and expansion, now been affiliated with the Madras University with the B.V.Sc. Degree course which runs to four years and one term. The degree holders are well trained in the different branches of Veterinary and Animal Husbandry subjects. The redeeming feature of this College is that it trains students not only from this State but also from other States like Andhra, Mysore, etc. Periodically students from countries like Iran and Iraq, China and Burma are also entertained for training. The Veterinary and Livestock Inspectors' Course which was started during 1948 was intended to give training in the broad principles of Veterinary Science and Animal Husbandry for a period of two years so that the Veterinary aid can be rendered in rural areas through a cheaper agency. To meet the increased demand for technical personnel and to train persons in still more short a time, the above course was abolished during June 1954 and the Stockmen course was started in 1954-55. This is intended to give the candidates training in the elementary knowledge in the subjects related to Veterinary science with special emphasis on animal

husbandry. The number of seats to this course is confined to 55 for the present. In addition to the above course, a flaying course is conducted to train professional as well as amateurs in the art of flaying as at present the skin value is lost by unscientific and crude method of flaying.

In the rural uplift of community development programmes Animal Husbandry plays an important part. In fact the rural developmental work connected with Animal Husbandry is not new to the Veterinarians. The major portion of the work had always been done in the rural parts in the past and this department continues to do so even now. Everybody is aware of the fact that both Agriculture and Animal Husbandry are clubbed together and no Agriculturist can prosper, unless his cattle prospers. The duty of the Animal Husbandry department in the Community Development programme is to improve the quality of cattle both for milk and draught purposes in the development areas and to provide Veterinary aid within the easy reach of the Agriculturist.

The Livestock improvement work in the Community Development areas has received much attention. The work is concentrated on grading of village cattle, poultry and sheep. Artificial insemination centres, poultry units and centres for sheep and goat rearing are in progress in the community Development Projects and blocks. The village livestock improvement scheme for grading up the local cattle is in operation in Five National Extension Service blocks of this State.

The details of work done in the various community development blocks which number 83 so far are given below :—

1. Breeding and artificial insemination centres started	90
2. Bulls castrated	55,056
3. Pedigree bulls supplied.	458
4. Pedigree birds supplied.	7,368
5. Cattle inoculated and vaccinated	853,584
6. Cattle treated	281,463
7. Poultry units started ..	125
8. Breeding bulls at stud.	336
9. First aid centres working.	58
10. Veterinary Institutions run	19

According to the plan, the entire State will be covered by the National Extension Service block before the end of the Second Five-Year Plan. It is hoped that at the end of the Second Plan period, with the implementation of the schemes successfully, perceptible improvement in the development of livestock can be achieved.

Schemes under Second Five-Year Plan

Taking into consideration the demand for Veterinary aid, livestock development work, etc., in the State, the Second Five-Year Plan programmes have been drawn for this department. In addition to the achievements already made as indicated above, it is hoped that the implementation of the various schemes under the Second Plan which are given below will not only improve the standard of the livestock in the State but also raise the rural economy of the State :—

I. Livestock Improvement and Development :

1. All India Key Village scheme for cattle development.
2. Establishment of Artificial Insemination centres in towns of Madras State.
3. Scheme for the development of feeds and fodder resources in key villages.
4. Organisation of rural herd and milk recording for rural dairy cattle development.
5. Establishment of 42 supplementary extension centres for the utilization of bulls produced in key villages of the State.
6. All India Key Village scheme for cattle improvement—Calf Subsidy Goscheme.
7. Development of four shalas.
8. Special scheme for the development of Goshalas in the State.
9. All India and Regional cattle shows—State shows and district shows.
10. Improvement to the existing livestock farms—Mixed farming at the Livestock Research Station, Hosur.
11. Improvements to the existing Livestock Farms and soil conservation in livestock farms.

12. Improvements to the existing livestock farms—Soil conservation in livestock farms situated in hilly regions.

13. Buildings and Roads—Construction of residential quarters for officers, electrification of the premises and metalling roads in certain livestock farms.

14. Improvements to the District Livestock Farm, Orathanad.

15. Establishment of a cattle farm in Ramanathapuram district.

16. Scheme for the distribution of breeding bulls in the rural areas of the State.

17. Opening of a sheep farm in Chingleput district.

18. Poultry improvement in key Village areas.

19. Poultry development—Establishment of poultry units in National Extension Service Blocks.

20. Subsidy to private poultry breeders and associations.

II. Control of livestock diseases :

1. Control of cattle diseases.
2. Increased production of Rinderpest Freeze Dried vaccine at the Institute of Veterinary Preventive Medicine, Ranipet.
3. Opening of new Veterinary Institutions.
4. Purchase of microscopes.
5. Acquisition of lands and provision of Government buildings for Veterinary Institutions.
6. Provision of quarters for staff in Veterinary Hospitals and dispensaries located in permanent buildings where quarters have not been provided.
7. Electrification of Veterinary Institutions.
8. Appointment of additional stockman in the Animal Husbandry department.

III. Education and Research:

1. Emergency short course in Veterinary training and hostels in farms.
2. Increased admissions to the B.V.Sc. course.

3. Increased admissions to the Stockmen course.

4. Strengthening the departments of Animal Nutrition and Animal Genetics in the Madras Veterinary College.

5. Creation of a chair in Therapeutics and Toxicology in the Madras Veterinary College.

6. Creation of a chair for Gynaecology in the Madras Veterinary College.

7. Additional buildings to the Madras Veterinary College.

8. Establishment of a livestock research station at the Institute of Preventive Medicine, Ranipet.

IV. Dairying and Milk Supply :

1. Cattle Colonisation scheme.
2. Installation of new Plant for manufacture of toned milk at Government Milk Factory, Madras.

(Continued from page 13)

remains to be achieved to equalize with that provided by the advanced nations in their countries. It will require a great effort on the part of our country to catch up with the other advanced nations and with given determination this can be achieved.

The modern trend of opinion is overwhelmingly in favour of giving more importance to prevention over curative medicine and envisages the evolution of a doctor trained in Public Health and the curative art to look after the medical needs and public health problems of the rural areas in an efficient manner. In consonance with this a start has already been made by integrating preventive and curative medicine at the village level by opening Primary Health Centres which combine and from which will radiate all activities of the medical and public health departments in the village. It is hoped that this integration will be the precursor of further integration and close co-ordination at higher and higher levels till both the departments fuse themselves into one composite whole.

—By Courtesy A.I.R., Madras.

The Five-Year Plan and Rural Industrialisation

Development of Cottage Industries in Madras State

It has been rightly said by the genius Sir M. Viswesvarayya that prosperity of a country depends on its industry. This statement of one of the leading industrial architects of Mysore is wholly testified by the wealth of the industrially advanced countries like America, United Kingdom, France, Japan, Russia and Germany. It is no exaggeration to say that America and Russia are trying to shape the destiny of the whole world. This is mainly due to the industrial advancement they were able to make in the last two decades. So no country can claim for its legitimate place in the world unless it has developed the industrial potentialities of the country according to a planned programme.

India had lost its glory and eminence on account of her political subjugation under the yoke of foreign rule for the last two hundred years. The foreigners had killed all the indigenous industry in the country during the regime of two hundred years and had made it, predominantly an agricultural country. The teeming millions of our country are now depending on lands and are steeped in poverty and ignorance.

The country owes a deep debt of gratitude to the Father of the Nation, Mahatmaji, whose political sagacity and strenuous struggle opened the eyes of the British who had ultimately conceded to the demand of the country and declared Independence to India on August 15, 1947. Ever since independence every effort is being made to make India strong industrially, economically and politically.

In the Union of India, Madras State is industrially very backward. With a view to make India strong the Government have drawn up first Five-Year Plan to develop the country in every field. In the programme of development planned by the Planning

Commission, development of industries has been planned on the following line :—

- (1) Large Scale Industry.
- (2) Medium or Small Scale Industry.
- (3) Village and Cottage Industry.
- (4) Handicrafts.
- (5) Silk Industry.
- (6) Coir and Fibre Industry.

To develop each branch of industry detailed above there are appropriate Boards. The All-India Khadi and Village Industries Board and the Handicrafts Board have taken up the responsibility of developing Village and Cottage Industries of the country through the agency of the several State Governments.

Under the First Five-Year Plan the Government of Madras have sanctioned the following schemes for the development of Cottage and Village Industries :—

1. Village Industries.

- 1 Blacksmithy unit at Karattupalayam (Lower Bhavani Project).
- 2 Wardha Ghani unit at Sivagiri.
- 3 Thirty Wardha Ghani units in Community Projects and National Extension Service areas.
- 4 Distribution of Beehives in Tellicherry block at subsidised rates.
- 5 Distribution of beehives at Usilampatti block at subsidised rates.
- 6 Establishment of workshop at Kalupatti for smithy, carpentry, housing design, etc.



State Khadi Board meeting at Kancheepuram—Sri G. Venkatachalapathi, Joint Development Commissioner, is seen explaining the progress of Khadi Development in the State.

MADRAS INFORMATION

22

- 7 Blacksmithy-cum-welding centre at Buntwal, South Kanara.
- 8 Scheme for opening a service centre for clay pipe manufacturers in Andimadam.
- 9 Manufacture of cart wheel hubs in Periyar Project.
- 10 Manufacture of Chappals in Periyar Project.
- 11 Manufacture of Chappals in Lower Bhavani Project.
- 12 Manufacture of Chappals in South Kanara Project.
- 13 Manufacture of Appalams in Cheranmahadevi, Chidambaram, Attur (Madurai) and Tirukali-kundram.
- 14 Community Smithy shop in Attur Block.
- 15 Cartwheel hub manufacturing centre in Malampuzha Project.
- 16 Two carpentry units one at Hebri and another at Sullia, South Kanara district.
- 17 Blacksmithy centre at Sullia.
- 18 Gun-metal industry at Kurumbapatti, Periyar Project.
- 19 Establishment of Demonstration centre for handpounding of rice in Tirunelveli district.
- 20 Establishment of a production centre for manufacture of Appalams in Madras.
- 21 Establishment of a training-cum-production centre for pottery at Manamadurai.
- 22 Establishment of a training-cum-production centre for pottery at Alankar.
- 23 Establishment of a training-cum-production centre for pottery at Aravacode.
- 24 Scheme for training of Kudiya youths in Kerala Polytechnic and tribal youths at Karnataka Polytechnic.
- 25 Scheme for establishment of Demonstration Centres for manufacture of Gur and Khandsari sugar.

2. Handicrafts.

- 1 Scheme for manufacture of fancy articles from fine kora-mats at Pattamadai in Cheranmahadevi Block.
- 2 Scheme for manufacture of paper toys in Pulivalam village.
- 3 Scheme for starting of two training centres to develop skill for bamboo workers in Lower Bhavani Project area.
- 4 Scheme for the development of Cumbly weaving in Attur Block.

- 5 Scheme for starting a Glass bangle and Bead training centre in Chidambaram Block.
- 6 Scheme for starting a training centre for the manufacture of bamboo and cane articles in Mudradi.
- 7 Scheme for setting up of a demonstration unit for sunnhemp fibre cleaning and spinning in Gopalamudram.
- 8 Scheme for the establishment of a service centre for the cutlery industry in Malampuzha Project.
- 9 Scheme for opening of a training centre for basket making in Manjeshwar Block.
- 10 Scheme for organizing Palmyra fibre extraction industry in the Lower Bhavani Project Area.
- 11 Scheme for setting up of a production unit for the manufacture of bamboo articles required for daily household purposes at Chinnasalem.
- 12 Scheme for starting a training centre for the manufacture of pith articles at Tiruthuraipoondi.
- 13 Scheme for establishment of a centre for development of pottery at Karigiri.
- 14 Scheme for research on glazed pottery in the Ceramic School Laboratory and Kiln, Gudur.
- 15 Establishment of a Handicrafts Emporium, Madurai.
- 16 Establishment of a wood seasoning plant at West Coast.

3. Coir.

- 1 Coir demonstration in the Laccadive group of islands.
- 2 Training of island boys in the Government Coir School, Bepore.
- 3 Supply of Charkas to the Islanders of the Laccadive and Amindivi groups of islands.
- 4 Coir Demonstration in the South Kanara district.
- 5 Training-cum-production centre in coir at Sadras in the Tirukali-kundram Block.

The object of these schemes is to improve the existing skill of the artisans in the country, improve technique by introducing improved tools and equipments and to make quality goods of manifold utility. Some of these schemes have been implemented in the course of 1955-56 and the others will commence working in the course of the next three months. The aim of the Government is to

establish the units sanctioned in the schemes detailed above after the period of training as permanent production centres by converting them into industrial co-operatives managed by the artisans trained and other sympathisers. To solve the problem of marketing under the Second Five-Year Plan period which is to commence from 1956-57 the Government sanctioned marketing organizations in the headquarters of each district to render effective assistance in marketing the surplus products that do not find ready market at the place of production. Besides this there are Sales Emporia to be established in each district to display Cottage and Village Industry products calculated to get wide publicity and marketing facilities. There is no doubt that the development of Cottage and Village Industries is bound to reach the target of the plan period and solve the problems of unemployment and under-employment to a great extent.

Under Second Five-Year Plan period the Government of Madras have proposed the following schemes for the production of Village and Cottage industries. These schemes have been approved by the Union Government and the estimated expenditure on these schemes for the five-year period is Rs. 426.39 lakhs.

List of schemes proposed for 1956-57: Village Industries.

- 1 Scheme for providing financial assistance to cottage industrialists.
- 2 Scheme for supply of improved tools and appliances on hire-purchase system to village artisans.
- 3 Scheme for supply of raw materials to village artisans and workers engaged in cottage industries at cost price.
- 4 Scheme for assisting village artisans and others engaged in cottage industries by free assignment of lands and grants to convert part of their houses into workshops.
- 5 Establishment of a marketing organization for sale of cottage industries products.
- 6 Scheme for conducting experiments on Japanese and other types of Cottage Industries machinery.
- 7 Establishment of a production-cum-training centre for manufacture of Amber Charkas, Bee-hive boxes, chekkus, etc.

(Continued on page 23)

Rural Credit through Co-operative Structure

The problem of rural credit is a vast one observed the Registrar of Co-operative Societies, Madras, speaking recently at the Rotary Club. Continuing he said: It is an old problem; but none-the-less an urgent problem especially in the present context of increased agricultural production and improvement in the standard of living of the people. More than 80 per cent of the rural population is dependent on agriculture and possibly the remaining 20 per cent on rural industries. India is a Rural country and the population here is increasing by 4.5 millions every year. To meet the growing needs, agricultural production has also to be stepped up and in the Second Five-Year Plan period it is expected that the production would be increased by about 20 per cent. For this purpose, a dynamic programme of expansion of agricultural credit is necessary particularly as more than 70 per cent of the agriculturists are medium and small scale cultivators. It has been estimated that about 70 crores of rupees are required by the cultivators by way of loans for short, medium and long-term purposes. Loans are required for cultivation, for improvement to lands, for buying fertilisers and also for sustenance until the harvest. Though several measures have been taken in the past, village money-lenders still hold the field. The problem of rural credit is therefore one of supplying credit through institutions which, in the act of supplying will elevate the position of the farmer. The problem is not merely one of giving credit at a low rate of interest or to the extent needed, but is one where the farmer is enabled to use the credit properly and to derive the benefit of increased production and to take advantage of the other economic activities which will give him more return for the produce he raises and make him a better man than what he is to-day.

The Rural Credit Survey Committee has emphasised that co-operation must succeed and made several recommendations of great significance. One major recommendation is that the State

should not merely administer but enter as a partner in the co-operative organizations at various levels and participate in the management of co-operative organizations. In Madras we have got a strong co-operative financing structure. The short term financing structure consists of the Madras State Co-operative Bank, the Central Co-operative Banks and the agricultural operative Banks in the districts. The long term structure consists of the Central term structure consists of the Central Co-operative Land Mortgage Bank and the primary land mortgage banks. The Central Co-operative Land Mortgage Bank raises funds by floating debentures and finances the primary banks for the grant of loans to their members for improvement to lands and discharge of prior debts. In this way loans are issued to the extent of about Rs. 5 crores every year. Under the Second Five-Year Plan it is proposed to provide three times the volume of credit and to give during the last year of the plan period fifteen crores of rupees.

Another important recommendation is the establishment of large sized societies, familiarly known in Madras as agricultural banks. The present rural credit societies are small with limited transactions on unlimited liability basis. They have no paid staff. The idea is to form bigger societies with about 500 to 600 members and with transactions ranging from Rs. 2 to Rs. 3 lakhs and with paid staff so that they can serve the needs of the agriculturists more efficiently than at present.

The other important recommendation of the Rural Credit Survey Committee is that the main approach to the problem should be an integrated one. If the ryot is to reap the full benefit of his labour he should have facilities for marketing and processing. The marketing society will also arrange for processing wherever possible. To provide storage facilities, nearly 400 godowns are proposed to be constructed at a cost of 70 lakhs of rupees. The State will take shares in the marketing societies also and provide funds to the societies for the construction of godowns

and the installation of processing plants. The godowns will be constructed in villages and at taluk levels. The All-India Warehousing Corporation and the State Warehousing Corporation will construct godowns in bigger towns and other important centres, while the co-operatives will confine their attention to the construction of godowns at the village and taluk levels. Co-ordination between these organizations will be brought about later. These measures are bound to bring about a decided improvement in the economic condition of the agricultural population of the country.

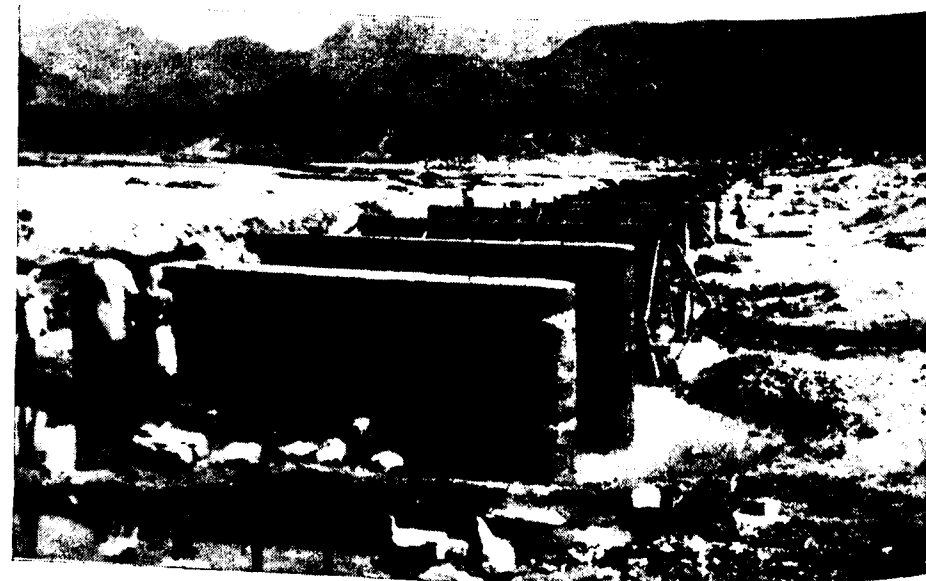
(Continued from page 22)

- 8 Development of handpounding of rice as a cottage industry by establishment of a production centre and District Organization centre.
- 9 Development of village oil pressing.
- 10 Development of Village Tanning allied industries.
- 11 Establishment of multi-purpose work centre.
- 12 Development of Village pottery.
- 13 Development of ginning of cotton.
- 14 Development of decorticating of groundnuts as a cottage industry.
- 15 Establishment of twenty cottage type match factories.
- 16 Demonstration-cum-training centre for extraction of cashewnut oil and manufacture of syrup, jam, etc.
- 17 Establishment of a training centre for manufacture of ornamental handles for almirahs, doors, etc.
- 18 Establishment of a demonstration centre for manufacture of Gur and Khandsari sugar.
- 19 Development of Bee keeping by establishment of research farm at Kodaikanal Nurseries in all districts and distribution of boxes in 60 blocks.

With the completion of the Second Five-Year Plan period it is expected that the Cottage and Village industries will regain its past glory and contribute its share in building up the industrial wealth of this State.

All Roads lead to Prosperity

Quite a big transformation has been achieved in the development areas in Palghat in regard to rural communications according to a report received from the Project Executive Officer. It is reported that there is not a single village now which is cut off from the main roads for want of village link roads or bridges across rivers or streams. This has been largely made possible by the whole-hearted co-operation of the villagers who had readily come forward either in surrendering their lands necessary for the formation of roads or paying the required contributions. The importance of this development cannot be overestimated. According to a close student of rural economics, the most important needs of the village today are (1) drinking water wells and (2) village roads. These two, according to him, should require the highest priority. We are here concerned only with the latter, namely, roads. The development of village communication is one of the most important items in the field of rural reconstruction. It is a common place fact that civilisation

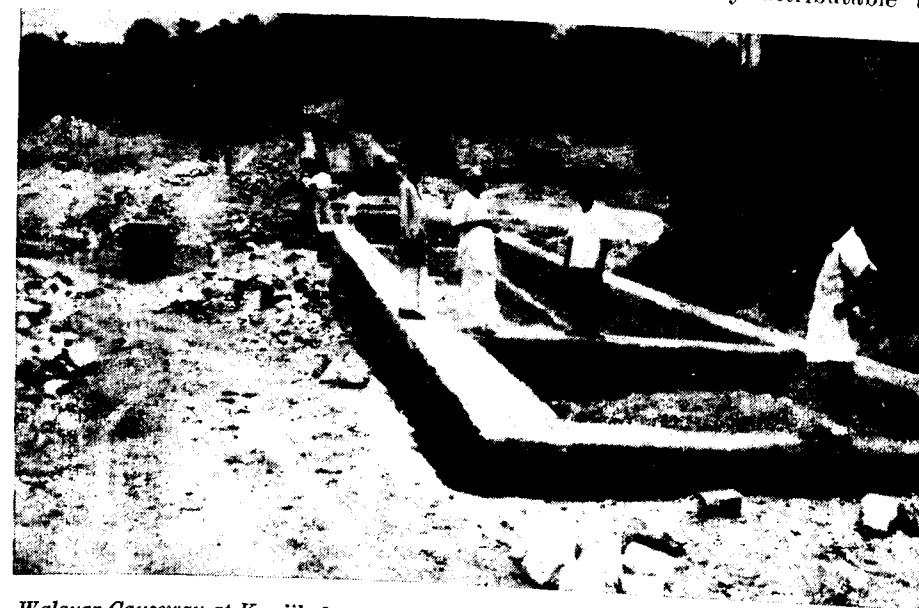


Mukkey Causeway.—Estimate Rs. 95,500. This is on the road connecting Palghat Town with Kadukkankunnam, Malampuzha and other hilly places beyond. This reduces the distance by 3 miles.

follows roads. The isolation of the Indian village which has been largely responsible for its economic and social stagnation is mainly attributable to

the lack of communications with the outside world. It has been said that the minimum requirement of road mileage in a country is one mile to a square mile. According to the statistics taken some years ago, the minimum obtaining in India at the present day is 18 mile per square mile at round about. So, our country obviously has to make a big headway in reaching the minimum and from this point of view, rural road development is a matter of utmost significance.

Now, a few facts about the improvements in Palghat may be told. Katcha roads for a length of 209 miles have been formed by the people surrendering valuable lands as free gift and by putting in voluntary labour. Also, a total length of about 103 miles of roads have been metalled with 50 per cent contribution from the people. A number of major bridges and causeways and other works have been undertaken in the community project areas. These include not less than 24 bridges and causeways, 17 minor bridges and 5



Walayar Causeway at Kanjikode.—Estimate Rs. 38,000. This is across Walayar River and on Kanjikode para road—connects Kanjikode with Elappully and Chittur.

Progress of National Highway Programme



Bridge across Kannanorekadavu Thodu.—Estimate Rs. 43,000. This is on the road connecting Alathur with Kollengode.

The total cost of the National Highway programme for Madras State under the Second Plan, it is expected, would be about Rs. 4 crores, including schemes carried over from the First Plan. In financial terms, the total estimated cost of works sanctioned on National Highways in Madras during the First Plan was Rs. 2.66 crores, of which a sum of Rs. 1.34 crores is understood to have been spent by the end of that period.

In respect of road development under the First Plan, the record of Madras was praiseworthy. Among the new schemes proposed were the reconstruction of the Gadilam bridge on the Madras-Thiruchirappalli-Dindigul road and the construction of a road bridge across the Pampan channel.

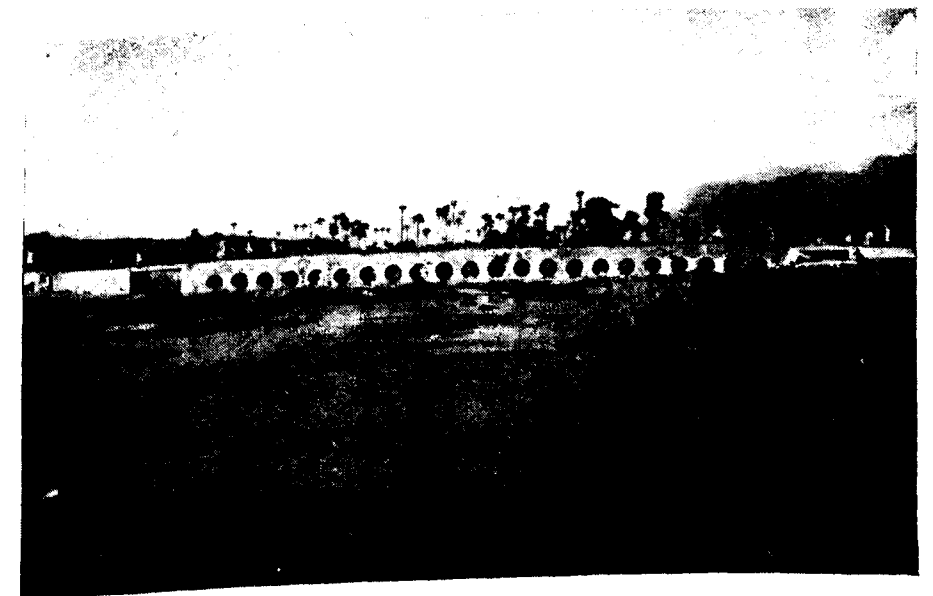
The entire National Highways system had been asphalted and a new road from Ramanathapuram to Mandapam, 23 miles long, had been built under particularly bad soil conditions. Further, the carriageway had been widened to make it suitable for two-lane traffic in a total length of

Under the Central Aid programme for the development of inter-State roads or roads of economic importance, 64 miles of existing roads in the State of Madras had been improved in the First Plan period.

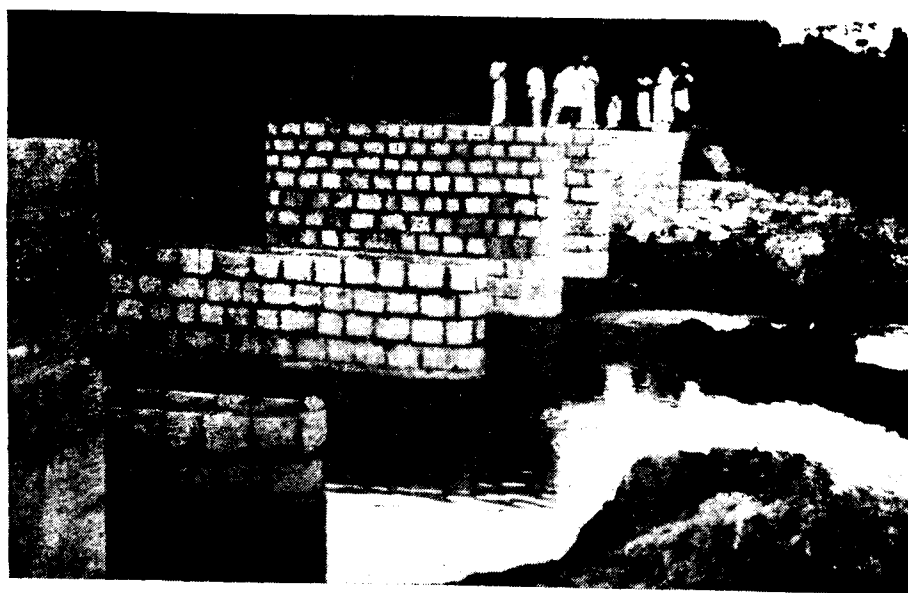
At the end of the First Plan period, work was in progress, or was about to start, on the construction of bridges in the National Highways system across the Ponnaiyar, south of Villupuram, on the Madras-Trichy-Dindugul road; the Palar, near Ranipet, on the Ranipet-Krishnagiri road; and the Arjuna, Vaippar and Vaigai rivers on the Banaras-Cape Comorin road.

On the West Coast road, construction of bridges over the Nileswar, Perumbai, Puchumugar, Kariangode, Kuppan, and Kubja rivers and the improvement of about 200 miles of existing roads were in progress. Under the Central Aid scheme for roads of inter-State or economic importance, Government of India had sanctioned the construction of bridges, across the Pavanji, Mulki, and Udayavar rivers on the Mangalore-Udupi road and the Kannamangalam and Ponnai rivers on the Cuddalore-Chittoor road.

about 75 miles. On the West Coast road, about 8 miles of missing links had been constructed and about 25 miles of existing roads improved.



Chramangalam Causeway.—Estimate Rs. 36,600. This is on the newly formed 4½-mile length road connecting Kunisseri with Nemmara and reduces the distance by 5 miles.



Bridge across Kannanorepattola Thodu.—Estimate Rs. 23,700. This is on the newly formed 3-mile road connecting Pudukkote and Kannanorepattola (under construction).



Menonpara Causeway.—Estimate Rs. 34,500. This is on the newly formed 4½-mile length road connecting Elappulli with Menonpara and reduces the distance by 6 miles.

Work is also in progress on the construction of about 56 miles of new roads and the improvement of about 70 miles of existing roads under the same programme.

Among the other bridges built or strengthened in National Highways in Madras were the Noyyal bridge on the Salem-Cochin-Cape Comorin road and the Kodavanar and Kaveripatnam bridges on the Banaras-Cape Comorin road. On the West Coast road, the construction of a bridge across the Payaswami had been completed.

Facts and Figures

Oil reserves in Assam, which are being worked by the Assam Oil Company, are estimated at 18 million tons.

The output of iron-ore in India increased to 399,651 tons in March 1956 from 377,591 tons in the previous month.

The Integral Coach Factory at Perambur during the first year of its production ending October 1956, is expected to turn out twice its target of passenger coaches fixed for the year.

Rural Uplift in Nilgiris

In a report sent by the Block Development Officer, Ootacamund, he has furnished statistics of the progress made in his area during April 1956. These may be rapidly told. Fifty-five compost pits were dug during the month. One thousand seven hundred and ten pound of paddy seeds were distributed; also 200 lb. of ragi and 224 lb. of ammonium sulphate. Three demonstration plots were laid and 17 acres have been brought under vegetable cultivation. Five hundred and three fruit trees were planted while the other trees planted numbered 4,000. Cattle welfare also received attention. Four hundred and twenty-one cases were treated during the month. Propaganda was done about the usefulness of guinea grass. In the field of public health, sanitation campaigns were conducted during the month. Propaganda about the B.C.G. was also done. A road measuring 6 furlongs was laid out during the month. Three adult schools were organised, also 3 branch libraries. Two cottage industrial societies were formed. Four spinning classes were conducted. Loans to the tune of more than Rs. 12,000 were also disbursed.

Urban Family Welfare Project in Hyderabad

One hundred and eighty-two women workers belonging to low-income groups of families are employed in the factory and 117 women are given work at their homes in the match factory started under the Urban Family Welfare Scheme of the Central Social Welfare Board at Hyderabad. The factory is run under the auspices of the Asifnagar Family Welfare Co-operative Industrial Society, Ltd.

The Hyderabad factory started commercial production in December 1955 and the manufacture of match boxes during the period rose from 3,113 gross per month in January 1956 to 4,906 gross in the month of April 1956.

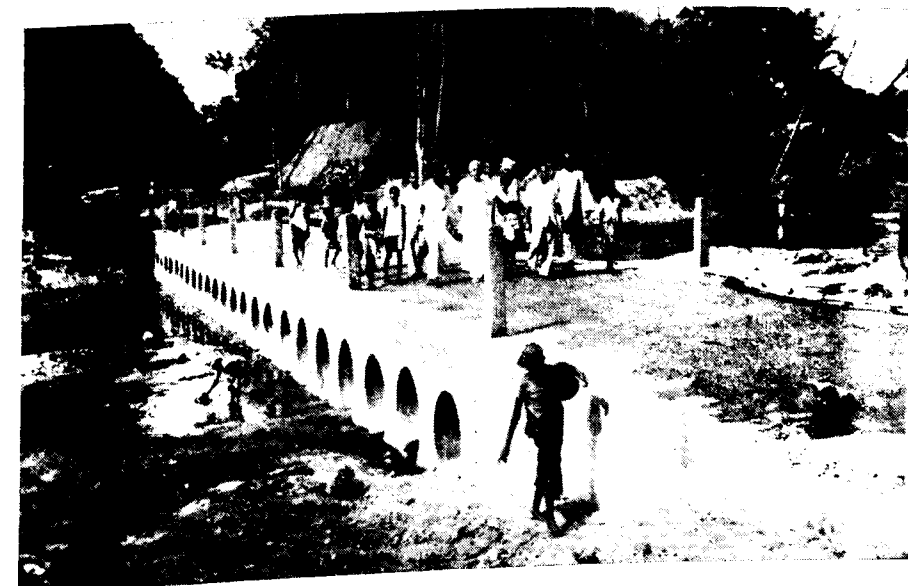
The Hyderabad match factory is the second project under the Urban Family Welfare Scheme to go into production, the first being the match factory started in New Delhi under the auspices of the Family Welfare Co-operative Industrial Society, Ltd.

Public Health Board

The Madras Public Health Board met in the Collector's Court Hall at Ootacamund on the 24th May 1956 at 3 p.m. The Minister for Health presided. A number of subjects of public health interest were discussed.

The Board again met on the 25th May 1956. Opportunity was taken to invite all the members of the Madras Legislature who were at Ootacamund at the time to attend the meeting. Dr. C. Gopalan, M.D., P.H.D., Deputy Director of the Nutrition Research Laboratory at Coonoor, attended by special invitation, and gave a talk on two important aspects of nutritional deficiency in our State. He first mentioned the large extent to which protein malnutrition exists among children in our State. He described how symptoms of such protein malnutrition develop soon after the baby is weaned from breast feeding. He also described some experiments that have been conducted at the Nutrition Laboratories in Coonoor, with a view to supplying this sudden lack of proteins in the children after the weaning period. He said that skimmed milk powder is not made in India and is costly. So, he described a substitute protein food made at his laboratory, using roasted Bengalgram powder, a little of skimmed milk powder and jaggery, made in the shape of a small bolus, which can easily be swallowed by children. It has been found from trial on more than 100 patients, that this is almost as good as skim milk powder in preventing the symptoms of protein malnutrition and costs only about quarter as much. Dr. Gopalan further stated that it is proposed to conduct a larger pilot experiment with this protein substitute in Poonamallee and Madura areas with funds placed at their disposal by the W.H.O.

Dr. Gopalan next described the great extent to which symptoms of Vitamin 'A' deficiency are prevalent among children in the Madras State, and how Vitamin 'A' deficiency is one of the chief causes of preventable blindness among children. He stated that green leafy vegetables are a cheap source of Vitamin 'A' and suggested that special efforts should be made by the Administration to popularise the use of green leafy vegetables.



Alampallam Causeway.—Estimate Rs. 49,000. This is across Gayathri River connecting Vadavannur and Alampallam with Kollengode.



Parli Causeway.—Estimate Rs. 76,000. This is across Kannadi River and on Parli-Kottay road. This is an important link connecting Alathur with Kanhikulam and effecting a saving of 14 miles.

Dr. Gopalan also demonstrated a number of interesting cases showing signs of protein and Vitamin 'A' deficiency, and also some cases showing results of appropriate treatment.

The Public Health Board also discussed the need to popularise the use of hand-pounded or parboiled rice, and suggested that more measures must be taken to educate the public on this subject. A demonstration of some of the different methods of hand-pounding has also been arranged.

Health Centre in Tellicherry

A primary health centre (hospital) has been started at Pinerayi in N.E.S. Block, Tellicherry, since 10th May 1956 and has begun to function. The Primary Health Centre Committee is making arrangements to start the construction of the buildings. Fifty per cent of the cost of the building will be met from the N.E.S. fund. The cost of the building will come to Rs. 50,000. This is the first primary health centre started in the N.E.S. area in Malabar.

Railways in India and Abroad—A Comparative study

SRI L. A. NATESAN, Economic Adviser, Ministry of Railways.

The Indian Railway system is the largest in Asia and the fourth largest in the world. It is also the world's second largest nationalised railway undertaking. Despite this leading position, India has much leeway to make up. What is the route mileage per 1,000 square miles and per 100,000 of population in India? How do travelling habits in India compare with those in foreign countries? Answers to this and other similar questions are provided in this article.

With a total route mileage of 34,705, the Indian Railways from the largest rail transport undertaking in Asia, and the fourth largest railway system in the world.

With only some 550 miles of narrow gauge lines worked by private companies, the system owned and operated directly by Government is the second largest among the nationalised railways in the world, the first being the U.S.S.R. Railways. Among the railway systems in Asia, the Indian Railways are also the largest, the Chinese and Japanese Railways following as the second and third in point of the route mileage.

The following table brings out a comparison of the railway system of India with certain other foreign railways :—

Route mileage of Indian and some Foreign Railways.

India	34,705
Japan	12,456
China (approximate) ..	19,000
Burma	1,787
Pakistan	7,082
U.K.	19,151
Canada	41,158
U.S.A.	224,816
South Africa (1953-54) ..	13,413
France	25,600
Australia (1953-54) ..	26,633

The comparatively leading position occupied by the Indian Railways should not obscure the fact that considering

the area of the country and its population, the extent of railway development is low.

Low Railway Development

A glance at the railway map of the world suffices to indicate the extent of rail transport in the country and of the scope for further development in this regard. This is brought out even more clearly by a comparison with some of the advanced countries of the world. Expressed in relation to the area of the country, India has only 27 route miles per 1,000 square miles, as compared with 74 in U.S.A., 204 in the United Kingdom, 12 in Canada, 120 in France and 87 in Japan.

Yet another measure of judging the adequacy of the transport system is to express it in relation to the population of the country. The route mileage in India is only 9 per 100,000 of population while the corresponding figures are 138 for U.S.A., 37 for U.K., 272 for Canada, 60 for France and 14 for Japan.

In making a comparison of this kind allowance should, however, be made for the variations in the density of population from country to country, the vastness of the territory served and the extent of industrialization, the availability of alternative means of transport, etc.

High Passenger Usage

Considering the low ratio of mileage, the transportation work done by the

	Passengers carried.	Passenger miles.	Tons carried.	Ton miles.
India	1,300,224	38,649,312	115,117	27,018,637
U.K.	991,193	20,712,000	283,498	22,089,487
Canada	27,388	2,753,951	133,544	56,550,048
U.S.A.	439,356	29,286,008	2,297,996	549,258,800
France	500,300	16,509,801	166,528	25,404,036
Japan	3,546,995	51,919,012	147,152	24,717,872
South Africa	275,039	Not available.	62,445	15,234,600

Indian Railways, as measured by the passengers carried, passenger miles, freight tons moved and freight ton miles effected, does not, however, suffer by a comparison with the railways of other countries, as may be seen from the figures for 1954-55 presented in the following table.

An examination of the figures in the table would show that the only railway to record a higher figure under passenger traffic is the Japanese National Railway. The lower figures of U.S.A. and Canada are to be ascribed to the fact that the automobile accounts for the bulk of the passenger transportation in these countries.

The position in respect of freight transportation is somewhat different. The low figures of the tonnage carried on the Indian Railways as compared with the other railways, except those in South Africa, is indicative of the lag in the industrial development of the country.

Per Capita Rail Transport

The extent of improvement that one may look for in rail transport, both passenger and freight, in this country in the future may be indicated by a comparison with the statistics of certain other countries of the world.

From the figures summarised in the table on the next page, it would be seen that the rail journey per inhabitant

	Passengers carried.	Passenger miles.	Tons carried.	Ton miles.
(In thousands).				
India	1,300,224	38,649,312	115,117	27,018,637
U.K.	991,193	20,712,000	283,498	22,089,487
Canada	27,388	2,753,951	133,544	56,550,048
U.S.A.	439,356	29,286,008	2,297,996	549,258,800
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Japan	3,546,995	51,919,012	147,152	24,717,872
South Africa	275,039	Not available.	62,445	15,234,600

miles, tons and ton miles may be expressed as averages per employee.

The output per employee of rail transportation thus expressed for Indian Railways and for certain foreign railways for 1954-55 may be seen in the table on the next page. The averages show that with the exception of Japan, the output per worker, as measured by the number of passengers carried per employee and passenger miles per employee on the Indian Railways, compares quite favourably with the ratios of the foreign railways. The same claim cannot be made in respect of goods traffic and the position here is that the Indian figure is the lowest of all the countries both in respect of the average tonnage and ton miles.

Lowest Capital Investment Ratio

It should, however, be noted here that the productivity of a worker is also determined by the extent of capital equipment provided to aid him in his work. This is generally brought out by the average investment made in an industry per employee. The more elaborate and technically more efficient the tool, the greater the efficiency of the worker and his production per man-hour.

The ratio of capital investment affords an important clue to the index of productivity of labour and of the standard of the technique in the industry. Disparities in the employee averages of capital investment may be seen from the following table for 1954-55. It should be added that these figures are likely to be affected by past financial policies, over-capitalization, reorganization, writing-off of dead investment, etc., so that only a broad and general comparison can be made of these statistics. But the averages do convey an idea as to one reason at least why the output in terms of freight traffic moved per employee is so low.

(Per capita 1954-55.)

	Passengers carried.	Passenger miles.	Tons carried.	Ton miles.
India	3.5	103	0.307	72
U.S.A.	2.7	180	5.582	435
U.K.	19.5	408	8.789	3,722
Canada	1.8	181	1.697	285
Japan*	40.9	599	3.887	593
France	11.7	385	4.748	1,158
South Africa*	20.9	Not available.		

* Relates to 1953-54.

in India was 103 miles in a year, as against 408 in the U.K., 599 in Japan, 385 in France and 180 and 181 in U.S.A. and Canada respectively. On the goods side, Indian Railways handled per capita only 72 ton miles, against the high figure of 3,722 and 3,382 in Canada and U.S.A. respectively. The corresponding figures for U.K., France, Japan and South Africa are 435, 593, 285 and 1,158.

A study of these figures clearly indicates the leeway that has to be made up and the scope for further development.

Travel Habit

Another point worth considering here is the proportion of the per capita income spent on rail travel. The following table presents for the year 1953-54 a comparison of the per capita national income, per capita expenditure on rail passenger travel and the proportion which the latter bears to the former. For easier comparison, the respective national currencies have been converted into their equivalent Indian rupee value at the prevailing official rates of exchange.

Countries.	Per capita national income.	Per capita expenditure on rail travel.	Percentage of col. (3) to col. (2).
	RS.	RS.	
Australia	4,373	49	1.1
Canada	6,238	27	0.4
France	3,323	40	1.2
India	284	3	1.1
Italy	1,421	15	2.0
Japan	910	18	1.2
South Africa*	1,293	16	0.8
U.K.	3,880	30	0.3
U.S.A.	9,100	25	

* 1952-53.

Volume of transportation work done per employee in India and certain foreign railways (1954-55).

	Passengers carried per employee.	Passenger miles per employee.	Tons carried per employee.	Ton miles per employee.
India	..	..	..	..
U.S.A.	..	1,342	39,882	119
U.K.	..	413	27,506	2,158
Canada—	..	1,717	35,885	491
National Railway	..	150	12,373	667
Pacific Railway	..	109	14,726	623
Japan*	..	7,938	116,192	329
France	..	1,290	42,566	429
South Africa*	..	1,409	N.A.	320
N.A.=Not available.				
* 1953-54.				

The figure of capital-at-charge per employee is the lowest on the Indian Railways. Railway operation by its very nature is capital intensive rather than labour-intensive. The figures appear to suggest that the Indian Railways may at the present stage of development profit substantially from a rise in capital investment per employee.

Appointments under Madras Government

The Government have directed that in the case of applications for posts to which recruitment is not made by copies of certificates certified as correct by retired officials of Government, doctors and headmasters of high schools

be accepted, provided that in the case of retired officials of Government, the certifying person is a retired Gazetted Officer.

The acceptance of certified copies of documents will, however, be subject to the condition that the production of original certificates is insisted upon by the appointing authorities before appointments are actually made.

Cattle Fair

Under the cattle rehabilitation scheme in the cyclone-affected areas of Tanjore, Ramanathapuram, Madurai and Tiruchirappalli districts, prizes were awarded to the first three largest cattle (work bullock) sellers at the cattle fair held recently at Neerathanallur near Kumbakonam. Cash prizes to the value of Rs. 300, 200 and 100 were awarded by the Revenue Divisional Officer, Kumbakonam.

Similar prizes were also awarded at Kalugumalai cattle fair for the first three largest sellers of cattle.

A.I.R. Tiruchi : Rural Programmes for July 1956

Sunday, 1st July 1956—

Plant Pests : Discussion.

Grama Kalakshepa Mandapathil : Yesunathar : Musical discourse by P. K. Sundaram Pillai.

Market rates and water level readings.

Topical discussion ; weather report.

Monday, 2nd July 1956—

Hemorrhagic septicaemia in cattle : Discussion.

Folk Art : Kuravan Kurathi Tharkam.

Market rates ; water-level readings.

Topical discussion ; weather report.

Tuesday, 3rd July 1956—

Farm Forum : Discussion : Participant : P. Srinivasan.

Folk songs.

Pookkara Ponnai (1) Ponnai Puka Pukazh—Serial sketch by 'Sukhi'.

Market rates and water-level readings.

Topical discussion ; weather report.

Wednesday, 4th July 1956—

Leprosy : Discussion.

Naiyandi Melam by M. V. Azhagu and Party.

The latest in research : Discussion on subjects of interest and use to farmers.

Market rates and water-level readings.

Topical discussion ; weather report.

Thursday, 5th July 1956—

Farm Forum : Discussion.

Folk Ballad (1) Kathavarayan Kadai.

Market rates and water-level readings.

Topical discussion ; weather report.

Friday, 6th July 1956—

Ani Alangaram (1) Kai Valayil—Musical feature.

The Village Welfare Association : Discussion. Participant : K. S. Vasan.

Grama Padasalaiyil (4) Naaladiar—Exposition.

Market rates and water-level readings.

Topical discussion ; weather report.

Saturday, 7th July 1956—

Kaniyudirum Solai : Song.

The Adult Literacy Class : Tirukural : Tivina Aicham (Kural Nos. 203 and 204).

Nermai Onre : Song.

'Improved Methods of ground-nut cultivation' : Talk in Tamil arranged by the Department of Agriculture, Government of Madras.

Weekly review of market rates.

Market rates and water-level readings.

Topical discussion ; Weather report.

Sunday, 8th July 1956—

Potato : Improved method of cultivation : Discussion.

Varna Mettu : Folk tunes.

Gramathu Machan : Serial sketch.

Market rates and water-level readings.

Topical discussion ; weather report.

Monday, 9th July 1956—

Poultry diseases : Discussion.

Folk Art : Dummy Horse Dance : Participants : S. Govindaswamy and Party, T. P. Muniswamy and V. Sellamuthu.

Market rates and water-level readings.

Topical discussion ; weather report.

Tuesday, 10th July 1956—

Farm Forum : Discussion : Participant : T. P. Venkataraman.

Gnana Chuvadi : Isai Nigazchi.

Ullasa Yattirai : Play.

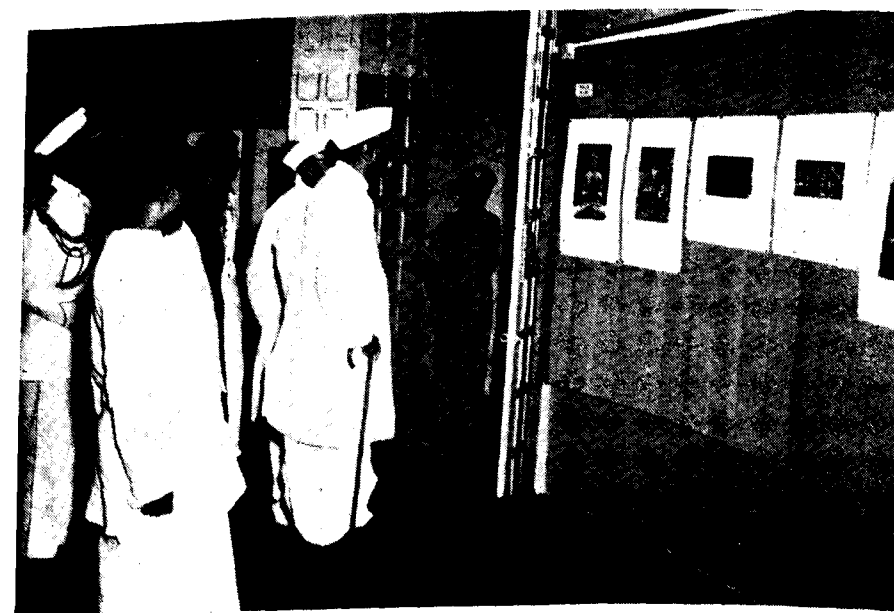
Market rates and water-level readings.

Topical discussion ; weather report.

Wednesday, 11th July 1956—

Listeners' Letters.

Poocharam : Songs on Lord Buddha.



The President, Dr. Rajendra Prasad, performed the opening ceremony of the Buddha Jayanti Exhibition at the Centenary Hall, Government Museum, Madras, on May 27. Picture shows the President being conducted round the Exhibition at Madras after its formal inauguration.

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- Pulluruvi (1) Somberi : Sketch.
Market rates and water-level readings.
Topical discussion ; weather report.
- Thursday, 12th July 1956—
Farm Forum : Discussion—Participant : A. Palaniyandi.
Folk Ballad : Nalla Thangai.
Market rates and water-level readings.
Topical discussion ; weather report.
- Friday, 13th July 1956—
Panankattu Nari : Play by K. P. Ganapathi.
Irulil Oli : Serial feature on Gandhiji's life.
Namadu Dittam : Cattle wealth : Discussion.
Market rates and water-level readings.
Topical discussion ; weather report.
- Saturday, 14th July 1956—
Kummiyadi Tamizhnadu : Song.
The Adult Literacy Class : Tirukkural : Tivina! Acham : (Kural Nos. 205 and 206).
Vayudeva Varunadeva : Song.
Radio Interview : Palm-gur manufacturer.
Weekly review of market rates.
Market rates and water-level readings.
Topical discussion ; weather report.
- Sunday, 15th July 1956—
Kashmir : Agriculture : Discussion.
Varna Mettu : Folk tunes.
Ezhuthukkara Ekambaram : Serial Sketch.
Market rates and water-level readings.
Topical discussion ; weather report.
- Monday, 16th July 1956—
Black-quarter in cattle : Discussion.
Folk art : Lavani : Participants : Raman and Lakshmanan.
Market rates and water-level readings.
Topical discussion ; weather report.
- Tuesday, 17th July 1956—
Farm Forum : Discussion.
Folk songs.
Pookara Ponnai (2) Poonthottathil : Sketch.
Market rates and water-level readings.
Topical discussion ; weather report.
- Wednesday, 18th July 1956—
Tuberculosis : Discussion.
Udukkadi Kadai.
Todia Pattai Kettanaya?
- Market rates and water-level readings.
Topical discussion ; weather report.
- Thursday, 19th July 1956—
Farm Forum : Discussion.
Punitha Yattirai : Feature by A. M. Yousuf.
Tudippadalgal.
Market rates and water-level readings.
Topical discussion ; weather report.
- Friday, 20th July 1956—
Folk song Lesson.
The Village Women's Forum : Discussion.
Thalattupadalgal.
Pattai Kelur gal.
Market rates and water-level readings.
Topical discussion ; weather report.
- Saturday, 21st July 1956—
Seekadir Venmai : Song.
The Adult Literacy Class : Tirukkural : Tivina! Acham (Kural Nos. 207 and 208).
Inikkum Karumbu : Song.
Talk in Tamil arranged by the Director of Agriculture, Government of Madras, Madras.
Weekly review of market rates.
Market rates and water-level readings.
Topical discussion ; weather report.
- Sunday, 22nd July 1956—
New Method of cultivating groundnut : Discussion.
Grama Siruvargal : Feature on Five-Year Plan : Participants.
Students of Zamindar's High School, Turaiyur.
Market rates and water-level readings.
Topical discussion ; weather report.
- Monday, 23rd July 1956—
Sterility in cows.
Folk Art : Karaha Attam : Participant : T. K. Marimuthu and Party.
Market rates and water-level readings.
Topical discussion ; weather report.
- Tuesday, 24th July 1956—
Farm Forum : Discussion.
Gnana Chuvadi : Isai Nigazhchi.
Kodai Vallal : Play by N. Raghavan.
Market rates and water-level readings.
Topical discussion ; weather report.
- Wednesday, 25th July 1956—
Listeners' Letters.
Poocharam : Songs on Lord Buddha.
- Questions on the Air : Discussion on subjects of rural interest specially those relating to agriculture :
Participants : R. Vinayakam Pillai and A. Vedaratnam Pillai.
Market rates and water-level readings.
Topical discussion ; weather report.
- Thursday, 26th July 1956—
Farm Forum : Discussion.
Folk Ballad : Mathurai Veeran.
Market rates and water-level readings.
Topical discussion ; weather report.
- Friday, 27th July 1956—
Eriya Natchatiram : Play by R. Arumugham.
Irulil Oli : Serial feature on Gandhiji's life.
Namadu Dittam : (2) Cottage Industries : Discussion.
Market rates and water-level readings.
Topical discussion ; weather report.
- Saturday, 28th July 1956—
Anbin Ellaiyai : Song.
The Adult Literacy Class : Tirukkural : Tivina! Acham (Kural Nos. 209 and 210).
Inbathamizh Mozhi : Song.
Radio Interview : Fisherman : Bhatti.
Weekly review of market rates.
Market rates and water-level readings.
Topical discussion ; weather report.
- Sunday, 29th July 1956—
Grama Panchayat : Madu Meitha Vazhakku : Feature by N. Vasudev.
Varna Mettu : Folk tunes.
Market rates and water-level readings.
Topical discussion ; weather report.
- Monday, 30th July 1956—
Paralysis in calves : Discussion.
Folk art : Villippattu on Onre Kulam.
Market rates and water-level readings.
Topical discussion ; weather report.
- Tuesday, 31st July 1956—
Farm Forum : Discussion : Participant : P. Palaniappan.
Folk Songs.
Pookkara Ponnai (3) Kovilukkul Ponnai : Serial sketch by 'Sukhi'.
Market rates and water-level readings.
Topical discussion ; weather report.

The Spinning Wheel

When and how the first spinning wheel was made in India is a forgotten story but the undisputed supremacy enjoyed by Indian textile goods for 2000 years, right up to the 18th century, in Asian and European markets is too well known to be forgotten. How the thriving industry was crippled and subsequently destroyed to suit the colonial ends by the then ruling power is also a known fact.

But the tradition of spinning has persisted not only among professional weavers and spinners but among most rural homes where the craft was handed down from generation to generation, from mothers to daughters. In fact, a considerable spinning lore in terms of spinning songs and stories developed in many parts of India.

In the wake of the freedom struggle in the country under the leadership of Mahatma Gandhi a good deal was done to give impetus to spinning, home spun cloth and village industries.

Production of cloth by handlooms in 1953 was estimated at 1,300 million yards. The Government are considering the question of providing increased protection to the handloom industry and of ensuring adequate market for its products. The Village and Small Scale Industries (Second Five-Year Plan) Committee in its report has recommended that production by mills and power looms should be limited to the level already reached, i.e., 5,000 million yards and 200 million yards respectively so that all increased demand during Second Plan could be met by expansion of handloom industry.

constructed. Nearly 4,000 miles of national highways were improved and provided with one-lane asphalted carriage-way, besides 400 miles of these highways being made fit for two-lane traffic.

The Second Plan provides substantially large funds for road development. A sum of Rs. 55 crores has been provided for national highways. Together with the road construction activities of the State Governments, the National Extension Community Projects and construction through voluntary efforts, at the end of the Second Plan about two-thirds of the target set in the Nagpur Plan is expected to be reached. The Nagpur Plan proposed in 1943 that over a period of 20 years no village in a well-developed area should remain more than five miles from a main road.



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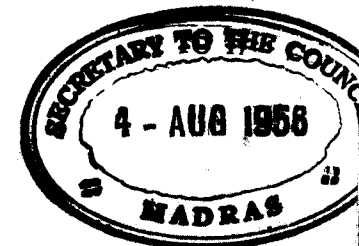
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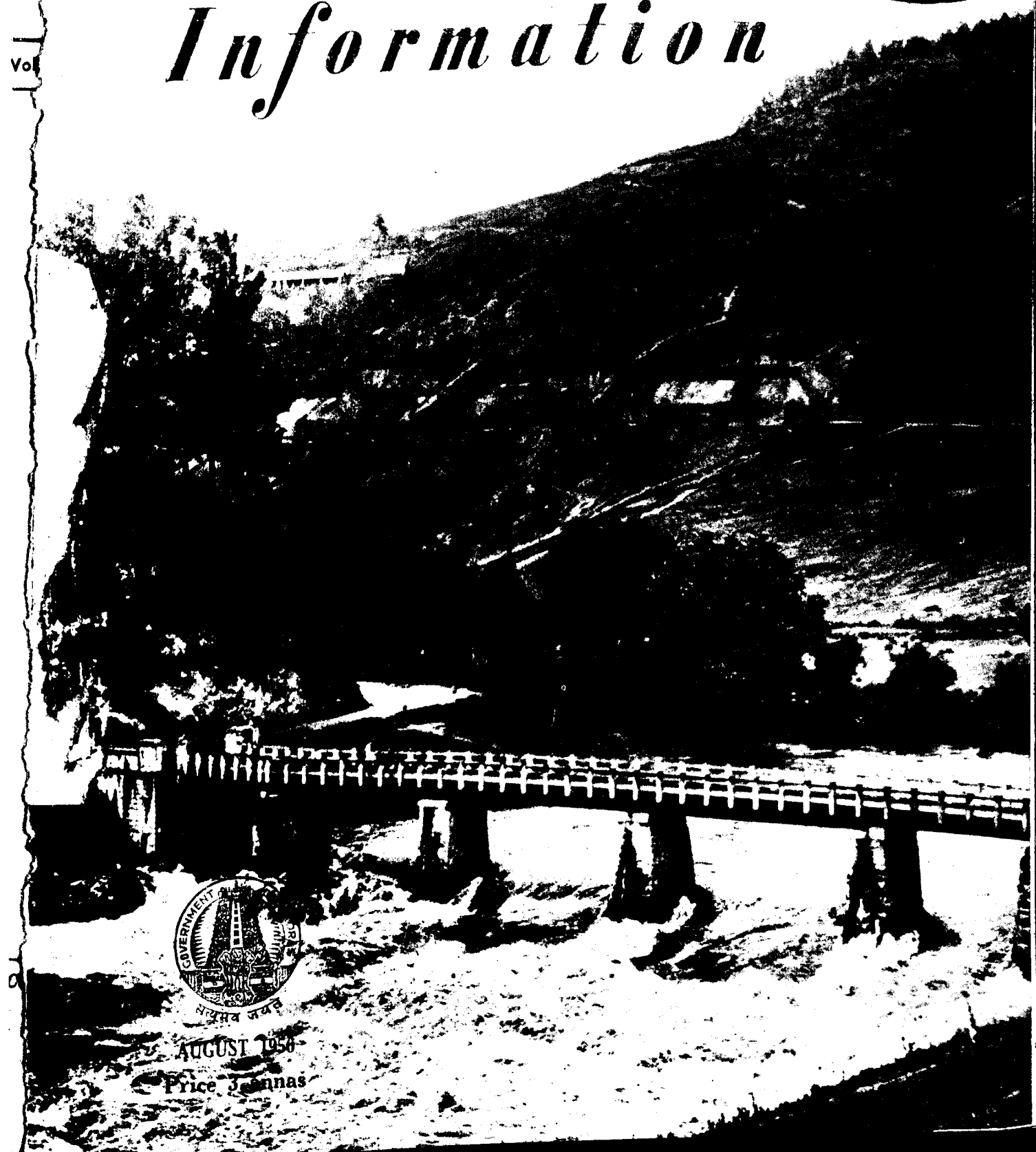




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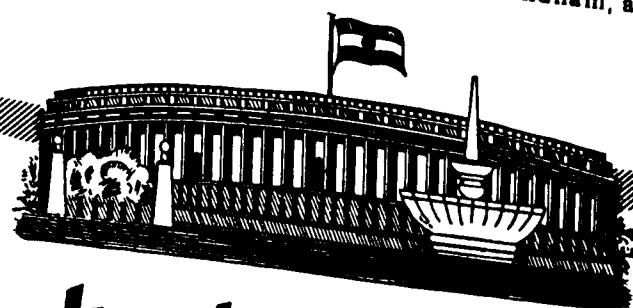


AUGUST 1956

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Sri O. V. Alagesan, Union Deputy Minister for Transport, called on Vinobaji at Madurantakam. The Saint and the Minister are seen discussing Sri Divya Prabandham, a Tamil devotional classic.



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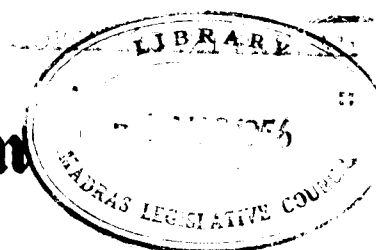
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"WE SEEK TO SERVE AND NOT TO COMPETE"

August 1956

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Cover Picture : A beautiful view of the Kundah Bridge surrounded by solemn majesty and carefree playfulness. In the background is the imposing hill with its green trees and wild growths. The gushing waters of the river flow on in rapture. This idyllic scene is soon to become a busy centre of purposive human activity, for, it is near this bridge that the forebay dam is to be constructed. (For details see page 15.)



Sri M. Bhaktavatsalam, Minister for Labour, Government of Madras, and Leader of the Indian Delegation to the I.L.O. Conference, speaking at the I.L.O. Conference in Geneva on the 13th June 1956 during the general discussion on the report of the Director-General. The full text of the speech is given below.

Better Relations Between Labour and Management

Indian way: Settlement of Conflicts through Conciliation

We are witnessing rapid economic changes all over the world, particularly in the under-developed regions which have politically come into their own recently. The Director-General has rightly pointed out that the essence of the 20th century revolution is the constantly growing importance, in the world affairs, of the nations of Asia, Middle East, Latin America and Africa. While the developments in these regions have, by and large, been welcomed by the countries of the West, mental adjustment to the changes occurring in the balance between the continents is still not unreserved. Even though facts and developments clearly show that certain changes have come about permanently, it is regrettable that we continue to look at these events with blinkers on. I am referring to the position of China. It is now crystal clear that the Chinese mainland has once and for all come under the control of the Government of the people's Republic of China, but still we are not ready to recognise this simple fact, but depend upon some political technicalities to keep out the true representatives of an appreciable proportion of the world's population. I hope that before long better counsel will prevail and that the I.L.O. will completely become representative of the working masses of the world.

I have taken the liberty of dilating a little on this point, as the Director-General himself, towards the very end of his report, has raised the issue as to how the work of the Organization can have the practical and realistic

emphasis which is essential if we are to make our full contribution towards balanced economic and social advance in a changing world. Unless we are able to settle in a practical manner extraneous issues whose discussion makes inroads into the valuable time of the I.L.O. meetings, we shall find it difficult to carry on our work in an amiable atmosphere.

Integrated Development.

A perusal of the Director-General's Report and his treatment of the impacts of economic and social changes and his analysis of the problem of the rural-urban employment reflects to a large extent the thinking that has been going on in India, in connection with the formulation of the Second Five-Year Plan. The Second Five-Year Plan aims at a larger increase in production, in investment and in employment. Simultaneously, it will accelerate the institutional changes needed to make the economy more dynamic and more progressive in terms no less of social than of economic ends. The plan recognises that development is a continuous and all-embracing process,

touching all aspects of community life. Economic planning in India extends itself into extra spheres, educational, social and cultural. There are no doubt big gaps between what is desirable and what has been achieved. But the First Five-Year Plan has laid the foundation for the development of the social relationships and social institutions which are in keeping with economic and technological progress.

Industrialisation, it is true, has resulted in vast numbers of people being uprooted from their traditional ways of life, and subjected to an unfamiliar rhythm of life and work. In India, however, we have been trying to find a solution for this problem by effort to contain the rural population within the rural areas by suitable programmes of land development, community projects, National Extension Services and the development of the rural, cottage, and small scale industries. A fair amount of success had attended these efforts which will be further intensified during the Second Five-Year Plan period. Agrarian Co-operative

will develop to aid the rural worker, whether engaged in agriculture or in other employment.

Rural Industries.

Ours is a country with predominantly a rural economy. The vast majority of our population depends on land for its existence. We have no surplus land and the land available in our country is not sufficient to provide full employment to all our population. Actually large number of our people in rural areas are unemployed or under-employed. In order to find employment for these, we are taking steps to develop rural, cottage and small-scale industries. It has been ascertained that employment potential on the basis of capital investment in these industries is several times more than what it would be in heavy industries. This does not, however, mean that we are not planning for setting up of heavy industries. On the other hand we are establishing all over our country as many heavy industries as possible. What I mean to stress here, is that for fighting unemployment and under-employment in our country, we have to



I.L.O. Conference—A Scene from another Session.

develop rural small scale industries and we have taken adequate steps to do the same in our Second Five-Year Plan.

Since an appeal has been made to the delegates to confine their observations to the points raised in the Director-General's Report, I shall not go into further details regarding what, we, in India, propose to do during the years to come. I may inform you, however, that while the main emphasis in the Second Five-Year plan is on the economic development of the country, it has recognized the need for the simultaneous building up of other social services like health and education. Provision has also been made for the development of several Labour Welfare Schemes.

The Director-General has envisaged three lines of activity for the I.L.O., namely, keeping in touch with developments in the new industrial processes such as automation in industry and the industrial use of atomic energy; a comprehensive worker's education programme; and a new programme for promoting better labour-management relations. The Government of India fully support these lines of activity. There is no doubt that not before long most of the countries would be using atomic power for industrial purposes. Such power is peculiarly useful and important for India and other under-developed countries. The use of atomic power will no doubt give rise to several labour problems and the I.L.O. would be doing a useful work by undertaking research into the labour and social problems connected with these new industrial processes.

The workers education programme will be of considerable assistance in broadening the outlook, efficiency and perspective of the workers. I hope it will be possible for more funds to be set apart to finance this programme.

The Director-General has done well to lay emphasis on the need for promoting better labour-management relations. Economic development and increase in productivity is next to impossible if employers and workers fritter away their energies in endless conflicts. We, in India, have attempted to settle such conflicts by laying greater stress on conciliation, and where it fails, on voluntary arbitration. As a matter of fact, we have introduced a law to give legal sanction to such voluntary arbitration. Even so, the

provision for compulsory adjudication has been retained, and is used in the event of all other methods for settlement of disputes failing. This is so, because our country, at the present juncture, cannot afford loss of production consequent on labour management disputes. But the elimination of disputes cannot by itself ensure industrial peace. The technological changes have led workers, particularly in under-developed countries to be scared by the fear of large scale unemployment. The I.L.O. has an important role to play in allaying this fear and also showing the way by which rationalisation and introduction of modern techniques of production can be achieved without any bulk displacement of labour.

Workers' Participation in Management.

One of the effective ways of bringing about cohesion between employers and workers is to promote active participation of workers in the actual running and management of the industrial undertakings. Particular emphasis is being placed on labour-management partnership in the development of

better industrial relations in India. Some studies are available of the working of such systems in other countries and I suggest the I.L.O. can be of further assistance by developing schemes of technical assistance and research in this important field.

We in India—Government, employers and workers alike—have watched with keen interest and appreciation the widening of the scope of the work of this great Organization, particularly, its operational activities. The Technical Assistance provided to our country has been of some value in accelerating the tempo of our programmes of labour welfare. I would also like to take this opportunity to convey our gratitude to those countries which have been offering assistance to India, either under the various technical assistance programmes or through bilateral agreements, which has been given freely and which has been received without inhibitions. In our own humble way, we have also been attempting to give a helping hand to some of our neighbours.

Award to Police Constable Andy

Police constable Andy of Manantoddy Police Station, Malabar district, is the proud recipient of the Kendall Humanity Medal. He has been awarded this medal by the Bombay Humanitarian League for his valiant deed in saving the life of a student.

On April 27, 1955, a 14-year old boy named Jacob, studying in Fourth Form in the Board High School, Manantoddy, Malabar district, fell into a well accidentally in his own house. The well was more than 40 feet deep. The servant boy of the house immediately raised an alarm that "Kunhi Ettan" fell into the well. Immediately the father of the boy rushed to the well and looking down, he saw the head of his son above the water. The elder brother of the boy also rushed to the scene, but as water was too deep, he was helpless to save the child.

The alarm raised by the servant of the house attracted the attention of Police Constable No. 1425, Andy by name, belonging to Manantoddy Police Station, who was on his round of beat in his village. When nobody had the courage to go down the well, Sri Andy got down into the well immediately at the risk of his life, and saved the



boy's life by lifting him up through a rope.

The valiant Police constable removed the child to the local hospital, where first-aid was rendered. The boy was soon restored to the father, hale and healthy.

Palm Gur Industry : Its Development in Community Project Areas

There are 247 jaggery manufacturing co-operative societies in the Community Development areas of this State. With a view to develop the palm gur industry on modern lines and also to increase the income of the ex-tapper members of jaggery manufacturing co-operative societies. Government have sanctioned free supply of improved gur making sets to the ex-tappers.

Improved method in gur manufacturing.

In the Lower Bhavani Project area, 197 improved gur making sets have been supplied free of cost to select jaggery manufacturing co-operative societies at the rate of 1 set for 20 members. One Palm Gur Instructor has been sanctioned to this area exclusively for the distribution of the sets and also to train the members to adopt the improved methods of jaggery manufacture. He has so far constructed 181 Kifayar furnaces and conducted 170 demonstrations. Similarly in the Malampuzha Project area, 502 gur making sets have been distributed to the members of jaggery manufacturing co-operative societies at the rate of one for 20. Another Palm Gur Instructor was sanctioned to this area and he attends to the distribution of the sets in the area. He constructed 502 kifayar furnaces and conducted 100 demonstrations in the improved methods of jaggery manufacture.

Government subsidy and help.

It is also proposed to supply pedal driven centrifugal machines and crystallisers to the select jaggery manufacturing co-operative societies in the two project areas for white sugar manufacture from palm jaggery. A scheme for the manufacture of white sugar through the Pallasana Jaggery Manufacturing Co-operative Society was sanctioned by Government with a subsidy of Rs. 9,942 towards the cost of staff, machinery, equipment, etc., and a loan of Rs. 29,490 for the purchase of rat. But the society has not yet commenced the scheme for want of electricity in the village. Hence a revised scheme has been drawn up for

using pedal driven as well as power driven centrifugal machines for training the new members of the society in the production of white sugar and to undertake such production on a commercial scale. The society has agreed to work the scheme and it is being submitted to Government separately for providing the necessary financial assistance to the society.

Improved gur making sets were also supplied free to the members of jaggery manufacturing co-operative society in other Community Development Block areas as shown below :—

Name of the block and district.	Number of sets supplied.
1 Chermadevi, Tirunelveli.	51
2 Chidambaram, South Arcot.	2
3 Tirukalikundrum, Chingleput.	4
4 Chinnasalem, South Arcot.	3
5 Valathi, South Arcot.	8
6 Tiruthuraiipoondi, Tanjore.	37
7 Srivilliputtur, Ramanathapuram.	31
8 Rajapalayam, Ramanathapuram.	
9 Sivakasi	

Besides the free supply of sets mentioned above 32 sets were supplied at half the cost to the societies in the Community Development areas in Tirunelveli and South Arcot districts.

The notable achievements of co-operative societies.

The Chintamani Jaya Vilas Jaggery Manufacturing Co-operative Society in the Sankarankoil block of Tirunelveli district has undertaken milking activities as subsidiary occupation for its members. A Government loan of Rs. 3,500 was disbursed to the society during the year 1955-56 to enable its members to purchase milch animals. The District Veterinary Officer, Tirunelveli has sanctioned a stud bull to the society free of cost for the benefit of the members. The Block Development Officer, Sankarankoil, has sanctioned a sum of Rs. 150 to other societies towards 50 per cent of the cost of

two Palgova making sets. Government have also sanctioned a loan of Rs. 375 to other society to enable it to purchase a tricycle to sell *neera* to the public.

The members of the Melmanagudy Jaggery Manufacturing Co-operative Society in the Chidambaram block were sanctioned a Government loan of Rs. 3,250. for the purchase of milch animals. The milk produced by the society was sold through the agency of Bhuvanagiri Milk Supply Society. Two societies in Kurinjipadi block obtained loans from the Central Bank amounting to Rs. 745 and disbursed them to 21 ex-tappers. The Tiruchopuram Jaggery Manufacturing Co-operative Society was supplied with one set of palatable products equipment free of cost by the Government for the use of the members. The ex-tappers and their family members were trained by the Palm leave instructress sanctioned by Government at Mettupalayam and Tiruchopuram villages in the manufacture of palm leaf products. They were also trained in the preparation of improved jaggery palatable products. During 1954-55 Government sanctioned a subsidy of Rs. 330 to each of the Chintamani Jaya Vilas, Vasudevanallur, and Subramaniapuram Jaggery Manufacturing Co-operative Societies towards the cost of establishment, godown rent and cost of a set of balance and weights. These societies carried on marketing activities without sustaining loss.

The Peddanaikanpalayam Jaggery Manufacturing Co-operative Society in Salem district has been sanctioned a subsidy of Rs. 655 towards half the cost of the capital expenditure to be incurred by it for undertaking the manufacture of palatable products by purchasing the centrifugal and confectionery machines by the Block Development Committee, Auttur, out of the National Extension Service Funds. The society has since remitted the other half cost of Rs. 655 towards the capital expenditure to the Block Development Officer and has requested him to purchase the machine early. The society will commence production as soon as the machines are supplied.

Domestic Spinning Unit

The Economics of Sixteen-Spindle 'Mill'

SRI D. BALASUNDARAM, B.ENG. (Sheffield)

In December 1955 Textool Research Section has taken up the problem to study the Amber Charka and to develop machine which can be usefully employed to increase employment without any detrimental effect to the overall economy of the country. It is to be used as a cottage industry plant. The owner is the worker and his home is his factory so that both capital and labour charges do not exist. Any one with very little capital can earn a comfortable livelihood selling his goods in the competitive market without the aid of any subsidies, thus running a business that will stand on its own legs. The 16 spindle unit was evolved as a result of this.

Before going into details of the new technological invention let us know

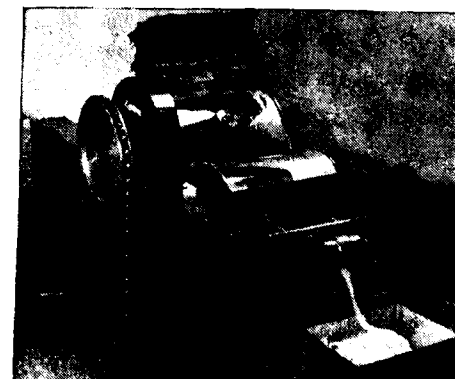
a little of the principle involved in cotton spinning.

Let us first see what is cotton yarn. Cotton yarn is nothing but a rope of uniform thickness having a certain amount of breaking strength to withstand the stress and strain during weaving. If an ideal yarn is taken the number of fibres at every cross-section of the yarn will be the same. In order to get strength, these fibres are twisted together. So an ideal yarn will be having the minimum number of twists and equal amount of fibers at every place in the yarn. This is an impossibility because the cotton contains fibres of different lengths and diameters, short and long fibers. So our attempt is to make the yarn as near to this ideal condition as possible.

In order to achieve this the following are very important requisites.

1. Removing the seed from the field cotton.
2. Opening the cotton and removing the impurities along with short fibres.
3. Parallelising the fibres without breaking or injuring them.
4. Putting a definite quantity of fibres per unit length and giving them the required amount of twist to get the required strength.

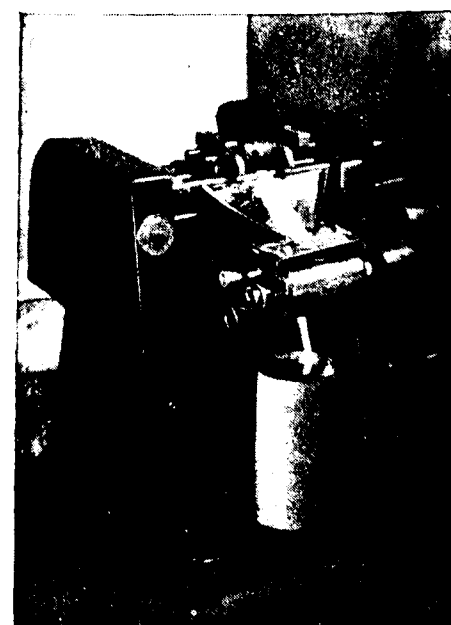
In our Domestic Spinning Unit the two processes of cleaning the cotton and forming a sliver are taken up by two different units. One is known as the Cotton Opener and the other is Carding Engine. The Cotton Opener not only opens the cotton without injuring the fibres, it also removes the



Carding Engine.

short fibres and impurities and deposits the opened out cotton with uniform density over a definite area in the form of a lap.

This lap is fed to the next machine namely the card which opens out the cotton thoroughly, removes short fibers as well as foreign matter and delivers in the form of a web which is collected and consolidated by the machine itself forming a uniform sliver. A sliver resembles the yarn without strength. The next process is to elongate this sliver to the required extent and to give the necessary twist to obtain strength. This is achieved by the Domestic Spinning unit in two more stages known as Drawing Frame and the Spinning Machines.



Drawing Frame.

2A

The Draw Frame consists of two pairs of fluted rollers the distance between them is kept in such a way that no fiber is gripped between the pairs at the same time. This is provided with a constant draft of four. By passing four slivers through this three times we get the fibres parallelised to the required amount in order to spin a uniform yarn. This finished sliver is put on the Ring Spinning Frame which is similar in all respects to its elder brother who is in the spinning mill. Here we use the most modern technique for the proper controlling of the fibres just by changing the small gear wheel we can change the draft that is applied in order to get the count that is required. The spindles are like the one in the mills. We can also change the turns per inch by changing one gear wheel.

All the parts are made of iron and steel so the question of wearing out is very little. It consists of 16 spindles. You need not stop the frame if an end is broken. It can be mended while working. Thus the production of the frame is not affected. The spindles are driven by means of tapes as in a mill. So there is very little slippage and thus the turns per inch in the yarn is kept constant.

Another good advantage is that there is very little skill needed on the

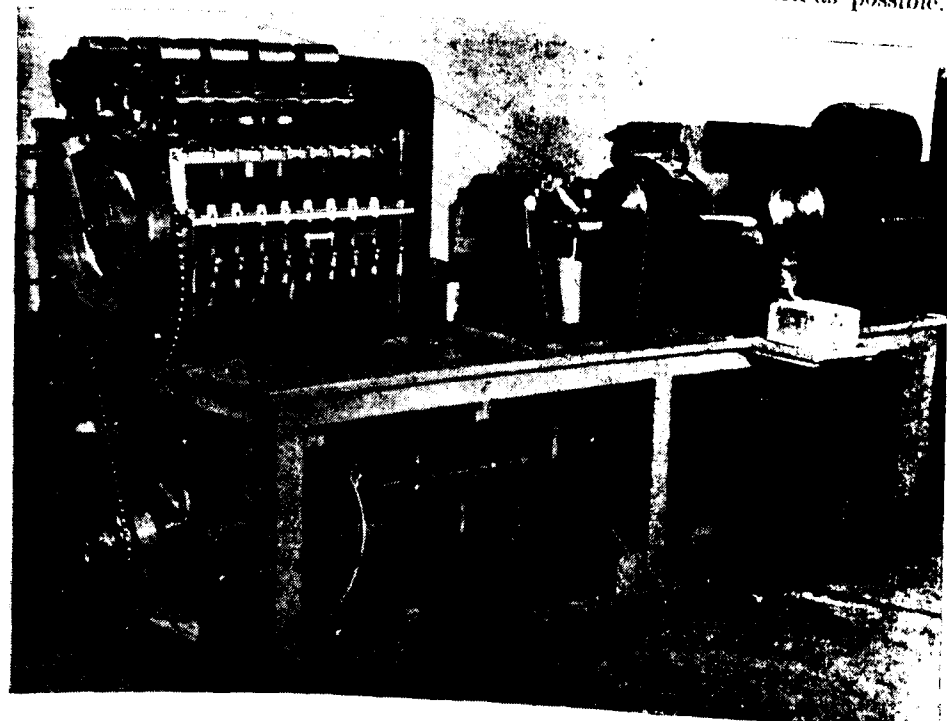
part of the worker. He has only to weigh a certain amount of cotton and then pass it through the opener, through the card where it is cleaned and made into a sliver. Four such slivers are passed through the Drawing Frame and this process is repeated three times. Then the sliver is ready for spinning. He has only to change two wheels according to the draft and twist required for that particular count.

In short this can be called a mill because all the principles employed there are also adopted in this unit and the yarn got by this process is in no way inferior to the yarn produced in a mill.

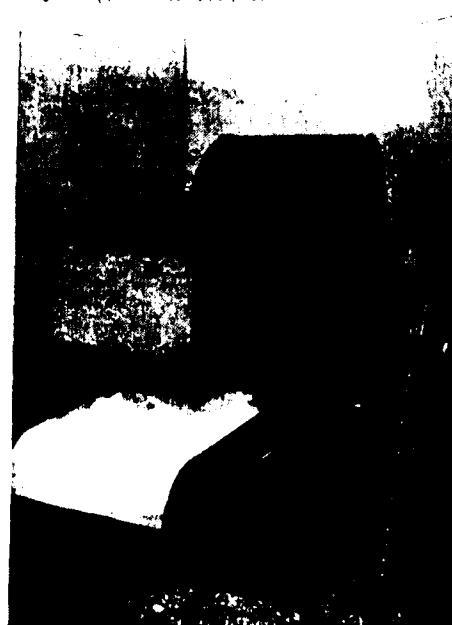
The most important factor is whether this unit can support a wage earner or not.

If it is worked by a small motor $\frac{1}{2}$ H.P. one man can attend to all the 4 frames, and he can produce $7\frac{1}{2}$ lb. of 20s in 10 hours.

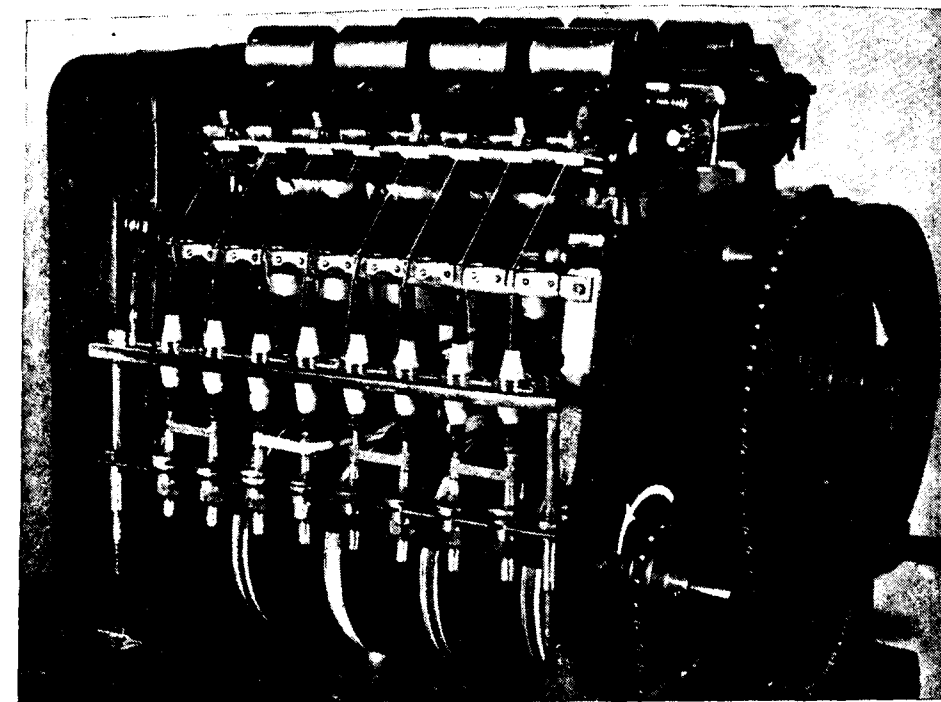
	RS. A. P.	RS. A. P.
The cost of $7\frac{1}{2}$ lb. of 20s yarn at Rs. 17-8-0 per bundle of 10 lb.	..	13 2 0
Cotton required is 8-36 lb. at Re. 1-1-1 per lb. priced at Rs. 850 per candy.	8 14 9	



Domestic Spinning Unit.



Cotton Opener.



Spinning Frame.

	RS. A. P.	RS. A. P.
Current charges	0 6 0	
4 units at 1½ annas per unit.		

9 4 9	3 13 3
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and thus it will give an adult a gross earning of Rs. 114-13-6 per month of 30 days. Thus assuring a saving of Rs. 90 allowing all contingencies and leaving a safe margin in all items of our calculations.

It can also be worked by hand then one more man is required and the results will vary according to the capacities of each of them.

The cost of the unit when mass produced will be very reasonable compared to the production capacity.

By the introduction of this domestic spinning unit the Government can save several crores of rupees as subsidies as proposed by the Amber Charka.

The pilot plant was given a demonstration before the Khadi Board which met at Coimbatore and the members as well as the Finance Minister Mr. Subramaniam and the Labour Minister Mr. Bakthavatsalam were much impressed and the Madras Government has placed an order for 100 units to be given a field test by distributing it to the villagers.

We gave a demonstration before the National Development Council at New Delhi. The Prime Minister of India was much impressed by the quality of the yarn and the then Finance Minister of the Government of India, Mr. Deshmukh, was also impressed by the economics of this unit.

Snippets

1. A sum of about Rs. 2.5 crores has been allotted for the reorganisation and development of museums in India in the next five years.

2. Air-conditioners of the value of Rs. 40.9 lakhs were manufactured in India in 1955.

3. The area under cotton in India increased to 18.3 million acres in 1954-55 from 17.2 million acres in the previous year.

4. The Government of India have so far sanctioned 13 industrial estates in various States with a view to promoting industrial development on a decentralised basis.

5. About 2,300 family planning clinics will be set up during the Second Five-Year Plan period.

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Srimathi Durgabhai Deshmukh addressing the State Social Welfare Board meeting.

Conditioning Reflexes for Development

I. Distortion of Perspective

SRI J. M. LOBO PRABHU, I.C.S.

When in 1947, India became an independent country, pledged to democracy, the administrative change was difficult, but the psychological one was more so. Centuries of foreign and arbitrary rule had affected the very roots of our thought, not only on public questions but also on personal ones. In political matters there was some preparation in the preceding struggle. In social matters, the reaction

was a backward one, to the period before foreign rule. The question is if we can look forward in certain matters and look backwards in others? Between the two cross movements is there a stalemate in which we accept many concepts of our foreign rules which have lost their purpose? Is it possible to integrate our thinking on the two new forces, democracy and science which are the gift of 1947? This would give us a perspective, free from distortion and enable us, even in infancy of our independence to maturity of thought. The basic concepts of the Community and Extension development deserve to be examined with reference to the forces of democracy and science.

The first concept of community development is people's participation.

works are undertaken according to the contribution generally in labour which the beneficiaries make. It is stated that the people's contribution up to March 1955 has been of the value of 11.37 crores, against Government's expenditure of 21.30 crores. These are impressive figures, signifying idle labour converted into useful amenities. Only the labour was largely rendered by those who live by it, and could least afford to give it. By the test of democracy, the classes who for caste conventions or because they are rich do not labour, have benefited by the contribution of poorer classes of the lower castes who labour. In those instances where the rich have been made to contribute at least to the feeding of the workers, the inequality has been less. In the name of democracy, the workers are now tending to ask for payment to be made by the rich or by the State. In the name of science, economic science, it is claimed that only when labour is paid, is purchasing power created, which will bring the village economy nearer that of the towns. It would appear that the whole question of labour contribution deserves to be examined on ethical and economic grounds, while idle labour should be employed, it should be paid to raise its standard of life. In the Chingleput Five-Year Plan, it has been provided that idle labour may be utilised in constructing houses first for itself, the cash contribution required being made by Government, to be

repaid in labour which the owner will give to public projects. This is a measure of democracy, both on the production and consumption side, which on one hand brings money into the village with a higher standard of living for the poor, and on the other converts idle labour into amenities, now sadly lacking.

Education For Earning or Learning?

The second aim of development is to introduce dynamism in the village. The question is if Sarvodaya as it is now understood is dynamism. The original concept, which Gandhiji took from Ruskin's 'Unto This Last' implied priority for lowliest and humblest in the community. In the Gandhian programme special stress was laid on the social uplift of women, the untouchables and the tribals. Basic education and cottage industries were considered a means to this end. While uplift of the underprivileged is an essential part of democracy, it deserves to be examined if basic education and cottage industries are scientifically the best means of doing so. In the beginning basic education was a reaction to bookish education which failed to carry its own means of earning. But is education for learning or for earning? If it is for earning, the proper place for the child is in the fields or workshop. It is because the child should acquire new thought processes for the work it will ultimately do, that education

instructs and informs it. If instruction is confined to the child's craft, there may be a process of ingrowing. In any case, the mind will never be excited by new things and new ways, which is the meaning of education as of civilisation. If the child knew of American or European agriculture, it could see for itself the deficiencies in our agriculture. Similarly knowledge of social life in other countries would give the student the proper conscience in respect of untouchability, segregation of women and other social anomalies. Knowledge of foreign industrial processes would supply the impulse for change in our practices. The question then is if our education should be centered on crafts, which are obsolescent with the result that the mind lingers behind the hands, or it should inform and train the mind that hands follow new thoughts. Some fundamental thinking on the process and purpose of basic education seems necessary. If Gandhiji was alive now, he might have brought basic education up-to-date with the country's present ends and means.

Modernisation of our Crafts— A basic need.

In respect of cottage industries, the mistake is being similarly made in the direction of revivalism. We may have to help old and obsolescent methods because until they are changed, they provide employment. But to maintain these, for their own sake, is to deny science and its higher returns to a section of the population. As the International Planning Team pointed out, our crafts have to be modernised if they are not to perish in a hopeless struggle. Japan is an example of an Eastern country, which applied science to every aspect of its production. Whatever was best in the world was tailored to fit the Japanese economy. This did not denationalise Japan, politically or culturally. On the other hand it constituted Japan as a formidable rival of her western masters in every one of their grounds. It is surprising that we have so completely ignored Japan in drawing up our plans. Critics may say that we still continue so much under the influence of our previous rulers that we think our villagers are only good enough to live 200 years behind the time. If we are to measure with advanced countries in the world—and we must do this to preserve our political and economic independence—we must give our workers advanced techniques and instruments.

There may be financial or practical limitations, but we should aim at removing them, instead of becoming complacent that our own methods are best, because we had them for centuries.

The note for development should therefore be modernisation, as quickly and fully as possible. That alone will enable us to get full value for the skill and industry of our people.

Man must master Matter.

Another aim of development is to increase production, as if production were an end in itself. This is also in the British tradition that the natives may work, ignoring that men can work with good heart only when they have something to work for. The programmes of development may add more food, roads, schools, which is also in the British tradition but they have no blue-prints or targets for the living and working conditions of the people. Man is more important than matter, and if he is properly fashioned, can master matters for himself. The reverse process of creating resources in the expectation that they will reach the people ignores first that what is added is to those who have more. This is the basis of the complaint that community projects have benefited only the upper strata in the villages which knows how to use its advantages. Secondly there is the inexorable economic law that demand commands supply. And demand is latent most in those who have least. If we could formulate and assess this demand production can be accordingly tailored, in respect of those items which are necessary to allow living condition their due scope. Thirdly this formulation of requirements and the drive to achieve them will have a tangible appeal. The responses of the people will pass to a dynamic stage, man, woman and child bearing their share for achieving the pattern designed for them. Our perspective is now distorted by thinking in terms of resources and not of individuals. Let us think of the Man of 1960 and bend all our resources to achieve him. It is very important where we base our thinking, because results follow from the spirit generated even more than matter produced. If we can make people think of the good things planned for them, they will spontaneously respond even to severe demands. So far we have not sparked them because we

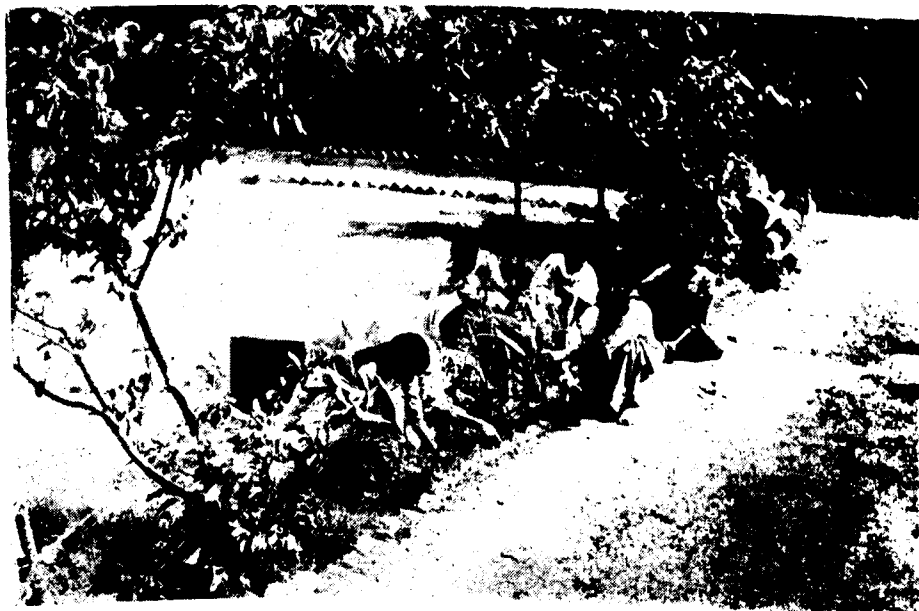
continue to conceive them as instruments of production, and not objects of development. If our Destination is Man, then our existing plans will have to proceed from him, the beginning being made, in the Spirit of Sarvodaya with the lowliest. On the blue-print of what he should have, the programme can be drawn of what he and we should do. This is a fundamental change, which will require recasting of the existing programme of work. It is a change, nonetheless, in keeping with the Socialist policy of the Government and with the necessity to galvanize the work.

Helping the Individual to achieve a new Pattern of Living.

Another distortion arises from the relative importance given to community as against individual interest. While for ideological reasons, public interests should precede private ones, for practical reasons the latter have to be advanced at least to a minimum level. It is idle to expect that individuals struggling for existence can be enthusiastic about public amenities. Men are men all over the world and will think of themselves before they can think of others. If the movement can help the individual to realise his capacities, he will himself contribute to the institutions necessary to advance the community. There has been a confusion of priorities which may account for the fact that up till March 1955

By Persuasion or Pressure?

On the question whether development should be achieved by persuasion or pressure, there is general division of opinion. Initially it was considered that the village level workers should be guides, philosophers and friends, so that the villager may become aware of a new attitude in the officials. There is a change now, and Bombay has adopted the existing revenue staff as agents for development on the theory that they have more authority and command more respect. It is no doubt ideal that development should not be forced



Girls working in the garden in a youth camp organised by the Bharath Sevak Samaj, in co-operation with the Community Project Administration.



Shri Gulzarilal Nanda, Union Minister for Planning, visited the site of the Shahdara Bund on June 21 when he saw a mile-long embankment constructed by members of the Students' Camp conducted by the Delhi State Bharath Sevak Samaj.

but this requires first, evangelism in officials and second, discernment in the people. A village level worker, in spite of the care taken in his selection and training is rarely an apostle, whom the people can trust and follow. He may know something of his own work and of the village conditions but he rarely has the capacity to understand and undertake conversion of hardened minds to new ways. Even if the good is at the door, he cannot persuade the people to see it. Should he then push them, when they are hesitant and reluctant? Bombay thinks authority is necessary. There is another school, which thinks that in the social and economic field, the interests of the community are as important as in the field of criminal and civil laws, making authority necessary for due enforcement. The man who produces only half of what is possible starves the country. The man who does not provide light and space in his house, destroys the health and outlook of his family. The man who does not work is a parasite. Could these and other men be allowed freedom to injure others? Democracy implies rights as well as responsibilities. Nonetheless, it may be difficult to introduce a punitive regime in social and economic spheres. It is better to introduce a system of rewards for those who accept discipline. In the end, such rewards will pressure the whole body. If they fail, codes of economic and social procedures can be introduced.

Concentration on Younger Generation

An important issue is to find out the most susceptible individuals and groups in the village to be vehicles of change. There is some disappointment that village leaders are not available, except for a little lip service. In spite of camps and tours, leaders have not themselves been converted from preaching to practice. They are in no way examples of the new men we wish to produce. Is this because leaders are chosen because of their importance and not because of their capacity. It is certainly true that important persons can do more than mere enthusiasts, but few important people are willing to learn new things. In fact most leaders own their position because they stand for old values. Generally they are old and of a class which cannot and will not agree to learn anything new. Leaders have therefore to be found in the younger generation. But these will however have no following unless the whole body of the young men and women are converted at the same time. It has to be remembered that dictators in Europe concentrated on youth organisations for realisation of their ideas. They believed even in teaching and training children in their new ideologies. It is not easy, all the same, to give prominence to the younger generation in the patriarchal order prevailing in our village. The attack has to be indirect through the youth

clubs, volunteer organisations, which have to be financially helped and administratively encouraged. The old may be placated to be neutral, while the younger generation marches to the new positions.

Values The True, Good and the Beautiful.

The prospective for development must pay attention to values. Religion as a force is decaying in our villages, even if it were wise to use it. Nationalism was effective when there were foreign opponents. We have therefore to fall back on philosophical values, basic to all religions, are truth, goodness and beauty. The villager does possess the quality of truth, but though he will not tell lies to others, he tells several to himself. This is the result of the mutilated life forced on him by history which made self-deception necessary to explain what was missing. The task of disabusing the villager is not an easy one. A beginning may be made by showing the villager to himself, as he is. Dramas and films can do this but the tendency has been, particularly in films, to justify the ways of the villager. It will also be useful to show to the villager what he could be. In this connection pictures of the life of villagers in other countries may reduce some of the present complacency.

The Cult of Beauty, a creative Ideal.

In respect of goodness, there is a substantial measure, arising from the common adversity in the village for centuries. Beauty is conspicuously absent. Houses, public and private, have neither form, tidiness, colour, and are completely out of lineage with the architecture of the past, surviving in temples and monuments. Men's clothes are only a concession to modesty though women occasionally show a taste for colour. Speech, songs and dance are arid of finer suggestions. It is not that utility takes the place of beauty. It is creativeness which is missing. The loss is profound because it is only by appreciation of beauty that mental powers grow, and civilisations arise. The cult of beauty has therefore to be introduced, first in schools, where teachers may be charged with keeping the school and students as attractive as possible. The idea that appearances do not matter has to be sternly discouraged. Beauty may be introduced



Villagers offering "Shramadan" in a village for the construction of an embankment. The Second Plan provides large opportunities for co-operative action.

in houses, even by subsidies for certain essential items. In the village itself, there should be plans for removing ugliness. In the Chingleput district creepers, which cattle do not eat, were grown to cover the roofs with flowers. Roads were cleared of vegetation on the sides. House frontages were improved. All this was achieved, because a few articles for the decoration of the interior of the houses were awarded to those who were most responsive. Whatever is done, the least will be to recognise beauty as a necessary value in the future we wish to build.

Introduction of new impulses in Village Life.

Another dispute about priorities is between men and women. So far no specific attention has been paid to women. Even when women workers are engaged, they have not been able to make any noticeable impression on their own sex. The fact however remains that unless the help of women in the village is enlisted, there will be little change in the way of life and even in the way of work. The woman rules the home and man remains subject to her prejudices even outside. The isolated woman contributes her ignorance to her free man's arrogance. This and other paradoxes in the social organisation of the village deserve careful and patient study. When so much research is being done, no one has so far enquired into the psychology of village women. What interests them, how and why, should help plans to win them to the side of progress. Judged by women outside the villages, the basic female instinct is to attract the opposite sex. Since village women have no choice in their marriage and have little freedom thereafter, they lack interest in men. But they remain interested in their husbands and children and would do much for them. Schemes therefore which enable women to reflect credit on their men may have some appeal. Can we, for instance, make it a rule that public office will be confined to men, whose women do social service? The compulsion this implies would draw many women out of their houses even as a service to their men. A second instinct in women is to outshine each other. Conditions however have to be created in which women may enter the field of competition. For a beginning two such fields can be organised, social service, and social recreation service has a natural appeal to women, and

it is possible to band women together to help in illness, poverty and other forms of distress. In respect of recreation, dances and songs attract women of all classes. In the Chingliput district, a beginning was made to collect women at performances by children. Gradually community singing and folk dancing followed. There was both co-operation and competition and always there was full attendance. From this stage it is possible to educate women in their own interests. The work is deficit and slow but if it becomes a definite item of developmental activity, a new impulse will be introduced in village life. Women are more realistic than men, and can become more effective agents for change if only they can be informed and inducted in the movement.

*Basis of Development—Prosperity
not Austerity.*

The last question is whether development should be based on austerity or prosperity of the people. Austerity as a pattern has been imposed on our people by religion and history but there is a difference between austerity and privation. When the people live almost according to nature, in houses where they huddle on the floor, they are missing not luxuries but necessities and are starved to the point of impoverishment of both body and mind. To offer austerity to these people is like offering water to drowning men. But the greatest objection to austerity is that it is the enemy of prosperity. In civilised communities, it is the demand of every one for the production of others that enriches the economies. The artisans in the villages, the factories and offices in the town depend for their expansion, on the increasing demand of the masses. We cannot expect to carry out the plan for higher employment and income, if the general mass of the people do not change the pattern of their consumption. While economists will accept this position,

they will inquire how the finance can be found for a higher standard of living. They proceed on the basis that money creates work and not the other way round. They ignore that even when people were engaged in building Delhi and Agra for the Moughals, Lucknow and Vijayanagaram for their rulers, they were on the highest tide of prosperity. It is the work that these projects gave to a section of the people, that excited the whole population to a new level of endeavour to produce food, clothes and other items. Similarly the recent war which absorbed a few lakhs in fighting, drew millions to the task of feeding and clothing them. Work is the cause of wealth, a simple fact in the economies of undeveloped countries. Russia and China have proved this, and have transformed themselves without money in the ordinary sense. We are now tending to accept that money can be created for productive purposes. We have however still to realise that consumption should be maintained correspondingly, by the same money, that only so the economic circle can spin wider and higher. Production and prosperity should go hand in hand, particularly prosperity of the lowliest, as economically they not only are the largest section of the population, but also the most deficient of items that support the production drive. This is Sarvodaya in its true sense, prosperity of the whole people by the capitalisation of their labour, and satisfaction of their requirements.

There are many heresies in the prospective I have proposed for development. Their logic has been stated, their proof awaits actual experimentation. It is a complex task to move millions who have stagnated for centuries. Every idea therefore must be welcomed for trial. Only then we shall have a body of rules capable of transforming our villages to new social, economic and aesthetic values.

Memoirs of the Agriculture Department

The publication contains detailed information on the work done by the Madras Agricultural Department from its inception in all fields of activity. The sale price has been reduced from Rs. 36-10-0 to Rs. 22-8-0 per copy.

The copies can be had from :

**The Superintendent, Government Press,
Publication Branch, Mount Road, Madras-2.**

The Role of Co-operative Banks in Rural Economy

Schemes for a network of rural banks to provide credit and marketing facilities to the farmers.

A second large-sized co-operative society in Madurantakam Taluk in Chingleput District at Cheyyur, styled as Cheyyur Co-operative Agricultural Bank, was inaugurated recently by Sri A. B. Shetty, Minister for Co-operation. Rao Bahadur M. Vedachalam Mudaliar, President of the Kancheepuram Co-operative Central Bank, presided over the function. Sri A. Palaniappa Mudaliar, Registrar of Co-operative Societies, Madras, in his speech observed that the large-sized societies in Madras State were called Co-operative Agricultural Banks, that 12 such societies had been organised in the pilot areas and that these banks were intended to serve the bulk of the credit needs of the cultivators whether they own lands or cultivate the lands as tenants. Sri A. B. Shetty, in the course of his inaugural speech dealt at length with the various aspects of the Co-operative movement in the State, especially the work done in the rural parts. The Minister said—

The Need for large-sized Societies

"As you are all aware, the village credit society is the base of the Co-operative credit structure. There are at present 10,500 credit societies in our State. Nearly one-third of these societies have worked at a loss. If these village societies have not succeeded better in catering to the needs of the agriculturists, it is because of their small area, limited transactions, lack of paid staff to attend to their day-to-day administration, and such other causes. To remedy the present deficiencies and place the village co-operatives on a sound footing, it has been suggested by the Rural Credit Survey Committee that the societies should be reorganised into large-sized primary credit societies. Steps are accordingly being taken to establish large-sized societies

by the reorganisation and amalgamation of the existing small societies. These societies have to cover a group of five to ten contiguous villages dealing with a large clientele and have sufficiently large transactions. Such societies cannot for obvious reasons be based on unlimited liability. They will accordingly function on guaranteed liability, the liability of the members being restricted to a multiple of their share capital. These societies will not merely supply credit but also supply domestic and other agricultural requisites of their produce as their agents. They will issue short-term loans for cultivation purposes as well as medium-term loans for purposes auxiliary to agriculture. The loans will

be issued on the security of anticipated crops and on the pledge of agricultural produce, deposits, jewels, etc. This new feature in the working of these institutions will make co-operative credit available to the small farmers and even to tenant farmers and thus effectively aid agricultural production.

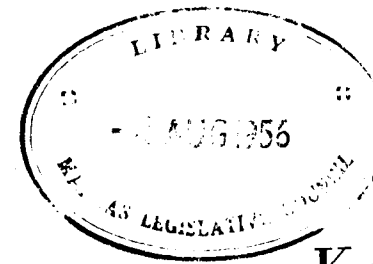
Eighty Societies per year

In the Second Five-Year Plan, 12,000 large-sized societies are proposed to be established in the country and Madras will have 400 societies at the rate of 80 societies per year. In the Chingleput District, seven such societies are to be formed

(Continued on page 27)



The Minister for Co-operation inaugurating the Cheyyur Rural Bank.



Kundah Hydro-Electric Scheme

Estimated Cost: Rs. 35.44 crores; Total Installed Capacity: 180,000 K.W.;
To be completed in four years.

The Kundah Hydro-Electric Scheme which was inaugurated by Sri C. D. Deshmukh few weeks back is the biggest of the new Power Schemes of the Second Plan of the Madras State. This is also the biggest of the Schemes so far undertaken by the Madras State and when completed will add about 180,000 KW to the State Grid.

The Kundah Hydro Electric Project in the Nilgiris is one of the projects mentioned by Mr. J. W. Meares (Chief Engineer for Hydro-Electric Survey of India) in his "Preliminary Report on the Water Power Resources of India" published in 1919. In that report the power envisaged was only about 15 M.W. utilising a head of 3,000 feet. The above estimate for power is a very very low figure and the scope of the scheme as now enlarged by the addition of flow from neighbouring basins is intended to generate a firm power of 129 M.W. with an installed capacity of 180 M.W. in the first two stages.

The history of the scheme may be traced from about 1921 when a concession for developing power from the Kundah falls was given to Messrs. Tatas. No attempts were however made by them to develop power and the concession appears to have been subsequently withdrawn. The Pykara, Mettur and Papanasam Hydro-Electric Schemes were the first three Hydro-Electric Schemes to be developed by the Madras State and these came into commission in 1932, 1936 and 1944, respectively.

During the war years, no progress could be made as new schemes and after the end of World War II, a number of new schemes were sanctioned. Due to the post-war developments and consequent increase in power demand and the acute shortage of power experienced in the Madras Grid, the

necessity for going in for new power resources was keenly felt even after the commissioning of the extensive schemes covered by the post-war plan. The Madras Electricity Department, therefore, undertook in 1947 a State-wide study of Hydro-Electric Resources of the Madras State under which the investigation of Periyar and Kundah were given the top priority. Moyar Hydro Electric Scheme, Pykara III Stage, Madurai Thermal Scheme, Madras Plant extensions first two stages, etc., were the important schemes commissioned in the first five-year plan but even so the demand for power has been out-stripping the generation. The Periyar Hydro-Electric Scheme was taken up for construction in February 1955 and the Kundah Hydro-Electric Scheme is being inaugurated today.

The Kundah Basin is situated to the South East of the Pykara Basin in the Nilgiris. Two streams, the Avalanche and the Emerald rising amidst the group of high peaks, Devabetta, Karaikadu, Koulumbetta and Porthimund, all over 8,000 feet in altitude, combine to form the Kundah river. After the confluence, the river takes a south-easterly course and is joined by the Sillahalla near Mondanai at an altitude of 6,000 feet. The Kundah has then a fall of about 200 feet and runs in a cascade for about 2,000 feet to reach the bridge near Kundah village. Here it is joined by the Kararhalla stream on its right at an altitude of about 5,280 feet. Below the bridge the river runs in cascades till it reaches a level of 2,100 feet about M.S.L. where it is joined by the Pegumbahalla stream. Beyond that confluence it runs in rapids for about a mile and a half and later, in an easy gradient, down to its junction with the Bhavani at an altitude 1,340 feet.

It is proposed to develop the catchment of the Kundah Basin in three power stations and in four stages. Only the first two stages involving the construction of the power houses have been investigated in detail and will be taken up simultaneously during the plan period. In the first stage, it is proposed to build three dams (including the forebay dam), two power tunnels, two sets of penstocks and two power stations. Each of the two dams across the Avalanche and the Emerald rivers will be nearly 200 feet in height and will be of stone masonry in cement mortar. Their lengths at top will be 1,200 feet and 1,060 feet, respectively.

The forebay dam near Kundapalam will be about 100 feet in height and 490 feet in length at the top. The tunnel Nos. 1 and 2 will be about 14,000 feet and 12,000 feet, respectively, with net diameter 10 feet and 10 feet 9 inches. They will be lined with cement concrete throughout.

In the first stage, only two penstocks will be laid with space provision for the third in Power House 1. The penstocks will be of 5 feet 3 inches internal diameter at the top tapering to 4 feet 6 inches diameter at the Power House end and is designed for a peak discharge of 250 cusecs. Each penstock will feed its own machine on unit system.

The first power station will be located on the right bank of Kundah very near where we have assembled today and the second power station on the left bank of Pegumbahalla about a mile and half above its confluence with the Kundah. Initially, there will be two generating sets of 20 M.W. coupled to 2 units of 28750 H.P. turbines with a net head of 1,135 feet at Power House 1.

The Power House No. 2 will have 4 penstocks of 5,500 feet long designed for a peak discharge of 200 cusecs each.

The Power House will have four units of 50,000 H.P. turbines each directly coupled to 35,000 K.W. 11 K.V. Generator with a net head of 2,340 feet. This station will have provision for adding one more units at a later stage.

In the second stage, which will closely follow stage 1, the flow from the 12.8 square miles of Upper Bhavani catchment will be diverted into the Avalanche reservoir by the construction of a dam and tunnel through the dividing ridge. A fourth generating set of 35 M.W. with a penstock will be added to power house 2. Thus at the end of the second stage the total installed capacity in the two power houses will be 180 M.W.

The scheme as now sanctioned covers the first and second stages only.

In the third stage the flows from the East and West Varahapallam streams will also be utilised by the construction of necessary dams and tunnels. The flows from the Western catchments will also be diverted into the Porthimund reservoir and thence into the Emerald Valley by a tunnel. The penstock and generating capacities in the two power stations will also be increased suitably.

In the fourth stage the tail race waters of power house No. 2 in combination with the free flow of Pegumbahalla will be utilised in a third power house which is proposed to be located underground at about level 1,300 feet. The gross head at this power station will be about 1,555 feet. Stages three and four require further detailed investigations which will be taken up in due course.

On the whole, it is proposed to utilise a gross head of nearly 5,200 feet in the three power stations in the ultimate stage of development.

The power generated at Kundah will be fed into the Madras Grid through a system of 110 K.V., 66 K.V. and 33 K.V. lines. The following lines will be erected initially :—

- (1) Singarappet-Villivakkam D.C. line, 124 miles.
- (2) Kundah Power House 2 to Salem D.C. line, 110 miles.
- (3) Kundah Power House 2 to Coimbatore D.C. line, 25 miles.
- (4) Salem-Singarappet D.C. line, 56 miles.

- (5) Kundah Power House 2—Kundah Power House 1 D.C. line, 5 miles.

In addition to the above, provision has been made for 85 miles of 110 K.V. lines, 158 miles of 66 K.V. lines and 200 miles of 33 K.V. lines to be erected in future as and when necessary.

As per the programme, it is proposed to complete stages 1 and 2 in 4 years time. The whole scheme is expected to cost about Rs. 3,544.01 lakhs including transmission lines and is expected to yield a net return of 4 per cent from the tenth year of operation.

During the visit of the Canadian Administrator of the Colombo Plan, Mr. R. G. Nickcarell, to India in February 1955, the Government of India among other things suggested the possibility of providing the power house requirements of the Kundah Scheme under the aid. In a conference held with the Madras Government representatives, the technical aspects of the scheme were explained by the Chief Engineer. As a result of the Canadian Administrator's keen interest, the Canadian Government deputed during November 1955 Mr. I. Stairs and Mr. J. K. Sexton of Messrs. Montreal Engineering Company, consultants to the Canadian Government. The consultants visited the project site, and had discussions with the Engineers of the Department. As a result of their favourable recommendation that the scheme is technically sound, a deputation consisting of Sri C. V. Narasimham, Joint Secretary, Ministry of Finance, Department of Economics Affairs and Sri V. P. Appadurai, Chief Engineer for Electricity, Government of Madras, went to Canada in May 1956 for further discussions and finalising the agreements. The discussions were successfully concluded and the Canadian Government have since agreed to give aid to the tune of 20 million (about Rs. 10 crores) by way of materials.

The Canadian Government will supply the following for civil works :—

- (i) Gates, screens, valves, etc., for the dams.
- (ii) Low pressure pipe line, Penstock meter and valves.
- (iii) Steel structurals and accessories for buildings for power house I and II.

(iv) Construction equipment for the civil works.

The power house equipments to be supplied by the Canadian Government will be as follows :—

- (i) Turbines, inlet valves and accessories.
- (ii) Generators, exciters, voltage regulators and accessories.
- (iii) Switchgear.
- (iv) Power House auxiliaries including fire protection equipments.
- (v) Step up transformers and accessories.
- (vi) Outdoor switchgear and structures.
- (vii) Power and control cables.
- (viii) Handling equipments, cranes and accessories. The Canadian Government will also supply the sub-station equipments and transmission line equipments subject to the total aid limited to 20 million dollars.

Now that the scheme receives assistance from the Canadian Government by way of materials and equipments it is expected, that the scheme could be pushed through and completed earlier. The first unit is expected to be commissioned by 1959 and the entire plants by 1960. The construction of the Emerald and Avalanche Dams are expected to be completed by 1961.

Facts and Figures

India produced Rs. 102 crores worth of minerals in 1954.

During 1955-56, 164 licences were issued for setting up new industrial undertakings as against 110 during the previous year.

India's exports increased from Rs. 563 crores in 1954 to Rs. 604 crores in 1955.

Sugar machinery of the value of about Rs. 19,03,500 was manufactured in India during 1955.

The Government of India have sanctioned Rs. 42.63 lakhs for road development schemes in Andhra, Bombay, Tripura, and NEFA.

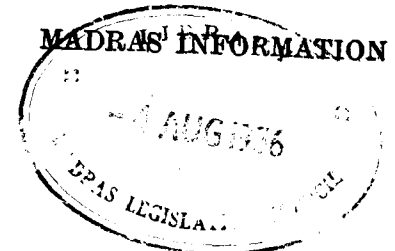


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An Information Centre was opened in Madras City by Dr. B. V. Keskar, Union Minister for Information and Broadcasting, on July 3, 1956. Pictures show : Sri C. Subramania Minister for Information, addressing the audience, the musical performance by A.I.R. Artists Dr. Keskar inaugurating the Centre by cutting the ribbon and delivering the inaugural speech.



Sri C. D. Deshmukh inaugurated the gigantic Kundah Hydro-Electric Project near Ootacamund recently. The Project contemplates in the Second Five-Year Plan period, installation of two units, each of 20,000 KW. in Power House No. 1 and four units, each of 35,000 KW. in Power House No. 2, the total installed capacity being 180,000 KW. The cost of the Project has been estimated at Rs. 35.44 crores. Pictures: (top left) A view of the site of the No. 1 Power House; (top right) Emerald Dam site; (centre left) the site of the No. 1 Power House; (centre right) The Governor, Ministers Sri Deshmukh inaugurating the Scheme; (bottom left) No. 2 Power House site; (bottom right) Chief Engineer explaining the model scheme to the distinguished visitors.





Vanamahotsava—Retrospect and Prospect

Details from a Landscape in Green

Six years of successful tree-planting festival, which resulted in the changing of the country's face to an appreciable extent, has exploded the criticism of those scoffers and cynics of the earlier days who thought that Vanamahotsava was just another stunt and decried that it would bring nothing beneficial. The record of the last six years of successive tree-planting campaign belied their doleful prophecies. Vanamahotsava has come to stay. It had received warm support from persons in authority in all States; it has been blessed by intelligentsia who have a true understanding of the value of tree-growth in our life. It has been welcomed by more sections of the people. No wonder, it cannot be otherwise; for, "our tradition is

intimately linked with forests . . . It is in the primeval forests and in the shadow of giant bills that metaphysics was born, and the spirit of enquiry into the value of things saw the light of the day, the great puranas and Upanishads were written in the sylvan setting provided by forest giants, resting on the crest of everlasting hills."

Organisation of unlimited kindness.
It can be rightly observed that India is a nation of tree worshippers, though it was never a superstition with us, but a healthy habit, cultivated in the process of day-to-day life. In the ultimate analysis, human beings at all times and everywhere have to depend on the flora for their very existence. As Buddha said, "The forest is a peculiar

organisation of unlimited kindness and benevolence that makes no demands for its sustenance and extends generously the product of its life activity; it affords protection to all beings, offering shade even to the axeman who destroys it."

Vanamahotsava was inaugurated in 1950, with the object of arousing mass consciousness regarding the value of trees and tree crops in the general economy of the country. The normal planting activities of the Forest Department do not fall within the purview of Vanamahotsava. Progress is assessed in terms of number of plants put out and the number of survivals at the end of the year.

According to figures furnished by the States, the number of trees planted in the country from the inception of Vanamahotsava and the number that survived at the end of the year are as follows:

- 1950—
Number planted—44,316,000.
Number survived—17,017,000.
Note.—Figures not received from Assam, Hyderabad and PEPSU.
- 1951—
Number planted—34,812,000.
Number survived—17,698,600.
Note.—Figures not received from Assam, Orissa, Hyderabad, Rajasthan, Coorg, Cutch and Tripura.
- 1952—
Number planted—41,313,000.
Number survived—22,552,000.
Note.—Figures not received from Orissa, Hyderabad, Mysore, Coorg and Manipur.
- 1953—
Number planted—23,852,000.
Number survived—9,578,000.
Note.—Reports not received from Bihar, Orissa, Uttar Pradesh, West Bengal, Hyderabad, Mysore, Rajasthan, Saurashtra and Himachal Pradesh.



Sri S. S. Amaswami, Minister for Local Administration, inaugurated the Vanamahotsava celebrations in the City.



The Minister and Sri V. Ramanatha Iyer, Mayor of Madras, planting tree saplings near the War Memorial.



The President, Dr. Rajendra Prasad, planting a mango sapling at Rashtrapati Nilayam (Hyderabad) in celebration of the Vanamahotsava.

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Particulars for subsequent years will become available in due course.

Awards of Central Vanamahotsava Shields.

To foster the spirit of tree planting, four trophies are awarded in the form of all-India shields.

They are presented to the winners at the Convocation of the Forest Colleges at Dehra Dun at the end of March each year. They are—

I. *The Rajendra Shield*.—Awarded to the District adjudged to have done the best work in the year—

- 1950—South Kanara (Madras).
- 1951—Meerut (Uttar Pradesh).
- 1952—Meerut (Uttar Pradesh).
- 1953—Guna (Madhya Pradesh).

II. *The Jawahar Shield*.—Awarded to the village adjudged to have done the best work in the year—

- 1950—Sethimada Mangaua (Mysore).
- 1951—Periyaram (Madras).
- 1952—Ullal (Madras).
- 1953—Bathkundu (Midnapore District).

III. *The Sardar Patel Shield*.—Awarded to the institution adjudged to have done the best work in the year—

- 1950—Multi-purpose Co-operative Society, Midnapore District (West Bengal).
- 1951—Military Farm, Srinagar (Jammu and Kashmir).

1952—Lakshya Farm, Midnapore District (West Bengal).

1953—Simla Municipality (Punjab).

IV. *The Munshi Shield*.—Awarded to the University adjudged to have done the best work in the year—

- 1950—Viswa-Bharathi University (Bengal).
- 1951—Andhra University (Andhra).
- 1952—Andhra University (Andhra).
- 1953—Annamalai University (Madras).



Sri W. R. S. Sathianathan, Chief Secretary to the Government of Madras, addressing the meeting of the Secretariat Association held in connection with the Service Week Celebrations.

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Roads in Malabar District

A major portion of Malabar is mountainous and there is concentration of population in the plains. The proposal is to have a road to each village and every village will be served by a road when the Five-Year Plan is implemented fully.

SRI K. K. NAMBIAR, Chief Engineer (Highways).

Malabar district situated at the west of Madras State stretches along the shores of the Arabian Sea for a distance of 150 miles with its breadth varying from less than five miles in the extreme south to upwards of 70 miles in the middle where Palghat taluk penetrates the line of the ghats. Bounded on the north by the South Kanara district and on the south by the Cochin State, the district has on its eastern borders the western ghats separating it from Coorg, the Nilgiris and Coimbatore districts. The area of the district is 5,844 square miles and its population is 4,758,342 as per 1951 census. The district is divided into nine taluks, viz., Chirakkal, Kottayam, Kurumbanad, Calicut, Wynad, Ernad, Walluvanad, Ponnani and Palghat.

Western Ghats.

The chief glory of Malabar is the long array of the western ghats which maintain an average elevation of 5,000 feet but occasionally soar up into peaks over 8,000 feet. From the extreme north of the district, they run parallel with the coast at a distance of about 20 miles as far as Vaval Mala or Camel's hump abreast of Calicut and then they turn sharply eastward.

The western ghats famous for its forest wealth runs along the eastern boundary of the district except for the Palghat gap one of the most striking features in the country a complete opening of about 25 miles wide. On either side of this gap tower the giant Nilgiris and Anamalais, overtopping the chain of western ghats by several thousand feet, while through the gap the south-west monsoon carry the pleasant showers to the thirsty plains of Coimbatore. Again it is through this gap the north-east wind blows.

Forest.

Malabar being a hilly district, private and reserved forests including waste and communal lands containing trees and shrubs covers an area of 2,958 square miles consisting of 535 square miles of reserved forests and 1,750 square miles of private forests. The area of private forests actually wooded is about 418.5 square miles and the reserved forests consist of deciduous sub-tropical, evergreen tropical rain forests and deciduous monsoon forests.

Soils.

Except for a narrow belt of arenaceous soil on the shores of the coastal taluks, the soils of plains belong to the red ferruginous series composed of a mixture of clay and river sand. They are classified as red clay, red loam and red sand. Except in Ponnani taluk red loam is the prevailing soil representing about 85 per cent of the total area of the plains. Clay preponderates only in a few portions inundated yearly during the monsoon and in beds of shallow lakes and lagoon of Ponnani. The light sandy soils of the coast are alluvial deposits of sand slightly impregnated with silt found in shores of backwaters and near mouths of the rivers. Laterite, a form of decomposed gneiss used for building and road works is freely available all over the district.

Climate and rainfall.

Generally extremes of heat and cold are unknown in the district. The average maximum temperature is only around 91° in May and the minimum around 70° in December. The average percentage of humidity in the atmosphere is exceedingly high, being 82.5 per cent. The average rainfall is 12 inches with a maximum of

300 inches which is exceeded in the State only in South Kanara district.

Monsoon.

The south-west monsoon breaks early in June with fierce squalls and continuous spells of rain. After the first violent burst, persistent rains set in. The north-east monsoon is in October and is intermittent and of short duration.

Rivers and backwaters.

But for the three rivers, viz., Rampur, Kabani and Bhavani which join Cauvery as tributaries, the rest flow down westward to the Arabian Sea. Many of these rivers flow into the coastal backwaters, which are linked up by artificial canals forming important means of communication. During the south-west monsoon the rivers are in floods for about seven months in a year. The important rivers flowing into the Arabian Sea from north to south are the Valapattanam, Anjarakandi, Mahe, Kottah, Chaliar or Beypore, the Kadalundi and the Ponnani or the Bharathapuzha. Valapattanam river rising in the slopes of Periamala in the north-west corner of the Wynad, joined before Iritty by two feeder rivers, probably discharges the greatest volume of water into the sea, at Baliapattam. Timber if floated down the river from the ghat crests and boats laden with salt and salt-fish ascend at all times of the years as far as Irikkur to return with rich cargoes of pepper. The mouth of the river which forms into a backwater into which the Kuppam river falls is connected to crabs and arms of the Mount Delhi river by the Sultan's canal. The other rivers in Chirakkal taluk are the Kottoor river, the Irikkur, the Vannathi, the Pazhayangadi, the Perumbai, the Kuttikkol and the Kavvayi.

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The Anjarakandi and the Mahe rivers draining Kottayam and part of Kurumbranad taluks are navigable only to a few miles from their mouths. The Kottah river flowing in the centre of Kurumbranad taluk is navigable for a long distance is also connected with the inland waterways. The Koropuzha is another river flowing in the southern portion of Kurumbranad aluk.

The important rivers in Wynaad aluk are the Panamarampuzha, the Manantoddy river and the Bavali.

The rivers in Kozhikode taluk are the Kallai, the Elathur river, the Irttulipuzha, Irungipuzha, the Mukkam river and the Beypore river. The Beypore river, being the most important of all these, consists of three branches, viz., the Karumpuzha, the Ponpuzha and the Chalayar and joins the sea at Beypore, 6 miles south of Kozhikode. This river is navigable as far as Mambad village in the interior of Ernad taluk. Large quantities of timber are floated down from the forest to Beypore and thence through the Canolly canals to Kallai close to Calicut Bazaar one of the greatest timber markets of India.

Ponnani river is also known as Bharathapuzha traversing the taluks of Palghat and Ponnani, joins the sea at Ponnani. The Ponnani canal with the backwater of Valiankode which again communicate with those further south is navigable from Tirur town to Trivandrum a distance of over 200 miles. The other rivers in Walluvanad taluk are the Bhavani, the Siruvani, the Kadalundi, the Olipuzha and the Tuthapuzha.

The rivers in Palghat taluk are the Kalpathipuzha, the Yakkarapuzha and the Gayatripuzha.

Thus the rivers and backwaters of the district linked up with some artificial canals serve as means of communication to the many parts in the hilly interior and in the slushy sea-coast where road formation is very difficult and expensive.

Early history of roads.

Tippu Sultan was the pioneer of the roads in the district. Before his time, wheeled traffic was unknown and even track bullocks were not used until comparatively in recent times. "No one travels in these parts" wrote Ibn

Batuta in the 14th Century. "Upon beasts of burden; nor is there any horse found except with the King. When however any merchant had to buy or sell goods, they are carried upon the back of men who are always ready to do so for hire." Narrow footpaths running at random through paddy flats without regard to any convenience of travelling took the place of Highways and it was not until Tippu brought his artillery into Malabar that the need of proper roads was felt. He projected and in great part finished an extensive chain of roads that connected all the principal places of Malabar and pervaded the wildest part of the country. He invaded the country both from Mysore by way of the passes through the western ghats and many of the roads converged upon the Tamarasseri and other passes into Wynaad. The Tamarasseri ghat, up to which a steep gun road ran was the meeting place of no less than four roads. Two led by different route from Malapuram and two from Calicut are following more or less the line of the present Mysore road and the other passing through Feroke and Chanthamangalam. The coast road from Beypore to Cranganore (via) Tamur-Chettuvayi was another gun road.

In a hilly district like Malabar, blessed with heavy rainfall, roads require unremitting attention. Tippu's hastily improvised roads which although were cleverly tracked so as to keep on the watersheds and avoid paddy fields were neither wellmade nor properly drained and they soon fell into disrepair. In 1796 a military engineer was deputed to report on the state of the gun roads. The Collector of the district was encouraged to pay special attention to the roads and the proceeds of ferry farms and magisterial fines were utilized for the maintenance of roads and bridges. In North Malabar the sepoy rebellion gave a great impulse to road-making and the interior of Kottayam and Kurumbranad taluks were opened up by Military roads which for the most part still exist. The most important roads then were the coast road and those from Palghat to Kuttiadi (via) Tamarasseri from Kuttiadi to Calicut and from Calicut to Tamarasseri.

During the long period of stagnation, communication was in a state of suspended animation and the roads rapidly deteriorated till 1948. Mr. Canolly reported that there were only two

carriage roads in Malabar one from the borders of Coimbatore to the sea and one by the Peria pass from the Mysore Frontier to Cannanore and Tellicherry. The coast road was also generally available though in parts very difficult for carts and there were important bullock tracks up the Perumbadi, Kuttiadi and Tamarasseri ghats. But of the vast number of secondary roads intersecting the district few were useful for wheeled traffic. The deterioration of roads in this period is hardly surprising for in 1831 Government formally renounced all attempts at maintaining them in good order. The "Maramat" department which had charge of them was devoid of professional skill and in fact the Revenue department under another name had only the Military Engineer of Malabar and South Kanara and subsequently the Civil Engineer appointed for those districts to look to for guidance. Under the Collector, the Tahsildars assisted by taluk magistrates were the Executive Officers and for a time they were entrusted even with the preparation of estimates. The average expenditure for 25 years from 1826 to 1850 was only Rs. 18,000 against Rs. 30,000 net proceeds from ferries. But in 1810 and 1830 some companies of the Madras Pioneers worked in the district and among others constructed the road from Cannanore to Nedumpey (via) Kottayam and Kuthuparamba and the Peria ghat road. But they were officered by men who not only had any knowledge of Engineering but did not understand even surveying and levelling. The construction of the road from Cannanore to Coorg which was sanctioned in 1848 and completed in three years later was the chief benefit conferred on Malabar by the road department created in 1845 for the maintenance of trunk roads in the Presidency.

The last one century has witnessed an immense extension of roads and great changes in their relative importance. With the advent of railway in Malabar the Walayar-Ponnani road ceased to be the main artery of traffic between the Carnatic and Kerala and with the extension of line to Mangalore the coast road from Calicut to Cannanore had lost much of its former importance. The great highways of the district are the ghat roads, which tap the planting districts of Coorg and Malabar-Wynaad and convey to the

Sea at Tellicherry and Calicut heavy consignments of coffee, pepper and tea. The Calicut-Wynaad road which a century ago resembled a staircase formed of huge blocks of stones with very steep gradients was traced afresh in 1858 and the new roads formed between 1860 and 1870 by the Madras Sappers and Miners. In 1846 the total length of roads in Malabar was only 138 miles, whereas at present the total length of roads is 2,206 miles.

The Highways Department was formed on 1st April 1946 and for administrative facilities, the district is divided into two divisions, each under a Divisional Engineer with headquarters at Calicut and Palghat. The jurisdiction of Malabar North Division extends over five revenue taluks, viz., Kozhikode, Kurumbranad, Kottayam, Chirakkal and Wynaad and Malabar South Division has for its territorial jurisdiction on the four revenue taluks of Ernad, Ponnani, Walluvanad and Palghat. Kozhikode, the District headquarters, is the headquarters of the North Division and Palghat, the taluk headquarters of Palghat is the headquarters of the South Division. There are two regular subdivisions and nine sections in North Division. The subdivision headquarters are at Kozhikode and Cannanore. The section headquarters are at Kozhikode, Badagara, Lakkidi, Kalpetta, Manantoddy, Tellicherry, Cannanore and Tali-paramba. There are three regular subdivisions and 11 sections in the South Division. The subdivision headquarters are at Manjeri, Shoranur and Palghat. The section headquarters are at Malappuram, Manjeri, Nilambur, Perintalmanna, Tirur, Pattambi, Chowghat, Ottapalam, Palghat North, Palghat South and Alathur.

Before the formation of the Highways Department most of the roads were under the control of the Malabar District Board. More than 400 miles of roads including trunk roads and important district roads were taken over by Government and they were under the control of the West Coast Road Division during 1943-46. When the Highways Department was formed in 1946 the roads were reclassified as (i) National Highways, (ii) Provincial Highways (State Highways), (iii) Major District Roads, (iv) Other district roads, and (v) Village roads.

The National Highways are the main roads connecting the States within

the Indian Union and these roads are under the control of the respective State Governments. The maintenance cost of such roads are being met by the Union Government. Provincial Highways are the main roads within the State connecting inter-districts and the neighbouring States. Major District Roads are important roads within the districts. Other District Roads are less important roads within the district connecting village roads and important villages to main roads. Village roads are small roads connecting hamlets and villages with the main roads.

The roads now existing in Malabar District under the different categories are detailed below:—

	Government Roads.	District Board Roads.	
National Highways.	42	..	
Provincial Highways.	338	..	
Major District roads.	585	242	
Other District roads.	20	375	
Village roads	..	391	
	985	1008	

Thus there are 1,993 miles of roads under the control of the Highways Department. In addition to this there are 16 miles of roads under the control of the Public Works Department and 197 miles of roads under that of the municipalities, making the total to 2,206 miles.

The following are the particulars of roads length and expenditure incurred by the Government and district board for the various years since 1949-50.

	Total length.	Total expenditure.	Maintenance cost per mile.
		LAKHS.	RS.
Government Roads—			
1949-50	945	23.82	2,521
1950-51	945	27.01	2,858
1951-52	961	27.94	2,908
1952-53	965	29.62	3,070
1953-54	965	28.84	2,988
1954-55	985	30.71	3,112
District Board Roads—			
1949-50	1028	7.94	773
1950-51	1011	6.75	668
1951-52	1027	7.36	717
1952-53	1023	7.85	768
1953-54	1033	5.04	489
1954-55	1088	3.99	396

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Lengths of roads and area.

Total mileage—2,206.
Area in square mile—5,844.
Population—47,58,342.
Area served per mile—2.65.
Population per mile of road—2,157.

A major portion of Malabar is mountainous and there is concentration of population in the plains. The proposal is to have a road to each village and every village will be served by a road when the five-year plan proposed is implemented fully.

Road Traffic and improved surfacing.

Traffic in the District is rather very heavy and is on the increase every year, the peak load occurring in the month of April.

				Average traffic intensity in a day 24 hrs.
				TONS.
1950	..	..	..	3,361
1951	..	..	..	4,173
1954	..	..	..	6,882

Owing to climatic conditions especially the heavy rains, road maintenance is a difficult problem in Malabar and during the last few years there has been a phenomenal increase in the intensity of traffic particularly in lorry traffic. In comparison with the circumstances, the expenditure per mile is too low. The existing type of roads surface of important roads is not suitable to the present day traffic and the surface has to be improved by cement concreting the very bad portions. Another cause for the rapid deterioration of the road surface is the

22

Road materials.

Labour.

Departmental Mazdoors.

Avenues.

Inspection and Traveller's Bungalows.

There are 44 Travellers' Bungalows at the following places maintained by the district Boards, Kannothe,

Ferries.

Almost all roads are intercepted by rivers and very important crossings are bridged. In other cases continuity of traffic is maintained by ferries. For transport of vehicles on important roads jangadams are provided. There are lot of ferries in the district of which 11 are managed by Government and the rest by the District Board. The right of collecting tolls at these ferries is auctioned every year. The average revenue to Government from the 11 ferries will be about Rs. 77,000.

Activities of the Highways Department since its formation.

Since the formation of Highways Department in 1946, 8 miles and 5 furlongs of Provincial Highways, 2 miles of major district roads, 9 miles of other

Eleven major bridges costing Rs. 166 lakhs have been completed. The railway bridge at Baliapatam has been converted into a road rail bridge at a cost of about 6 lakhs. A bye-pass road to Calicut-Cannanore road near Mahe converting the existing railway bridge to road-rail bridge has also been formed.

Construction of bridges over Srikantapuram river, Theruvath Kadavu, Panamaram, Perumbai and Kuppam, all costing Rs. 26 lakhs are in progress. Three special sub-divisions have been formed to supervise these works.

At present the entire traffic from Calicut, the district headquarters to any point in South Malabar has to pass through the bridge at Kallai and Feroke. This bottleneck causes great congestion and strain to the Madras Calicut road, Calicut Vayitri Gudalur road and Calicut Cannanore road. Therefore it is proposed to have a diversion route connecting Kunnamangalam and Manjeri via. Mookkam and Arcode. The traffic from Mysore and Wynad to south Malabar can be diverted through this route and the under developed villages in the interior part can also be improved. This scheme will cost about Rs. 16.5 lakhs and 2 bridges at Chethukadavu and Mookkam will be constructed. The detailed investigation of the scheme is over and the works are expected to be taken up shortly under the schemes for development of Inter-State roads, etc., sponsored by the Government of India.

In the first five-year plan, Government works costing Rs. 61.33 lakhs and District board works costing Rs. 24.01 lakhs were included. The works are construction of bridges, formation of new roads, etc. Out of this Government works costing Rs. 34.73 lakhs

			<i>Cement concrete.</i>	<i>Black top.</i>	<i>Mettled.</i>	<i>Unmettalled.</i>	<i>Total.</i>
*Government	..	..	12	268	705	..	985
District Board	..	..	..	1	588	419	1008
Municipality	..	..	4	16	80	97	197
P.W.D.	..	..	..	1	15	..	16
					Total	..	2206

In the Second Five-Year Plan an expenditure target of Rs. 8.5 crores for the Madras State for the development of roads except National Highways is proposed. But the state has proposed works for nearly 14.33 crores excluding tools and plants and on that basis, 72.975 lakhs have been allotted for the state Highways and another 72.975 lakhs for the district board roads in this district. The proposal is to construct bridges at

important unbridged river crossings, improvement to the existing roads and formation of new village roads. In addition to the above, it is proposed to develop the existing road from Cape Comorin to Bombay (West Coast Road). The Government of India have agreed to meet the full expenditure for the development of this road. A new division has been formed for this work with its headquarters at Kozhikode. Detailed estimates for widening the existing roads to 32 feet width, widening and reconstructing the existing narrow culverts and weak bridges, improved surfacing, etc., are coming

to a close and some of the items are being taken up for execution.

Since the formation of the Highways Department, communication facilities in the District have considerably improved. When the Second Five-Year Plan under finalisation is completed, Malabar will have a good network of roads with almost all major river crossings bridged, for its better communication for the easy and economic transport of pepper, coconut, arecanut, timber, tapioca, coffee and tea etc., which are in abundance in the district.

LAND TO THE LANDLESS—THE SAINT ON THE MARCH



In the Course of his *Padayatra* Vinobaji reached Vayalur, a village in Chingleput District. The local Bhoomi workers accorded him an enthusiastic reception.

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age in Chicago put District. The local Bhodad
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The Working of Neera Parlour—1956

Of the various attempts made to ameliorate the condition of ex-tappers thrown out of employment on account of the introduction of prohibition the most popular was to organize them into jaggery manufacturing co-operative societies. The members of the societies were issued licences for tapping sweet juice and for converting the same into jaggery. The Kandamanagar and Nallankuppam Jaggery Manufacturing Co-operative Societies were formed in the City of Madras under such Prohibition Amelioration Scheme and their members were issued licences for tapping sweet juice and converting the same into jaggery. The members complained that the production of jaggery was uneconomical owing to the high cost of fuel prevailing in the City and wanted the concession to sell the juice as *neera* under the supervision of Government staff. A scheme was formulated for running mobile *neera* parlours in the City of Madras with the juice produced by the members of the two societies and the aid of jeep and staff provided by Government on no profit or no loss basis to Government. The proposals were sanctioned by Government and implemented every year from 1951. Similar proposals were drawn for running the mobile *neera* parlour in 1956 under the auspices of the same two societies. In addition to the mobile *neera* parlour Government suggested the opening of a stationary *neera* parlour in the premises of the Madras Legislative Assembly during the Budget Session in 1956. Proposals were therefore submitted to Government to sanction the opening of the stationary *neera* parlour in the Madras Legislative Assembly premises. Government sanctioned these proposals and placed a sum of Rs. 9,650 at the disposal of the Special Development Officer, Madras, to meet the expenditure in running the scheme. They also permitted the free services of the Senior Inspector under the Special Development Officer and one Palm Gur Instructor and other equipment including the

jeep for running the stationary and mobile parlours in 1956. Sixteen licences were issued to the members of the Kandamanagar Jaggery Manufacturing Co-operative Society and 21 licences were issued to the members of the Nallankuppam Jaggery Manufacturing Co-operative Society for tapping sweet juice and to supply the same for running the two *neera* parlours in 1956. The Assistant Secretary of the Madras Legislative Secretariat and the Comptroller of the Governor's establishment were kind enough to lend free of rent the tent fixed in the Government House Estate compound very near the Madras Legislative Assembly Building. The Subdivisional Officer, Public Works Department, Government House Estate arranged for closing the sides of the tent with bamboo trellis. The Special Armed Police, Red Hills, fitted side walls lent by the Comptroller of the Governor's Household. The tent was decorated, a board painted 'Neera Parlour' was put up and the stationary parlour was commenced on 13th March 1956. The mobile parlour was commenced on the next day.



The following staff were appointed to run the *neera* parlours:—

Assembly Neera Parlour (Stationary):
 Server on Rs. 45 per mensem. 1
 Cleaner on Rs. 45 per mensem. 1
 Watchman on Rs. 45 per mensem. 1

Mobile Neera Parlour:
 Clerk on Rs. 60 per mensem. 1
 Servers on Rs. 45 per mensem. 2
 Cleaner on Rs. 30 per mensem. 1

In order to keep the *neera* cool and free from fermentation the ice chambers of the *neera* containers both mobile and Stationary were filled with ice and salt in layers and the *neera* was periodically tested with B.T.B. papers to maintain in 8 P.H. Lime was also added to the *neera* whenever required to maintain 8 P.H. The sale in the Assembly and the mobile *neera* parlours commenced at about 8.30 a.m. The mobile *neera* parlour conducted sales at Chintadripet, Ripon Buildings, Mint Bus Stand, Seven Wells Market and the Buckingham and Carnatic Mills

area by moving the *neera* to these places with the aid of the jeep and trailer till the entire stock was sold.

The *neera* was purchased from the members of the two jaggery manufacturing co-operative societies at Re. 0-2-6 per Madras measure and sold in retail at Re. 0-0-9 per one ollock or Re. 0-1-3 per quarter measure. In addition to the sale of *neera* in the Assembly parlour ice cream was also prepared out of *neera* by the Palm Gur Instructor and sold. There was generally demand for ice cream after the sale of *neera* was over. The Assembly *neera* parlour was wound up on 6th April 1956 with the closing of the budget session of the Madras Legislative Assembly and the staff employed for the parlour were also disbanded. The entire production was then sold through the mobile parlour and one more cleaner was appointed. On 31st May 1956, the production of juice by the members of both the Kandamanagar and Nallankuppam Jaggery Manufacturing Co-operative societies fell below 150 Madras measures per day and the staff appointed for the mobile parlour was reduced by one server and one cleaner. On 4th June 1956 the production fell below 80 Madras measures per day and the running of the mobile parlour was not self supporting. The entire mobile *neera* parlour staff was disbanded and



Sweet fresh Neera is being poured into clean pots.

the running of the parlour too was stopped from 5th June 1956 giving due intimation to the members.

During the period from 14th March to 4th June 1956 Kandamanagar and Nallankuppam Jaggery Manufacturing Co-operative Societies supplied *neera* as shown below.

Society.	Quantity supplied in measures.	Cost.		
		RS.	A.	P.
Kandamanagar Jaggery Manufacturing Co-operative Society.	7,990	1,248	7	0
Nallankuppam Jaggery Manufacturing Co-operative Society.	5,646	882	3	0
Total ..	13,636	2,130	10	0

Twenty-one Madras measures were utilized for the preparing of ice cream. At the Assembly parlour 1,890 Madras measures of *neera* were sold for Rs. 615-9-0. Ice cream to the value of Rs. 92-5-0 was also sold there. 3,192 persons took ollock cups of *neera*. 5,964 persons took the greater measures cups of *neera* and 388 persons had ice cream at the Assembly parlour. The Hon'ble Chief Minister and other Ministers, Members of the Assembly and the public who visited the Assembly very often took *neera* in the Assembly parlour and appreciated it as a delicious drink during the scorching summer.

(Continued on page 32)



Straight from the palm grove Neera is collected from the ex-tappers.

More 'Power' for the People
A Running Commentary on Rural Electrification

Modern life and civilisation are becoming increasingly dependent on the use of electricity. The extent of power development in a country is one of the principal means of estimating its economic development and the standard of living attained by its people. Western countries are far ahead of us in the use of electricity for domestic, agricultural and industrial purposes. The per capita consumption of electricity in the economically developed countries of Europe is of the order of 2000 to 4000 units as against 25 units in India to-day. Power development forms an important part of our National Plan. The total installed capacity of power generating plants was 2.3 million KW at the beginning of the First Five-Year Plan period. It has increased to 3.5 million KW in the course of five years. The per capita consumption of electricity has risen from 14 to 25 units. The installed capacity is expected to rise to 6.8 million KW by the end of the Second Five-Year Plan period and the per capita consumption will increase from 25 to 50 units. We have a long way to go to reach the standard attained in Western countries.

Effective means to Employment.

The development of electricity in India has so far been mainly urban. More than 80 per cent of the energy generated in this country is utilised in the six industrial cities of Bombay, Calcutta, Kanpur, Madras, Ahmedabad and Delhi. Over 80 per cent of the total population in India live in rural areas and great majority of them belong to the agricultural classes. If we are to raise the standard of living of the common man we must develop agriculture and rural industries and provide greater opportunities for gainful employment. Electricity provides one of the effective means for this purpose. In Western countries, most of the rural population are provided with electric power and agricultural

purposes consume a great portion of the energy supplied. The success of Japan's industrialisation is due to the availability of cheap electricity throughout the country. Rural electrification is considered quite necessary to bring about a balanced development of our country's economy. During the Second Five-Year Plan period, electric supply will be extended to the smaller towns and also to an increasing number of villages which lie in proximity to the grid lines.

Power-development in Madras State.

The development of power resources has been a notable feature in the recent history of the Madras State. The installed generating capacity has increased from 156,000 KW to 256,500

KW in the last five years. In the matter of electricity supply, Madras State stands next to Bombay and West Bengal. Madras State has been foremost in the extension of electricity to rural areas. 3,500 villages have been so far electrified in this State. The target under the Second Five-Year Plan is to electrify 500 villages in each year. The most popular use of electricity in the village is for agriculture by means of electrically driven pumpsets for lifting water. 33,000 pumpsets are now using power. 30,000 more agricultural pumpsets are expected to be worked by power within the next five years. [Excerpts from the speech delivered by Sri A. B. Shetty, Minister for Health, on the occasion of the switching on ceremony of the Jog Power Supply to South Kanara.]

New Villages electrified during May 1956

Serial number and village.	Taluk.	District.
Pykara Electricity System.		
1. Attuboil	Ootacamund ..	Nilgiris.
2. Naranapuram ..	Periakulam ..	Madurai.
3. Quilandi	Kurumbranad ..	Malabar.
4. Kuthumudi	Ootacamund ..	Nilgiris.
5. Kurukupalayam ..	Palladam	Coimbatore.
6. Anathapuram ..	Palladam	Coimbatore.
7. Royarpalayam ..	Palladam	Coimbatore.
8. Ponmudi	Erode	Coimbatore.
9. Sakkaragoundenpalayam ..	Erode	Coimbatore.
10. Velarupalayam ..	Erode	Coimbatore.
11. Pudupalayam ..	Erode	Coimbatore.
12. Itchikattur	Erode	Coimbatore.
13. Senjeripalayam ..	Erode	Coimbatore.
14. Manupalayam ..	Dharapuram ..	Coimbatore.
15. Kallivalasu	Dharapuram ..	Coimbatore.
Mettur Electricity System.		
1. Old Jolarpet	Tirupattur	North Arcot.
2. Vakkanampatti ..	Tirupattur	North Arcot.
3. Karkur	Gudiyatham ..	North Arcot.
4. Pudur-Chengam ..	Chengam	North Arcot.
5. Sohanur	Krishnagiri ..	Salem.

Serial number and village.	Taluk.	District.
Papanasam Electricity System.		
1. Petmanagaram ..	Srivaikundam ..	Tirunelveli.
2. Koilandanoor ..	Tenkasi	Tirunelveli.
3. Kallampuli	Tenkasi	Tirunelveli.
4. Levanjipuram ..	Nanguneri ..	Tirunelveli.
5. Kailasapuram ..	Nanguneri ..	Tirunelveli.
6. Rajakrishnapuram ..	Nanguneri ..	Ramanathapuram.
7. Todampatty (Peria)	Sattur	Ramanathapuram.
8. Chinna Todampatty ..	Ramanathapuram ..	Ramanathapuram.
9. Pamban	Ramanathapuram ..	Tirunelveli.
10. Thangachimadam ..	Nanguneri ..	Tirunelveli.
11. Karungulam	Nanguneri ..	Tirunelveli.
12. Parappadi	Nanguneri ..	Tirunelveli.
13. Veppankulam	Nanguneri ..	Tirunelveli.
14. Thamaraikulam ..	Nanguneri ..	Tirunelveli.
15. Karisalkulam ..	Nanguneri ..	Madurai.
16. Karisalvilai	Nilakkottai ..	Madurai.
17. Pallappatti	Nilakkottai ..	Madurai.
18. Kavundampatty ..	Nilakkottai ..	Madurai.
19. Ramachittayapatti ..	Nilakkottai ..	Tirunelveli.
20. Sandalapuram	Tiruchendur ..	Tirunelveli.
21. Authur	Tiruchendur ..	Ramanathapuram.
22. Mela Authur	Sattur	Madurai.
23. Sirukulam	Melur	
24. Natham		
Madras Electricity System.		
1. Hanumanthapuram ..	Tiruvellore ..	Chingleput.
2. Kilacheri	Madurantakam ..	Chingleput.
3. Kottakuppam	Tiruvallur	Chingleput.
4. Maruderi	Madurantakam ..	Chingleput.
5. Melpakkam	Tiruvallur	Chingleput.
6. Mettupalayam	Sriperumbudur ..	Chingleput.
7. Musaravakkam	Kanchi	Chingleput.
8. Nemilicheri	Sriperumbudur ..	Chingleput.
9. Palappur	Madurantakam ..	Chingleput.
10. Perungavoor	Ponneri	Chingleput.
11. Porur	Madurantakam ..	Chingleput.
12. Pukkathurai	Madurantakam ..	Chingleput.
13. Putlur	Tiruvallur	Chingleput.
14. Ramareddipalayam ..	Ponneri	Chingleput.
15. Sadayankuppam	Saidapet	Chingleput.
16. Seemapuram	Ponneri	Chingleput.
17. Sevvapet	Tiruvellore ..	Chingleput.
18. Sothupakkam	Saidapet	Chingleput.
19. Tandarai	Sriperumbudur ..	Chingleput.
20. Thiruvanaikoil	Kanchi	Chingleput.
21. Vallapakkam	Tiruvellore ..	Chingleput.
22. Vasalai	Madurantakam ..	Chingleput.

(Continued from page 14)
in 1956-57. Of these, one had already been started at Uthiramerur and yours is the second Bank that is being started today. With the starting of your Bank, all the 12 large-sized societies proposed to be formed under the pilot scheme sanctioned by the Government in the six districts of South Kanara, Malabar, Coimbatore, Chingleput, Ramanathapuram, and Tirunelveli have begun to function. Those

which have begun to work already have made good headway as their transactions will indicate. The Government will give subsidy to the societies towards the cost of the employment of staff and they will also give financial assistance for the construction of godowns at a cost of Rs. 15,000 each. The Government will also invest share-capital of Rs. 10,000 in each of these large-sized societies, such share-capital being invested through the financing

Banks concerned. With these arrangements, the large-sized societies or the agricultural banks as they are named in this State, will derive great strength and cater to the needs of the people.

Since the primary objective of such an agricultural bank is to serve the credit needs of the agriculturists, it is necessary that survey should be made of the needs of all the families in the area of your Bank. Every family should become a member of the Bank and it should be the objective of the Bank to supply the credit needed by all the members for cultivation on their lands. The members to whom the loans are given should enter into an agreement with the Bank that they will sell their produce through the nearest marketing society.

The integration of credit with marketing is the essence of the scheme and this integration cannot be brought about unless the agricultural bank and the marketing society work in close unison. The agricultural banks should serve not only as suppliers of credit but also endeavour to tap local deposits. Members and others should be persuaded to deposit money and they should be encouraged to practise thrift.

Under the Second Five-Year Plan, it is proposed to cover 75 per cent of the villages, serve 50 per cent of the rural population and meet 21 per cent of their credit requirements. In Chingleput district the percentage of villages covered is 60, the percentage of population served is 18.7 and the loans issued amount to Rs. 20 lakhs per annum. More villages and families will have to be brought within the co-operative fold."

The Superintending Engineer (Distribution), Madras Electricity System has since reported that the following three villages were electrified during April, 1956 :—

Vaisavankuppam, Ponneri taluk, Chingleput district—12th May 1956.
Naduveerambakkam, Ponneri taluk, Chingleput district—12th April 1956.
Thirurkundalam, Sriperumbudur taluk, Chingleput district—24th April 1956.
The number of villages electrified in the Madras Electricity System will therefore be 21 and the total number of villages electrified will be 78.

The Employees' Provident Funds Act (Scheme)

Extension to Additional Industries

SRI J. SUBBUSWAMY, M.A., BAR-AT-LAW, I.A.S.

Introduction

I am speaking to you soon after the extension of the Employees' Provident Funds Act and Scheme to the additional industries. The Government of India Notifications issued on 4th July 1956 state that on 31st July 1956, the Employees' Provident Funds Scheme, 1952, will come into force for the following industries, namely Matches with certain limitations, Edible Oils and Fats, Sugar, Rubber and Rubber Products, Electricity including generation, transmission and distribution thereof, Tea, Printing within certain specific limits, Glass with certain limitations, Stoneware Pipes, Sanitary Wares, Electrical Porcelain insulators of high and low tension, Refractories and Tiles.

Background

To appreciate fully the present extension of the Scheme, it is necessary to delve slightly into the past. It was in 1925 that the provident funds of certain private concerns were first regulated, but with a limited scope. Though as early as 1929 the Royal Commission on Labour conceded that industrial workers had need for a provident fund, it was possible only in 1948, after a careful consideration of the pros and cons, to institute a full fledged scheme for the Coal Mines. From that year, this concept of providing provident fund benefits for industrial workers never looked back, and with developments this culminated in the Employees' Provident Funds Act, 1952, and in its wake the Scheme of 1952. Certain defects in the Scheme were remedied in 1953, and now the Act and Scheme have been amended to include the additional industries. To complete the picture it may be added that further improvements are under consideration, thereby proving that Government are receptive to modern ideas and that the Act and Scheme are dynamic.

The main objects

The main object of the Act and the Scheme is to make a provision for the industrial workers in the nature of a retirement-cum-invalidation benefit. Incidentally the migratory character of labour is checked to some extent and the final payment made to the industrial worker when he ceases to be employed is also intended to provide him with some compensation against unemployment. The Scheme contemplates the payment of accumulations to the nominee or the heirs of the

industrial worker and thus is intended to support the bereaved family.

In cases of death, migration for permanent settlement abroad, retirement on attaining the age of 55 years, permanent medical invalidation and on suffering from tuberculosis and leprosy, full accumulations in the Fund are paid immediately. In certain other deserving cases such as mass retrenchment or serious illness, also immediate payments are made on the special sanction of Government. In all other cases full payment of employer's contribution are made after a continuous membership of 20 years. But in cases where the industrial worker chooses to resign, etc.) before the expiry of the 20 years period, graded deductions of the employer's share of contributions are made. A waiting period of three months, is prescribed before final payments are made normally as this would provide an incentive for an industrial worker to seek suitable alternative employment and to prevent the frittering away of accumulations during short period of unemployment.

To whom applicable

The Act is not applicable to any factory belonging to a Government or a local body or to any other factory unless three years have elapsed from its first establishment and even then only if it employs 50 or more industrial workers at the relevant time. The Scheme is not applicable to contractual labour, to an apprentice, to an employee, generally, whose basic wages at the relevant time exceed Rs. 300 per mensem, to any employee exempted under section 17 of the Act, to any person, who by a declaration has opted for a provident fund under the rules, or to an employee who has had his accounts finally settled. The Act and the Scheme apply to every other employee who has completed one year of continuous service in the factory, that is to say, continuous work for 240 days in a period of twelve calendar months.

Its machinery

The Fund vests in and is administered by the Central Board of Trustees at the Centre and the Regional Committees to be replaced by State Boards, at the State level. The Central Board of Trustees and the Regional Committees are tripartite in character containing an equal number of members representing the Government, the employers' and the employees' organizations.

The Chairman of the Central Board and of the Regional Committees are nominated by the Central Government from the officials dealing with this subject. The Central Provident Fund Commissioner at Delhi and the Regional Provident Fund Commissioners at the Regional level are the Secretaries and Executive Officers respectively. The Regional Committees are linked to the Central Board which again is linked on to the Ministry of Labour, Government of India.

Its administration

Each Regional office has its complement of Gazetted Officers for the Accounts and for the Enforcement branches and an expanding field staff for inspecting factories, clarifying doubts and implementing the provisions of the Act and the Scheme, on the spot. General Administration of the organization is carried on by means of prescribed forms and periodical returns on due dates, remittances of contributions, administration and inspection charges by the factories within the stated time and check and scrutiny at the Regional office. Excepting the Accounts Officer who stays at headquarters, the Provident Fund Inspectors and the Regional Commissioners tour in their areas and thus co-ordinate the implementation of the Act and the Scheme.

Benefits for the Employee

The benefits conferred by the Act and the Scheme are many. By having to pay a sum equivalent to 6½ per cent of the pay and dearness allowance by every member, a spirit of thrift is unconsciously infused in the industrial worker. At the same time a provision against old age is assured. As the investments are in Central Government securities, the funds are kept not only safe but are only used to finance Plan projects. The accumulations of a member in the Fund have been statutorily declared not attachable by any debtor under any decree or order of Court thereby preserving them inviolate for the worker. As the entire employer's contribution is refundable to the member after 20 years of membership in the Fund, an incentive is created in the worker member to continue in service and thus earn his legitimate reward at the end of a continued and satisfactory period of service. The tendency to migrate from one employer to another and even from one industry to another is indirectly checked and thus the worker is relieved of anxiety and enjoys a sense of security. Interest is declared each year on the accumulations of the members and this is another element which encourages members leaving their accumulations in the fund and not withdrawing them too hastily. As withdrawals from accumulations in the Fund are permitted under certain safeguards for the payment of life insurance premia, the industrial worker enjoys a double advantage in making provision for his old age, for he both saves and insures himself.

Benefits for the Employer

The advantages derived from the institution of the provident fund by the employer are equally substantial.

The migratory character of labour, which is one of the most important causes of a poor turnover in factories and a constant head-ache to the employers is minimised and a larger output at an economical cost is ensured. The continued availability of trained workers adds to the efficiency and the quality of production. As under paragraph 71 of the Scheme, the employers and managements can recommend forfeiture of their own contributions for the current year and for two more years immediately preceding the current year in cases of grave misconduct on the part of the industrial workers, this has a chastening effect on the behaviour of industrial labour in general and thus in some measure minimises strikes and industrial unrest.

General advantages

Even apart from the benefits conferred by the Fund on the employee and the employer the country as a whole has benefited because of the feeling of oneness which has been generated by this contributory provident fund wherein the employee and the employer contribute in equal measure. This has helped to create in the worker an interest in the employer and the feeling that he has a stake in the industry. In the same way the outlook of the employer towards labour is gradually changing and the desire now is not so much to exploit labour but to work in partnership with labour for the stabilisation of industry and for the advancement of the country. This same spirit, it is hoped, will ripen into a feeling that "everyone is a partner in building up this New India", to quote the words of our Prime Minister.

Responsibilities of the Employee

It is inevitable that every such progressive social legislation implies certain duties and responsibilities to be borne by the employees and the employers. The employee in the additional industries has to get himself accustomed to the deductions made from his wages and dearness allowance to the extent of one anna in the rupee. At the time of the implementation of the Act and the Scheme to the additional industries, the workers in these industries, should give accurate information to the managements of the factories and to the officers of the provident fund organization regarding their wages and dearness allowance, their previous membership in the Fund through any other factory, their previous account number, and such other important and necessary details. All workers affected by the covering of the additional industries should fill in correctly and properly 'Nomination Forms', which alone will ensure that the benefits acquired by them in the Fund are duly passed on to their nominees and heirs. The workers while being reasonably vigilant regarding their rights and benefits, acquired by them under the present expansion, should also cultivate the correct attitude having their doubts clarified in the proper manner, namely through their employers.

Duties and responsibilities of the Employees

The Act and the Scheme throw a fairly onerous responsibility on the employers because the whole administration of the Fund at the factory level is carried on through the employers. A statutory duty is cast on the employers for correctly preparing and furnishing the necessary data in the prescribed forms and returns on due dates to the appropriate provident fund authorities. In the case of existing provident funds, it is the responsibility of the employer to transfer the present accumulations to the Employees' Provident Fund. 'Nomination Forms' have a special importance in this context, as they are original documents equivalent to a will bequeathing the savings of workers and the responsibility of correctly obtaining information from the workers and forwarding these completed 'Nomination Forms' to the Regional offices rest with the employers. It is needless to add that the employers should pay in their share of the contributions as well as their administration or inspection charges, as the case may be, regularly on the due dates. The legal maxim that "Ignorance of Law is no excuse", applies with equal force to the Act and Scheme, and factories are reminded that those who are eligible are obliged to come into the Fund, under pain of penal action and the payment of substantial damages. Exemptions from the Scheme are generally considered on the basis of the quantum of benefits at present obtaining in the factories being equally if not more beneficial to the workers. Hence it is up to the factory managements to obtain full information regarding exemptions and complete the filling in of all forms and the furnishing of full data so as to facilitate the grant of exemption without undue delay.

A few facts and figures

A few necessary facts and figures are given mainly to bring out the enormity of the task which awaits us. Even at present for the six prescribed industries, coverage has been given to over 16 lakhs of employees working in about 2,200 factories at the All-India level. With the inclusion of the 13 industries with effect from July 31, 1956, the coverage is expected to be extended to about 4 more lakhs of workers working in 1,400 factories in the country. The position in the Madras Region just prior to the extension of the Scheme to the 13 industries was that about 140,000 workers were covered, spread over 256 factories. The extension of the Act and the Scheme to the 13 additional industries is expected to provide coverage for an additional 45,000 workers employed in about 250 factories. The above figures do not include the 2,700 employees who are anticipated to be covered in 22 newspaper establishments by the extension of the Act and the Scheme to the newspaper industry.

To whom to go to for information

It is necessary that such a beneficial piece of legislation and the extension thereof should be implemented promptly, efficiently and as smoothly as possible. When so many workers belonging to so many different industries come for the first time within the scope of the Act and the Scheme, it is obvious that many questions may arise for decision and many doubts may have to be clarified, and this would be especially true of a legislation of this magnitude where so much is left at the initial stage to the workers and to their employers. The State Government have kindly issued orders directing the revenue staff and the staff of the Labour and the Factories Departments to render every assistance in the smooth implementation of the Scheme. The Regional office at No. 111, Mount Road, Teynampet Cathedral P.O., Madras, Telephone No. 86881, will always be at the service of any one who wishes to obtain more information in this regard. The Provident Fund Inspectors at No. 10/1, Sambandam Mudaliar Road, R.S. Puram, Coimbatore, with Telephone No. Coimbatore, 1006, and at No. 28, Panagal Road, Tallakulam P.O., Madurai, can also be contacted for such information.

Conclusion

I have traced the origin of the Employees Provident Fund Act and the Scheme, enumerated its benefits and advantages to all parties, and also emphasised the care and thought that have been bestowed in the matter of extending the Act and the Scheme to the 13 additional industries. It is really a tribute to the successful administration of the Scheme in the existing industries, that there has been such a steady demand from all quarters and from all interests for the expansion of the Act and the Scheme to cover additional industries. The cause is a lofty and worthy one, because we cannot afford to disregard the industrial workers and their claim for consideration in their old age, for after all they have given the best part of their lives in helping to increase production in the cause of the country. It is a truism to state that even the best legislation in the world requires the co-operation of all concerned to make it a success. Hence in the interest of the industrial workers, of the industrial advancement of the country and on behalf of the Board of Trustees, on practically the eve of the inauguration of the Scheme to the additional industries, I request the co-operation of the employers and the employees' organizations, of the officers and staff of the managements of the concerned factories, and indeed of each industrial worker affected, in implementing the Scheme to the additional industries and thereafter in working it smoothly.

(By Courtesy All-India Radio, Madras.)

A.I.R. Thiruchi—Rural Programmes for August

Wednesday, 1st August 1956—
Eye-diseases—Discussion.

Kaichilambu Kacheri.
Araichi Kudam (The latest in research)—Discussion on subjects of interest and use to farmers.
Market rates and water level readings; topical discussion; weather report.

Thursday, 2nd August 1956—
Farm Forum: Discussion.
Amma Mandapa Padithurai—Feature.

Market rates and water level readings; topical discussion; weather report.

Friday, 3rd August 1956—
Ani Alankaram (3) Pasi Pavalam—Musical Serial.

The Village Welfare Association—Discussion.
Grama Padasalaiyil (5) Naladiar—Exposition.
Market rates and water level readings; topical discussion; weather report.

Saturday, 4th August 1956—
Villinaai Otha Puruvam—Song.
The Adult Literacy Class: Tirukural—Oppuravarithal (Kural Nos. 211 and 212).

Chittira Vimanam—Song.
Talk in Tamil arranged by the Director of Community Development, Government of Madras.
Weekly review of market rates.
Market rates and water level readings; topical discussion; weather report.

Sunday, 5th August 1956—
Kashmir Fruits: Discussion.
Grama Kalakshepa Mandapathil: 'Buddha Piran'—Musical discourse.
Market rates and water level readings; topical discussion; weather report.

Monday, 6th August 1956—
Grama Nataka Sabhaiyil: Santhanathevan Kathai: Play by 'Maran'.
Market rates and water level readings; topical discussion; weather report.

Tuesday, 7th August 1956—
Farm Forum: Discussion.
Gnana Chuvadi: Isai Nigazhehi.
Kathirundavan: Play.
Market rates and water level readings; topical discussion; weather report.

Wednesday, 8th August 1956—
Listeners' Letters.
Poocharam: Songs on Lord Buddha.
Gramappattum Katchiyum.
Market rates and water level readings; topical discussion; weather report.

Thursday, 9th August 1956—
Farm Forum: Discussion.
Folk Ballad: Chinnathambi.
Market rates and water level readings; topical discussion; weather report.

Friday, 10th August 1956—
Telkadi Marundu: Play.
Irulil Oli—Serial feature on Gandhi ji's life by 'Turaivan'.
Namadu Dittam (3) Irrigation: Discussion.
Market rates and water level readings; topical discussion; weather report.

Saturday, 11th August 1956—
Ulagodu Samamena—Song.
The Adult Literacy Class: Tirukural—Oppuravarithal (Kural Nos. 213 and 214).
Kannikaveri—Song.
Radio Interview—Karnam: Beti.
Weekly review of market rates.
Market rates and water level readings; topical discussion; weather report.

Sunday, 12th August 1956—
Useful Weeds: Discussion.
Varna Mettu—Folk tunes.
Gramathu Machan (3) Serial Sketch.
Market rates and water level readings; topical discussion; weather report.

Monday, 13th August 1956—
Good Variety of Fish: Discussion.
Folk Art: Dummy Horse Dance by S. Ramachandra Rao and Party.
Market rates and water level readings; topical discussion; weather report.

Tuesday, 14th August 1956—
Farm Forum: Discussion.

Folk Songs.
Pookkara Ponnai (4) Vadikkai Karargal Maddiyil—Serial Sketch by 'Sukhi'.
Market rates and water level readings; topical discussion; weather report.

Wednesday, 15th August 1956—
Gramathil Sudantiram: Programme recorded at a village.
Market rates and water level readings; topical discussion; weather report.

Thursday, 16th August 1956—
Farm Forum: Discussion.
Folk Ballad: Katta Bomman Kadai.
Market rates and water level readings; topical discussion; weather report.

Friday, 17th August 1956—
Tyaga Jyothi: Feature.
Tudippadalgal.
Kamalathin Kanavan: Play.
Market rates and water level readings; topical discussion; weather report.

Saturday, 18th August 1956—
Oorukkellam: Song.
The Adult Literacy Class: Tirukural—Oppuravarithal (Kural Nos. 215 and 216).
Kovil Muzhudum Kanden: Song.
The role of co-operatives in the National Extension Service and Community Project Schemes—Talk in Tamil arranged by the Registrar of Co-operative Societies, Government of Madras.

Weekly review of market rates.
Market rates and water level readings; topical discussion; weather report.

Sunday, 19th August 1956—
Bee-keeping: Discussion.
Varna Mettu: Folk tunes.
Ezhuthukkara Ekambaram—Serial Sketch by N. Vasudev.
Market rates and water level readings; topical discussion; weather report.

Monday, 20th August 1956—
Guinea-worm in Cattle: Discussion.
Folk Art: Oyilattam.

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Market rates and water level readings; topical discussion; weather report.

Tuesday, 21st August 1956—

Farm Forum: Discussion.

Gnana Chuvadi: Isai Nigazhehi.

Family Planning: Discussion.

Market rates and water level readings; topical discussion; weather report.

Wednesday, 22nd August 1956—

Listeners' Letters.

Poocharam: Songs on Lord Buddha.

Pulluruvu (2) Suthadi—Serial Sketch by 'Maran'.

Market rates and water level readings; topical discussion; weather report.

Thursday, 23rd August 1956—

Farm Forum: Discussion.

Folk Ballad: Sudalai Madan.

Market rates and water level readings; topical discussion; weather report.

Friday, 24th August 1956—

Tenun Tinaiyum: Feature.

Irulil Oli: Serial feature on Gandhiji's life by 'Turaivan'.

Namadu Dittam: (4) Ennai Ootrukka: Discussion.

Market rates and water level readings; topical discussion; weather report.

Saturday, 25th August 1956—

Vellippanimalaiyin: Song.

The Adult Literacy Class: Tirukural—Oppuravarithal (Kural Nos. 217 and 218).

Inimaithamizh Mozhi: Song.

Radio Interview: Kollam Pattiraikarar: Beti.

Weekly review of market rates.

Market rates and water level readings; topical discussion; weather report.

Sunday, 26th August 1956—

Grama Panchayat: Kadankaran

Mosadi Vazhakku: By N. Vasudev.

Varna Mettu: Folk tunes.

Market rates and water level readings; topical discussion; weather report.

Monday, 27th August 1956—

Cattle-sheds: Discussion.

Folk Art: Lavani.

Market rates and water level readings; topical discussion; weather report.

Tuesday, 28th August 1956—

Farm Forum: Discussion.

Kannan Pirandan: Musical discourse by N. Raghavan.

Market rates and water level readings; topical discussion; weather report.



Chief Minister, Sri K. Kamaraj, inaugurated the Malayadipalayam Co-operative Agriculturists' Bank, Ltd., in the Coimbatore district.

Wednesday, 29th August 1956—

Malaria: Discussion.

Sakkai Attam.

Questions on the Air: Discussion on subjects of rural interest specially those relating to agriculture.

Market rates and water level readings; topical discussion; weather report.

Thursday, 30th August 1956—

Farm Forum: Discussion.

Onre Kulam: Feature.

Songs on Untouchability.

Market rates and water level readings; topical discussion; weather report.

Friday, 31st August 1956—

Folk Song Lesson.

The Village Women's Forum: Discussion.

Kalyanappadagal.

Pattai Kelungal.

Market rates and water level readings; topical discussion; weather report.

Do You Know?

(Continued from page 25)

The Government of India have sanctioned Rs. 22.48 lakhs for road development works in Assam, Madhya Bharat and Kutch.

Export of jute goods from India touched the highest level of 8.51 lakh tons in 1954-55 as against 7.92 lakh tons in 1953-54.

The rehabilitation Finance Administration had, up to April 30, 1956, sanctioned Rs. 1,257.48 lakhs to be distributed as loans to displaced persons.

Thirty-five thousand powerlooms will be installed during 1956-58 to help handloom weavers working on co-operative basis to switch over to a more economic method of production.

The sale of 11,795½ Madras measures was entrusted to the mobile parlour from 15th March to 4th June 1956. The total sales in the parlour were 12,260-5 Madras measures and the amount realised was Rs. 4,105-13-3. In the mobile parlour 35,121 persons took ollock cups of neera and 31,482 persons took the quarter measure cups. In the course of handling of neera in both the parlours there were 915-7 Madras measures of sediment and there was an excess of 1,451-4 Madras measures. Both the parlours were popular and appreciation was expressed for them in the popular dailies of the City and State.

Aluminium production in India increased to 7,245 tons in 1955 from 4,886 tons in 1954.

SCENES AT SARVODAYAPURAM



The Congress President and the Chief Minister at the Sarvodaya Camp.



Acharya Vinoba Bhave commencing his prayer as a preliminary to his fast. The Acharya and the President at the former's hut.

These two disciples of Acharya Bhave, one hailing from Japan and the other from America are engaged in the work of spinning and sweeping. They are seen earnestly practising the Sarvodaya principle—the dignity and desirability of manual labour.





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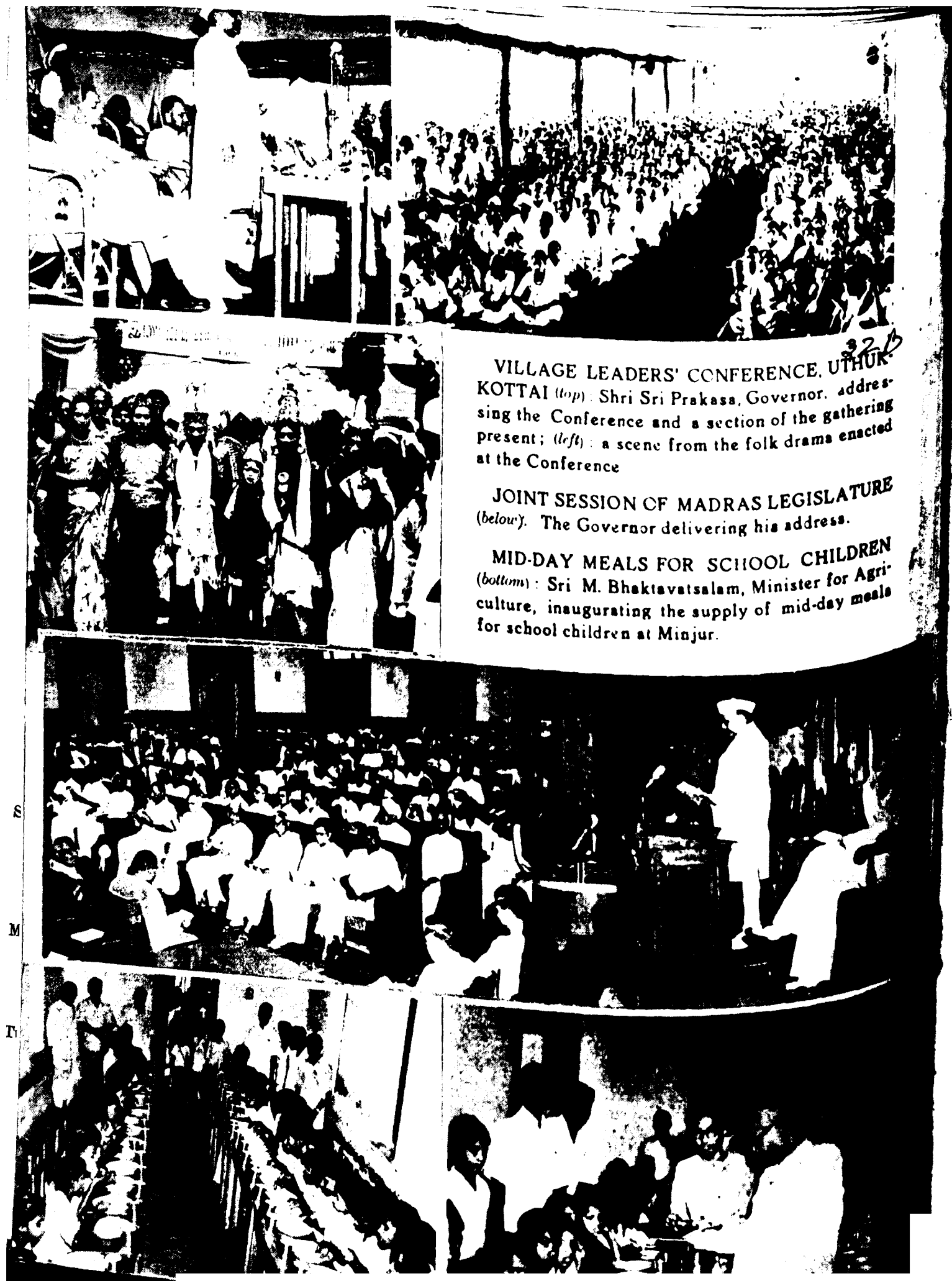


SEPTEMBER 1956
Price 3 annas

MADRAS

Information





VILLAGE LEADERS' CONFERENCE, UTHUKOTTAI (top): Shri Sri Prakasa, Governor, addressing the Conference and a section of the gathering present; (left): a scene from the folk drama enacted at the Conference

JOINT SESSION OF MADRAS LEGISLATURE (below): The Governor delivering his address.

MID-DAY MEALS FOR SCHOOL CHILDREN (bottom): Sri M. Bhaktavatsalam, Minister for Agriculture, inaugurating the supply of mid-day meals for school children at Minjur.

10 SEP 1956

Madras Information

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"WE SEEK TO SERVE AND NOT TO COMPETE"

September 1956

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Cover Picture: Independence Day this year in Madras was celebrated colourfully and with pomp under the distinguished presence of President Dr. Rajendra Prasad. Picture shows the President's State drive along Mount Road towards the Island Grounds where he reviewed the Independence Day parade.

The ninth year of freedom constitutes another important landmark in the economic and political history of India. The successful completion of the First Five-Year Plan brought about the stabilisation of our economic system and prepared the ground for the inauguration of the more ambitious Second Five-Year Plan. Agriculture and food problem on which emphasis was laid in the First Plan showed perceptible improvement all over the country and has set a steady pace of progress for this primary industry. The emphasis in the Second Plan is naturally therefore on industries and employment, aiming to raise the national income by 25 per cent by the end of the Plan period. The importance of food and agriculture, however has not been overlooked either.

In the political field the year was alive with proposals and programmes relating to reorganisation of States, following the recommendations of the States Reorganisation Commission. The keen interest evinced by the people throughout the length and breadth of the country on this issue and the enormous influence public opinion could exert on the proposals, may perhaps be regarded as the coming of age of Indian democracy, firmly based on strong and vigilant public opinion.

In Madras also the year witnessed rapid progress in all fields of economic development and social welfare. In stating this, however, one cannot fail to recall the tragic scenes left behind in the southern districts by the ravages of cyclone and heavy rain in last November. The losses suffered by the unfortunate victims of these areas were heavy and their sorrow great. However the promptness and extent of the relief measures undertaken by the Government, in which task the people offered their unstinted co-operation, have been able to relieve their hardships and heal their wounds. To enable the people of these areas to rebuild their economy and return to normal life, a sum of about Rs. 3 crores has been distributed as loans to the victims in the affected areas. Work has been undertaken at a cost of about Rs. 1½ crores to repair all the damaged irrigation works in the areas and most of them have been completed. Another scheme that has been drawn up is for the construction of about 5,000 pucca houses in the affected areas for the use of Harijans and other poor folk who have lost their dwellings. The Community Development Scheme has been extended to some of the worst affected areas to facilitate an integrated and intensive development of the rural economy in these districts.

Another disturbing tendency that raised its head towards the end of the year was the slight upward trend of foodgrain prices in certain areas. The

situation is being effectively met by opening fair price shops in the affected localities, thereby stabilising the price-level within the limits. The situation has been well controlled and with the impending harvests may well be overcome.

Agriculture.

During the year agriculture maintained its steady progress. The scheme for multiplication and distribution of improved seeds was continued by the Agricultural Department during the year. Between August 1955 and March 1956, a quantity of 10,011 tons of improved paddy seeds and 406 tons of improved millet seeds was distributed covering an area of 450,495 and 60,900 acres respectively resulting in an additional production of 30,167 tons of rice and 3,467 tons of millets with an estimated gain of Rs. 1,20,66,800 and Rs. 10,39,800 respectively. Pests and diseases on crops were controlled by the adoption of suitable control measures by the Plant Protection Wing of the Agricultural Department and as a result in 1955-56, the estimated savings in food will be 14,800 tons whose money value is estimated at Rs. 98,57,600. Under the Intensive Manuring Scheme on paddy, about 16,500 tons of fertilizers were distributed to ryots between August last and February this year as a result of which an estimated additional production of 27,600 tons of paddy is anticipated.

During 1955-56, an area of about 25,600 acres was ploughed and levelled by tractors and bulldozers hired out by the Department and the resultant additional output is estimated to be about 3,200 tons. Agricultural machinery like oil engines, etc., was hired out to ryots of cyclone affected areas of Ramanathapuram, Tanjore, Tiruchirappalli and Madurai districts at half the usual rates as a relief measure. The cyclone had uprooted over 5,000 coconut trees in Ramanathapuram district and about 4 lakhs of coconut trees in Tanjore district. In order to

Yet One More Madras State in the

rehabilitate these coconut plantations the Agricultural Department has undertaken a scheme to raise and supply 1½ lakhs of coconut seedlings per year besides diversion of over 30,000 seedlings to this area from the nursery at Pattukkottai.

As a result of working of a special development scheme in oilseeds, an important commercial crop in Madras State, a total area of 2,760 acres of seed farms for multiplying seeds of improved strains was raised. A total additional production of 2,107 tons of oilseeds has been achieved as a result of spread of improved seeds and another 1,440 tons as a result of practising intensive cultivation methods.

During the year, three improved strains of paddy seed, two of jowar, one of bajra, one of ragi, and two of cotton were released for multiplication and large scale distribution. These strains are intended to cover 60,000 acres in paddy, 3½ lakhs acres in jowar, 8,000 acres in bajra, over a lakh of acres in ragi, and 8½ lakhs acres in cotton and would add to the ryots' income by over Rs. 20 million per year. Improved strains already cover 46 per cent of the total acreage under paddy, 14 per cent in jowar, 22 per cent in bajra, 18 per cent in ragi, 60 per cent in cotton, 21 per cent in groundnuts, 16 per cent in gingelly and 95 per cent in sugarcane.

Irrigation

Out of twelve irrigation projects taken up for execution under the First Five-Year Plan, the Cauvery Delta Drainage Improvements Scheme, the Lower Bhavani Reservoir Project, the Malampuzha Project and the Mettur Canals have been almost completed and during the year water was let out for irrigation under Lower Bhavani Project for about 167,000 acres, Malampuzha 35,000 acres and Mettur Canals 18,000 acres.

On the Lower Bhavani Project work has practically been completed

Step Forward Ninth Year of Freedom

excepting on some distributaries, work on which is progressing. Work on the Malampuzha dam has been completed. Investigation of the Left Main Canal and distributaries was completed and during the year the canal was thrown open for irrigation for about 35,000 acres. Under the scheme for the Right Bank Canal which was sanctioned in 1955-56 only, investigation has been completed and excavation work is in full swing.

Work on the entire 27 miles long Right Bank Canal of the Mettur Canals Scheme has been completed, while work on the Left Bank Canal was in progress.

About 80 per cent of masonry and 40 per cent of earth dam on the Manimuthar Project was completed during the year and 80 per cent of the excavation work on the canal has been completed.

On the Araniar Reservoir Project, the formation of the reservoir was in an advanced stage. Excavation of the main canal from Suratapalli anicut has been completed and excavation of branch channels and construction of cross masonry works were in full swing.

Works in both masonry and earth dam on the Walayar Reservoir Project were in advanced stage of completion. Masonry works in the canals were also under various stages of completion, and 50 per cent of the ayacut is expected to be thrown open for irrigation by September this year. Similarly works on the masonry and earth dams on the Mangalam Reservoir Project also were nearing completion and 50 per cent of the ayacut is expected to be thrown open for irrigation by the beginning of September.

At the Amaravathi Project site excavation of foundations was completed except for one half of the river bed and construction of masonry and earth dam was in progress.

Excavation of the dam line on the Vaigai Reservoir Project was completed

and final alignment settled. Work on masonry dam has been started, while excavation of foundation for the earth dam was in progress. Two coffer dams have been put up on either sides of the river.

Work on the Sathanur Project also was in progress. It is expected to throw open the main canal for irrigation for about 1,000 acres during this year. Work on the earth dam on the Krishna-giri Project was in progress while work on the masonry dam has been started. Among the schemes included in the new Plan, work has already been started on the Meenakarai Project in Malabar and the Kattalai and Pullambadi schemes have been sanctioned recently.

Electricity

Progress on the Electricity development schemes also was similarly steady and sustained. The demand for power for agricultural and industrial purposes was steadily on the increase and among the new services connected up during the year were included about 19,359 domestic services, 5,659 agricultural pumpsets and 545 small scale industries. The power demands for the several systems totalled 208 M.W.

Under the programme of rural electrification, a number of extensions for distribution of power in rural areas was in progress and the tempo of the work was speeded up in view of the improved financial position and the loans of Rs. 3 crores sanctioned by the Government of India for rural electrification and Rs. 397.5 lakhs for expansion of power facilities to increase employment opportunities. Supply to over 5,600 pumpsets was given as also to a number of rural industries. The number of villages electrified during the year alone was 720 as against a target of 500 and it is an all time record.

Work was in progress on all the Schemes started under the Five-Year Plan. Under the Pykara III Stage Extension Scheme, the work relating to the construction of the Pykara dam was completed except for the erection of the spillway gates which was in progress. Work on the erection of the second boiler under the Second Stage of the Madras Plant Extension Scheme was taken up during the year. Work relating to the Third Stage Extension is shortly expected to be

taken up, civil works for which are already in progress.

Under the Periyar Hydro-electric Scheme, enlargement of the existing irrigation tunnel for a distance of 3,000 feet has been completed while in the power tunnel, 90 per cent of the tunneling was completed, 50 per cent of the excavation of pipe tunnel and sinking of the surge shaft have been completed. The grading of penstocks was in progress. Levelling of power house site, transformer yard and excavation of diversion channel were in progress.

The inauguration of the Kundah Hydro-electric Scheme which is the largest single item in the Second Five-Year Plan has given a good start to the further programme of power development in Madras State. The supply of Jog power to South Kanara district was switched on during the year, thus satisfying a long felt need of that district.

Industries

During the period under review, a sugar factory with a daily crushing capacity of 1,000 tons has been established in Tanjore and licenses have been granted for the establishment of three more sugar factories of which two will be in Tanjore district and one in North Arcot district. Two of the three cement factories in the State have been permitted to increase their production capacity by about 250,000 tons. License has also been granted for starting a Caustic Soda and Soda ash factory in Tirunelveli district and some of the existing concerns have been permitted to manufacture new chemicals like chlorine salts, alum, etc. In the field of textiles, there has been considerable expansion of spinning mills.

With effect from 1st October 1955, the Government of India have assumed direct control of the Neiveli Lignite Investigations. Large scale pumping operations were carried out during the year to ascertain whether it will be possible to reduce the pressure of underground water table sufficiently to permit the safe excavation of the mineral.

The possibilities of starting iron and aluminium industries in Salem district and paper mills in the Nilgiris and Malabar areas are being examined.



Photo taken on the occasion of laying the foundation stone for the ginning factory to be constructed by the Srivilliputhur Uganda Cotton Growers' Co-operative Marketing Society, Limited, by the Chief Minister to the Government of Madras on 10th July 1956.

The development of Small-scale industries has been given a prominent place in the Second Plan, mainly with a view to increase the production of consumer goods and as a means of reducing unemployment. The Madras Government has sanctioned the establishment of Service Centres for the benefit of the pressed metal fabricators in Madras, for the lock industry at Dindigul, for the ceramic industry in Malabar and footwear industry at Perambur and Palghat. The purpose of establishing these Service Centres is to provide common facility services to small industrialists and individual artisans. The Government have also sanctioned the establishment of model carpentry workshops at Cheranmahadevi (Tirunelveli district) and Krishnagiri (Salem district) and the establishment of a Galvanising Plant at Mettur for galvanising steel structures for electric transmission towers required by the Electricity Department.

In view of the difficulties experienced by small industrial units for raising sufficient funds required for putting up factory sheds and at the same time finding working capital, the State Government have decided to establish Industrial Estates at Guindy, Virudhunagar, Palghat and Tirunelveli. These Industrial Estates will provide built-up factory spaces with all modern amenities like power supply, water-supply, transport facilities, etc., to small industrialists who will be

permitted to occupy the factory spaces on a rental basis or on a hire-purchase basis. The private parties will also be given the option of putting up their own buildings at these Estates, for which about 75 per cent of the cost of the building will be provided as loan.

The development of the handloom industry in Madras State has received

considerable attention at the hands of the Government from time to time and they have formulated interim and long-term measures to place the handloom weaver on his feet. During 1955-56, there was considerable progress in the implementation of various cess fund schemes sanctioned by the Government for the rehabilitation of the handloom industry. Provision was also made for rendering financial assistance to the handloom weavers engaged in the production of handloom cloth with silk and art silk yarn, by advancing loans to weavers towards share capital to become members of the newly started weavers' societies in places like Kancheepuram, Arni, Kumbakonam, Chinnalampatti, etc.

Education

During the year, there were in Madras State 24,387 Elementary schools (other than Basic schools), the total number of pupils under instruction in them being 1,948,192 boys and 1,167,674 girls.

There were 1,284 Basic schools in the State during the year, the number of scholars in them being 103,348 boys and 63,538 girls. Besides, the Government sanctioned the conversion of 1,300 Elementary schools into Basic schools and a sum of Rs. 13,00,000 was provided in this



Eight small bridges were constructed under Local Development Scheme on the Karkinj Nerya Road on Mangalore-Kadur Road in Charmandy on the edge of the Western Ghats of Malnad. The total cost was Rs. 30,000. The Government paid Rs. 13,000 and the rest, i.e., Rs. 17,000, was contributed by Janah Koya Kutty Hajee and Company. The photo shows the opening of the bridge by Sri N. N. Swarna, B.A., B.L., M.L.A.

connection for supply of craft equipment to the schools to be converted into Basic schools, and a further sum of Rs. 1,00,000 for land and buildings. There were four Post-Basic schools in the State during 1955-56.

The number of Secondary schools was 861 for boys and 209 for girls, the number of Indian Secondary schools alone being 836 for boys and 182 for girls. The strength of Indian Secondary schools was 408,258 boys and 136,573 girls. Forty-four new Secondary schools (31 under Local Bodies and 13 under Private management) were opened and one closed during the year. The Committee appointed to advise on the implementation of the recommendations of the Secondary Education Commission submitted its report in October 1955. The Government sanctioned the introduction, during the year, of 100 diversified courses of studies in high schools, thus converting 65 schools into multi-purpose schools with two diversified courses in each.

Seven new Arts Colleges (one First grade and rest Second grade) were opened during the year. There were 45 colleges for general education for men, while the total number of colleges for general education for women was 18. The strength in the various University classes was 37,702 men and 6,776 women.

Five new Training Colleges were opened during the year, two by aided agencies and three by Government. Eleven non-basic training schools were also opened during the year.

The number of Medical Colleges in the State was 7 including the Government College of Integrated Medicine, Madras, and the Venkataramana Ayurvedic Dispensary and College, Mylapore. The strength of these institutions was 2,847 men and 690 women. The strength in Madras Veterinary College was 379 men and 3 women. The Government Agricultural College, Coimbatore, had a strength of 278 men and 4 women. The Forest College, Coimbatore, had a strength of 98 men. The number of colleges of Engineering including the Department in the Annamalai University was 6, the number of scholars in them being 2,211 men.

The number of Social Education Centres was 1,022 and the number under instruction was 27,106 men and 2,682 women.

One of the important measures introduced during the year was the decision to give exemption from fees to all children, the income of whose parents or guardians did not exceed Rs. 1,200 per year.

It was also decided by the Government to grant pension to teachers in

elementary and certain categories of teachers in Secondary schools who retired from service from the 1st April 1955.

The Committee headed by Dr. Alagappa Chettiar constituted to go into the entire system of Elementary Education submitted its report to Government on the 2nd October 1955 and the report is under the consideration by the Government.

A White Paper on Education was published by the Government in March 1956 and has been before the public for eliciting their opinion.

Co-operation

Early in the year, the Government appointed a Committee under the Chairmanship of Sri T. M. Narayanaswami Pillai to review the progress of co-operative movement in Madras State, to ascertain its present needs, difficulties and problems and make recommendations regarding its consolidation and development. The Committee has submitted its report to Government and is under examination.

The Madras State Co-operative Bank and the Central Banks continued to provide short-term funds to agriculturists for their seasonal agricultural operations and marketing of produce through the primary credit and marketing societies, while the Madras Co-operative Central Land Mortgage Bank provided the long-term loans. A significant feature of the year was that the Reserve Bank of India, which has been providing short-term funds to the State Co-operative Bank at a concessional rate of 1½ per cent, came forward to provide medium-term funds also at concessional rates and the State Co-operative Bank also offered to provide such funds from its own resources to meet growing demands for medium-term loans from the agriculturists. To channel the medium-term funds to the agriculturists, separate rural co-operatives known as Rural Co-operative Banks were started during the year. Twenty-six such Banks have been started during the year.

Special attention was paid to the organisation of co-operative processing societies for the benefit of producers. A co-operative society for the cashew-nut growers of South Arcot district and three co-operative Sugar Factories



Villagers laying pipe-lines for drainage under the Local Development works programme.

for the sugarcane growers at Ambur in North Arcot district, Udamalpet in Coimbatore district and Madurantakam in Chingleput district have been formed.

Another outstanding feature of the movement in the year was the organisation of Health Co-operatives to provide medical aid to the rural population.

Community Development

The Community Development programme was in operation in four

Community Projects, 35 Community Development Blocks and 31 National Extension Service Blocks covering a population of 90 lakhs out of a total rural population of 290 lakhs. The Scheme has, during the year, become a "People's programme with Government participation". This conversion of a Government launched programme was possible due to the enthusiastic support and active participation of the people in the development activities. An integrated and well co-ordinated

programme of rural reconstruction, the Community Development Schemes aim at the improvement of agriculture and increasing agricultural yield and the provision of much needed amenities like village roads, drinking water-supply, health and medical facilities, educational and recreational facilities, etc. These development schemes are laying down the foundations for a well-knit system of rural economy and a bright future for the country.

District Handloom Weavers' Co-operative Federation

Weavers' co-operatives in the Madras State have recorded striking progress. Both the Central and State Governments are rendering considerable assistance to the cause of handloom weavers from time to time. The Department arranges for supervision of weavers' co-operative societies, the financing banks provide funds for working capital and the Madras State Handloom Weavers' Co-operative Society supplies yarn and provides technical know-how in regard to production. At the district level there is no agency to co-ordinate the activities to advise the weavers, co-operatives on matters of common interest and to keep the Apex Weavers institution informed of the general requirements of the primaries. An institution at the district level with a council of advisers for ensuring constant co-ordination among the various aspects of development of the weavers' co-operative societies has not so far been set up as a result of which a healthy development of the movement has not been possible. To remove this defect, the formation of

a District Handloom Weavers' Co-operative Federation has been suggested. This Federation will lay down general policies in the matter of wages, production, yarn supply, marketing, etc. It will also act as local agency for the Madras State Handloom Weavers' Co-operative Society and will look after the interests of the State society. Steps were taken to organise Federations in three districts, viz., Madurai, Salem and Tirunelveli in the first instance. The Madura District Federation was started on 26th November 1955 and the Federation at Salem on 8th April 1956. The Federation at Tirunelveli was started on 20th July 1956 by Sri A. Palaniappa Mudaliar, M.A., Registrar of Co-operative Societies, Sri R. V. Raman, I.A.S., Collector of Tirunelveli, presiding.

The main objects of the Federation are to develop, assist and co-ordinate the work of the affiliated primaries and to secure for them financial and other help wherever necessary, to recommend loan applications, to

arrange for the collection of indents for supply of raw materials such as yarn, chemicals, dyes, etc., required by weavers' co-operatives and to transmit them to the State society, to arrange for the supply of improved appliances and to take steps to improve the quality of goods and to market them.

The Federation will be managed by a governing body consisting of representatives of weavers' co-operative societies, Co-operative Central Bank, Central Stores, and Madras State Handloom Weavers' Co-operative Society and officials like the Deputy Registrar and Marketing Officer. The first set of governing body is nominated by the Registrar of Co-operative Societies, Madras.

The Federations are an unique feature of co-operative effort designed as they are to fulfil the role of co-ordinating agency among the different authorities who exercise control over the activities of weavers co-operative societies.

Iron and Steel Control Regional Office

The newly set-up office of the Deputy Iron and Steel Controller, Government of India, started work from 6th August 1956 at 45, Evening Bazar, Madras-3.

The Regional office has been set up to handle expeditiously the increased imports of steel which will be needed for India's construction requirements under the Second Five-Year Plan. The Regional office will not only look after the procedural requirements for importing steel but will also enable speedy co-ordination on the spot of Port, Customs, Railways and other authorities, so that the imported steel can move to the consuming centres without any loss of time.

The Madras office is the second of the two offices set up for this purpose. The Western Regional office having started functioning at Bombay from June 15. The jurisdiction of the Madras office will be the areas comprising the States of Madras, Andhra, Hyderabad, Coorg, Mysore, Travancore-Cochin and Pondicherry.

The main functions of the office will be as follows:—

(1) Issue of import licences for iron and steel materials and pig iron falling under Part I of the Import Trade Control Schedule.

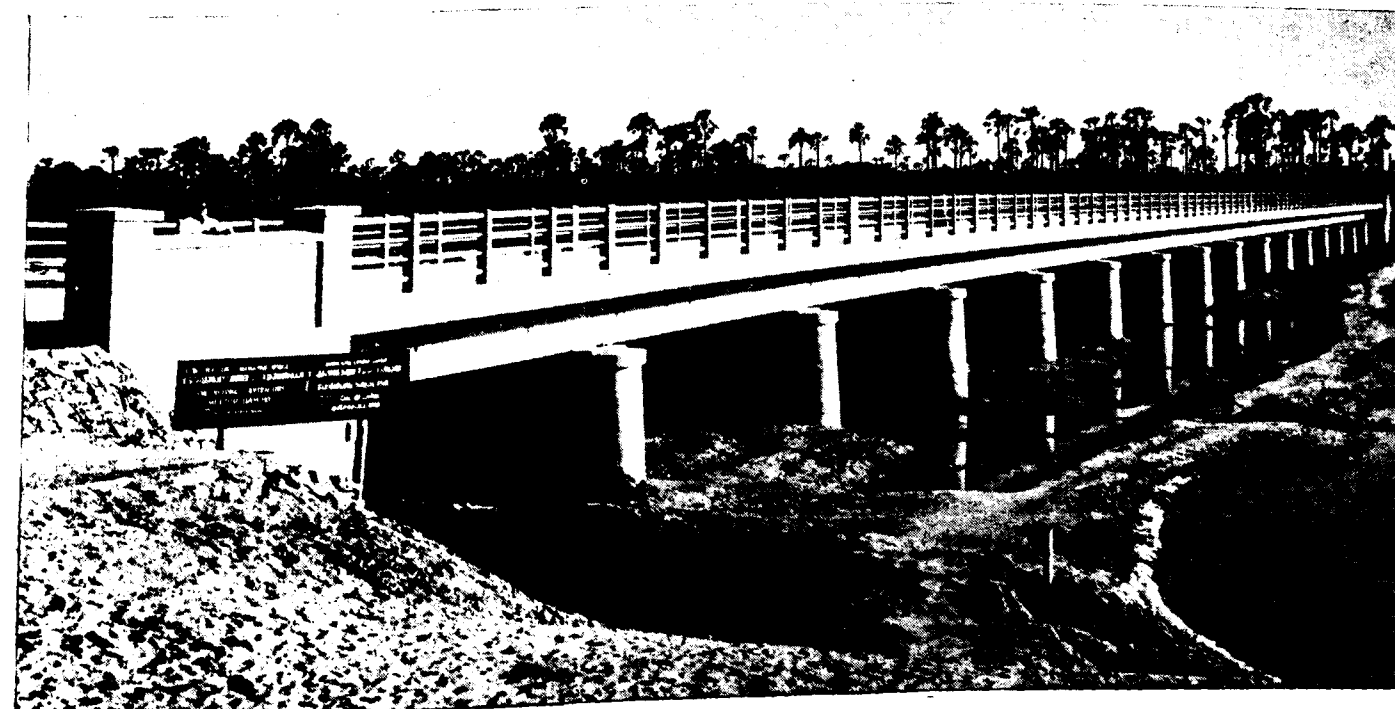
(2) Issue of customs clearance permits relating to import licences issued by the Regional office.

(3) Issue of export licences for scrap arisings within its area after inspection.

(4) Distribution of industrial and railway scrap arisings within its jurisdiction.

(5) All correspondence relating to the distribution of imported steel after the distribution orders have been issued by the Headquarters office of the Iron and Steel Controller, Calcutta.

(6) Clearance and transport of steel imported on Government account and under the T.C.A. Scheme.



The bridge over Karamanar at Manapad, recently opened by Sri K. Kamaraj, Chief Minister of Madras.

The Bridge over Karamanar at Manapad

This bridge leads to Manapad village which lies isolated, surrounded by River Karamanar and the sea without any direct communication with Kula-sekharapattinam and Tiruchendur. The people endeavoured and agitated for the bridge and road, their efforts being in vain for a long time.

Later, two philanthropic gentlemen (Messrs. S. S. Miranda and J. A. D. Victoria) came forward to construct a bridge at their own expense, commenced it in 1939, and opened on 13th September 1940. But as the bridge was constructed very near the sea without adequate safeguards, it collapsed in December 1945 due to sudden rush of high tides.

Subsequently, villagers of Manapad pressed on the Government for construction of a pucca bridge and the work was accordingly sanctioned under Central Road Fund Scheme.

After investigation, the site at which the bridge now stands was selected and a bridge with 12 feet roadway was designed for Rs. 2.20 lakhs with 16 spans of 30 feet clear to conform to the standard of a village road only. But due to developments culminating

in the sanction of Thambaraparni bridge at Mukkani the coastal route from Tuticorin to Cape Comorin (via) Tiruchendur, Manapad, Kuttam and Ovari the design had to be revised. This coastal road is bound to develop enormous traffic of both light and heavy vehicles and has therefore to be maintained as a M.B.R. A bridge of 12 feet width for single lane roadway was considered insufficient in view of the growing importance of the road. Hence when the work was put on hand

a revised estimate for Rs. 3.56 lakhs adopting 22 feet carriageway over the bridge was got sanctioned. The bridge has a total length of 540 feet.

The bridge opens the door for the people of these parts for greater inter-communication and paves the way for the general improvements of the locality, by opening a through route from Cape Comorin to Tiruchendur, seats of two famous shrines of South India and on to Tuticorin Port on the North side.

Service to Ex-servicemen

In the article headed "Service to Ex-servicemen" published at pages 17 to 20 of the *Madras Information* for June 1956, the following amendment may be made to the paragraph under "Medical facilities", column (3), page 17:—

In the list of sanatoria given therein, "(3) Malabar T.B. Sanatorium, Pariyaram" and "(4) Mahatma Gandhi Memorial T.B. Sanatorium, Tanjore" may be deleted, and "Government Wellesley T.B. Sanatorium, Bellary" added.

In explanation of the above, it may be stated that, though the recurring charges for treatment of ex-servicemen at the rate of Rs. 100 per head per month are paid to patients in the sanatoria mentioned in the article, with the addition of the Government Wellesley T.B. Sanatorium, Bellary, the wards for ex-servicemen were constructed only in the sanatoria mentioned in (1), (2), (5), (6) and the Bellary Sanatorium. Item (6) is now under the Andhra P.W.S.R. Fund and the Wellesley T.B. Sanatorium, Bellary, is under the Mysore Fund.

New Decimal Coinage

Conversion Rates
Progress of

How many Naye Paise one should get in exchange of a given number of annas and pies will probably be the principal worry of the average citizen when the new decimal coins are put into circulation with effect from April 1, 1957. There is no cause for worry, however, because, as the public is aware, both the sets of coins will continue to be legal tender for a considerable period after the introduction of the new coins.

Under the new system the rupee will be divided into 100 units of Naya Paisa as against the existing division of the rupee into 192 pies or 64 pice. The table below shows the new coins against the corresponding (but not necessarily equivalent) unit of the existing coins :—

Naya Paisa.	Existing coin.
1 Naya Paisa ..	1 pice.
2 Naye Paise ..	2 ..
5 ..	1 anna.
10 ..	2 annas.
25 ..	4 ..
50 ..	8 ..
100 ..	16 ..
(1 Rupee)	(1 Rupee)

In the above table, 25, 50 and 100 Naye Paise (one rupee) have their equivalents in existing coins, viz., annas 4, 8 and one rupee respectively. But, for 1 Naya Paisa, 2, 5 and 10 Naye Paise there are no equivalents in existing coins. These will replace the current units at that level, namely, 1 pice, 2 pice, one anna and 2-anna pieces.

On April 1, 1957, all the new coins will not be put into circulation. Only one Naya Paisa and 2, 5 and 10 Naye Paise will be circulated. The others namely, 25 and 50 Naye Paise and the new rupee (100 Naye Paise) will be put into circulation later.

As more and more new coins are introduced, the existing coins will be gradually withdrawn. It is expected that in a period of three years, this process would be complete. During this period of transition, knowledge of the conversion rates between the old and the new coins is essential.

Ready Reckoners.

To enable people to understand the conversion rates properly the Ministry of Finance has prepared two Ready Reckoners which will be made available extensively at all important places of monetary transactions. These reckoners give conversion rates up to Re. 1. Conversions from rupee one and above are not necessary as Rupee remains the same under both the existing and the new systems.

Ready Reckoner No. I which gives the rate of conversion of all coins beginning from 1 pie to a rupee is mainly intended for conversion of book balances as on April 1, 1957. The Reckoner with which the public at large

will be directly concerned is the Ready Reckoner No. II which is called the Simplified Ready Reckoner.

Simplified Ready Reckoner.

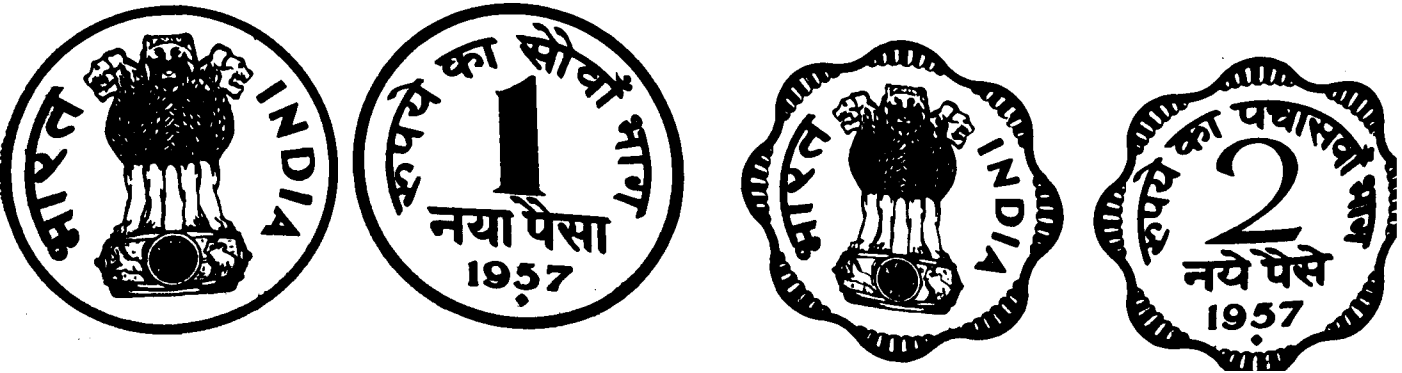
The Simplified Ready Reckoner indicates the conversion rate in terms of annas and pice (expressed in 3, 6 and 9 pies) only. It omits reference to values involving odd pies. Reference to odd pies has not been considered necessary as pie coins are not usually available for tender in course of a transaction.

The method of using the Simplified Ready Reckoner (No. II) is illustrated by the following example :—

Supposing the Naye Paise equivalent of 5 annas and 6 pies is required. Find the horizontal column beginning from 5 in the "annas" column (extreme left). Then find the vertical column beginning from 6 under the "pies" column at the top. It will be seen that these two columns meet at the figure 34. This figure, namely, 34 is the equivalent in Naye Paise of 5 annas and 6 pies.

In studying the above Reckoner (Simplified) the public should note that the "annas" column goes down vertically in serial Nos. from 1 up to 16 in the extreme left of the table as indicated by the arrow. The "pies" column goes horizontally in the top

1 NAYA PAISA		2 NAYE PAISE	
Composition..	Bronze	Composition..	Cupro-Nickel
Shape	Round	Shape	8 Scal- loped
Diameter	16 m/m	Diameter	18 m/m
Weight	1.5 Gra- mmes	Weight	3 Gra- mmes
		Beads	56



with Existing Coins
Withdrawal

as indicated by the direction of the arrow. To find out the equivalent of a given number of annas and pies, the illustration given above should be followed.

The conversion table is to be used only when coins are actually tendered in course of a transaction. For other purposes where conversion is necessary such as computation of total value at a given rate, the exact equivalent of the rate should be worked out even though it involves fractions of a rupee. Thereafter the fractions should be converted into Naye Paise in accordance with the conversion table. For example :

If a pencil costs 1½ annas and one wants to purchase a dozen pencils and has got only Naye Paise coins to pay, he should calculate the total cost in the following manner :

Cost of 12 pencils in existing coinage = 12 × 3/2 = 18 annas or 1 rupee and 2 annas. Rupee remains the same. The Naye Paise equivalent of 2 annas is 12 according to the Simplified Ready Reckoner (No. II). Therefore, the cost of 12 pencils in new coins will be Re. 1 and 12 Naye Paise.

Ready Reckoner No. 1.

The Ready Reckoner No. I is intended primarily for conversion of book balances. Some difficulties are likely to be experienced in its use as in some cases, it will be noticed that different amounts of the existing coins are convertible to the same amount of

Naye Paise. For example, both 3 and 4 pies are convertible to 2 Naye Paise. The person who pays cannot be compelled to pay 4 pies which is the nearest equivalent at the rate of 192 pies to 100 Naye Paise, but will have to be satisfied with a payment of 3 pies, which according to the 'rounding off' prescribed in Section 14 (2) of the Indian Coinage (Amendment) Act, 1955, is equal to 2 Naye Paise.

There would thus be some loss, particularly in the earlier stages, but it is expected that the loss will be minimised when increasing quantities of new coins get into circulation. Moreover, as the rounding off is applicable only when actual cash is tendered during a transaction it is hardly likely that a person will go on tendering pice after pice or other low denomination coins to get the benefit of this 'rounding off'. The percentage loss will also become less and less when larger amounts are tendered. In any case, whatever be the loss, it will be loss to one person and consequent gain to the other. And, of course, after the transition period is over, the problem will not arise.

5 NAYE PAISE		10 NAYE PAISE	
Composition..	Cupro-Nickel	Composition..	Cupro-Nickel
Shape	Square Shape & Rounded Edges	Shape	8 Scal- lops
Diameter	22 m/m	Diameter	23 m/m
Weight	4 Gra- mmes	Weight	5 Gra- mmes
Beads	44	Beads	56

Ready Reckoner No. I for conversion of Annas-Pies into Naye Paise.

To be used only on occasions of actual tender of existing coins of the value specified in the course of any single transaction.

Wherever a value in existing or new coinage is required to be converted into the other coinage for purposes other than actual tender of coins in the course of any single transaction the exact equivalent should be worked out at the rate of 100 Naye Paise to 1 rupee or 16 annas or 64 pice or 192 pies.

1 pie	= 1 Naya Paisa.
2 pies	= 1 Naya Paisa.
3 do.	= 2 Naye Paises.
4 do.	= 2 do.
5 do.	= 3 do.
6 do.	= 3 do.
7 do.	= 4 do.
8 do.	= 4 do.
9 do.	= 5 do.
10 do.	= 5 do.
11 do.	= 6 do.
1 anna	= 6 do.
1 do. 1 pie	= 7 do.
1 do. 2 pies	= 7 do.
1 do. 3 do.	= 8 do.
1 do. 4 do.	= 8 do.
1 do. 5 do.	= 9 do.
1 do. 6 do.	= 9 do.
1 do. 7 do.	= 10 do.
1 do. 8 do.	= 10 do.
1 do. 9 do.	= 11 do.
1 do. 10 do.	= 11 do.
1 do. 11 do.	= 12 do.
2 annas	= 12 do.
2 do. 1 pie	= 13 do.
2 do. 2 pies	= 14 do.





2 annas 3 pies = 14 Naye Paise

2 do. 4 do.	= 15 do.
2 do. 5 do.	= 15 do.
2 do. 6 do.	= 16 do.
2 do. 7 do.	= 16 do.
2 do. 8 do.	= 17 do.
2 do. 9 do.	= 17 do.
2 do. 10 do.	= 18 do.
2 do. 11 do.	= 18 do.
3 annas	= 19 do.
3 do. 1 pie	= 19 do.
3 do. 2 pies	= 20 do.
3 do. 3 do.	= 20 do.
3 do. 4 do.	= 21 do.
3 do. 5 do.	= 21 do.
3 do. 6 do.	= 22 do.
3 do. 7 do.	= 22 do.
3 do. 8 do.	= 23 do.
3 do. 9 do.	= 23 do.
3 do. 10 do.	= 24 do.
3 do. 11 do.	= 24 do.
4 annas	= 25 do.
4 do. 1 pie	= 26 do.
4 do. 2 pies	= 26 do.
4 do. 3 do.	= 27 do.
4 do. 4 do.	= 27 do.
4 do. 5 do.	= 28 do.
4 do. 6 do.	= 28 do.
4 do. 7 do.	= 29 do.
4 do. 8 do.	= 29 do.
4 do. 9 do.	= 30 do.
4 do. 10 do.	= 30 do.
4 do. 11 do.	= 31 do.
5 annas	= 31 do.
5 do. 1 pie	= 32 do.
5 do. 2 pies	= 32 do.
5 do. 3 do.	= 33 do.
5 do. 4 do.	= 33 do.
5 do. 5 do.	= 34 do.
5 do. 6 do.	= 34 do.
5 do. 7 do.	= 35 do.
5 do. 8 do.	= 35 do.
5 do. 9 do.	= 36 do.
5 do. 10 do.	= 36 do.
5 do. 11 do.	= 37 do.
6 annas	= 37 do.
6 do. 1 pie	= 38 do.
6 do. 2 pies	= 39 do.
6 do. 3 do.	= 39 do.
6 do. 4 do.	= 40 do.
6 do. 5 do.	= 40 do.

25 NAYE PAISE	50 NAYE PAISE
Composition... Pure Nickel	Composition... Pure Nickel
Shape... Round	Shape... Round
Diameter... 19 m/m	Diameter... 24 m/m
Weight... 2.5 Grammes	Weight... 5 Grammes
Beads... 50	Beads... 50
Serrations... 100	Serrations... 150

6 annas 6 pies	= 41 Naya Paise.
6 do. 7 do.	= 41 do.
6 do. 8 do.	= 42 do.
6 do. 9 do.	= 42 do.
6 do. 10 do.	= 43 do.
6 do. 11 do.	= 43 do.
7 annas	= 44 do.
7 do. 1 pie	= 44 do.
7 do. 2 pies	= 45 do.
7 do. 3 do.	= 45 do.
7 do. 4 do.	= 46 do.
7 do. 5 do.	= 46 do.
7 do. 6 do.	= 47 do.
7 do. 7 do.	= 47 do.
7 do. 8 do.	= 48 do.
7 do. 9 do.	= 48 do.
7 do. 10 do.	= 49 do.
7 do. 11 do.	= 49 do.
8 annas	= 50 do.
8 do. 1 pie	= 51 do.
8 do. 2 pies	= 51 do.
8 do. 3 do.	= 52 do.
8 do. 4 do.	= 52 do.
8 do. 5 do.	= 53 do.
8 do. 6 do.	= 53 do.
8 do. 7 do.	= 54 do.

8 annas 8 pies = 54 Naye Paise.

8 do. 9 do.	= 55 do.
8 do. 10 do.	= 55 do.
8 do. 11 do.	= 56 do.
9 annas	= 56 do.
9 do. 1 pie	= 57 do.
9 do. 2 pies	= 57 do.
9 do. 3 do.	= 58 do.
9 do. 4 do.	= 58 do.
9 do. 5 do.	= 59 do.
9 do. 6 do.	= 59 do.
9 do. 7 do.	= 60 do.
9 do. 8 do.	= 60 do.
9 do. 9 do.	= 61 do.
9 do. 10 do.	= 61 do.
9 do. 11 do.	= 62 do.
10 annas	= 62 do.
10 do. 1 pie	= 63 do.
10 do. 2 pies	= 64 do.
10 do. 3 do.	= 64 do.
10 do. 4 do.	= 65 do.
10 do. 5 do.	= 65 do.
10 do. 6 do.	= 66 do.
10 do. 7 do.	= 66 do.
10 do. 8 do.	= 67 do.
10 do. 9 do.	= 67 do.
10 do. 10 do.	= 68 do.
10 do. 11 do.	= 68 do.
11 annas	= 69 do.
11 do. 1 pie	= 69 do.
11 do. 2 pies	= 70 do.
11 do. 3 do.	= 70 do.
11 do. 4 do.	= 71 do.
11 do. 5 do.	= 71 do.
11 do. 6 do.	= 72 do.
11 do. 7 do.	= 72 do.



100 NAYE PAISE

Composition...	Pure Nickel
Shape...	Round
Diameter...	28 m/m
Weight...	10 grammes
Beads...	50
Serrations...	200
Security Edged...	

11 annas 8 pies = 73 Naye Paise.

11 do. 9 do.	= 73 do.
11 do. 10 do.	= 74 do.
11 do. 11 do.	= 74 do.
12 annas	= 75 do.
12 do. 1 pie	= 76 do.
12 do. 2 pies	= 76 do.
12 do. 3 do.	= 77 do.
12 do. 4 do.	= 77 do.
12 do. 5 do.	= 78 do.
12 do. 6 do.	= 78 do.
12 do. 7 do.	= 79 do.
12 do. 8 do.	= 79 do.
12 do. 9 do.	= 80 do.
12 do. 10 do.	= 80 do.
12 do. 11 do.	= 81 do.
13 annas	= 81 do.
13 do. 1 pie	= 82 do.
13 do. 2 pies	= 82 do.
13 do. 3 do.	= 83 do.
13 do. 4 do.	= 83 do.
13 do. 5 do.	= 84 do.
13 do. 6 do.	= 84 do.
13 do. 7 do.	= 85 do.
13 do. 8 do.	= 85 do.
13 do. 9 do.	= 86 do.
13 do. 10 do.	= 86 do.
13 do. 11 do.	= 87 do.
14 annas	= 87 do.
14 do. 1 pie	= 88 do.
14 do. 2 pies	= 89 do.
14 do. 3 do.	= 89 do.
14 do. 4 do.	= 90 do.
14 do. 5 do.	= 90 do.
14 do. 6 do.	= 91 do.
14 do. 7 do.	= 91 do.
14 do. 8 do.	= 92 do.
14 do. 9 do.	= 92 do.
14 do. 10 do.	= 93 do.
14 do. 11 do.	= 93 do.
15 annas	= 94 do.
15 do. 1 pie	= 94 do.
15 do. 2 pies	= 95 do.
15 do. 3 do.	= 95 do.
15 do. 4 do.	= 96 do.
15 do. 5 do.	= 96 do.
15 do. 6 do.	= 97 do.
15 do. 7 do.	= 97 do.
15 do. 8 do.	= 98 do.
15 do. 9 do.	= 98 do.
15 do. 10 do.	= 99 do.
15 do. 11 do.	= 99 do.
16 do.	
1 Rupee	= 100 do.

Ready Reckoner No. II.

Simplified Ready Reckoner for conversion of annas-pies into Naye paise.— To be used only on occasions of actual tender of existing coins of the value specified in the course of any single transaction.

Where a value in existing or new coinage is required to be converted into the other coinage for purposes other than actual tender of coins in the course of any single transaction, the

exact equivalent should be worked out at the rate of 100 naye paise to 1 rupee or 16 annas or 64 pice or 192 pies.

Instructions on how to use the Table to find the "Naye Paise" equivalent of any sum of 'Annas' and 'Pies'.— Find the horizontal column that

corresponds to the given number of 'annas'. Then find the vertical column that corresponds to the given number of 'pies'. The figure that appears where these two columns coincide is the correct 'Naye Paise' equivalent.

Pies	0	3	6	9
Annas				
0	..	2	3	5
1	6	8	9	11
2	12	14	16	17
3	19	20	22	23
4	25	27	28	30
5	31	33	34	36
6	37	39	41	42
7	44	45	47	48
8	50	52	53	55
9	56	58	59	61
10	62	64	66	67
11	69	70	72	73
12	75	77	78	80
13	81	83	84	86
14	87	89	91	92
15	94	95	97	98
16	100	..	..	..

Conditioning Reflexes for Development

II. Inefficiency in Production

SRI J. M. LOBO PRABHU, I.C.S.

The Second Five-Year Plan provides Rs. 200 crores for the great adventure of changing the life of Indian villages. The First Five-Year Plan provided 101.6 crores of which only 21.30 crores was spent till March 1955. In the aggregate the provision is larger than any country has made for a single project.

An enterprise of such dimensions deserves to be examined on every ground. While much thought has been devoted to the framework, no attempts have been made to understand the people. The village, the villager and the Officials are conceived as they were in 1936 when rural development first began to interest the Government. Much that has happened since, particularly the impact of the two factors, democracy and science, has not influenced either the end or the means of the plan for the 80 per cent of the population, living in villages. Finance and fervour can be misspent if the natural tendencies in the situation are obscured by assumptions which have lost their purpose and are out of date. On the eve therefore of the Second Five-Year Plan a probe into basic assumptions and a restatement of ways and means seems necessary. First and foremost, the basic problems of the rural economy have to be viewed not only in the light of country's new powers and potentials but also in their physical and psychological aspects. So far the pathology has been treated without reference to the nerve centres which, if understood and controlled, can be not only more economical but more effective. In the one year I was Collector of Chingleput district, I tried to view each problem from its psychological side to discover particularly reflexes, which could be conditioned. Communities like individuals can be subjected to conditioned reflexes, which automatically move them in desired directions.

The mark of every rural activity

Inefficiency in production is the mark of every rural activity. In agriculture, the gap between the optimum and average may be discerned from the

yield of rice, 800 lb. an acre by current methods to 3,000 lb. by the Japanese methods, with 10,000 lb. as a record. For wheat, it has just been reported, from Bombay that the Japanese method raises the yield per acre from 20 maunds to 30-35 maunds. The significance of these figures is that given the technique, water, seed and fertiliser, the production of food in the country can be doubled even within the limits of the present cultivated land. The question is how optimum conditions can be generalised? At present improved agriculture is confined to microscopic areas. In the Thirukalukundram Block, which most visitors to the Madras State do not fail to praise, at the present rate of progress, the whole area can be converted to better seed only in 220 years, to green manure in 54 years and to the Japanese methods in 60 years. Similar calculations based on the area converted to the total area are not likely to yield different results for other blocks in the country. Such appraisal, the only realistic one, shows how much there is to be done and how little has been done. And unless our agricultural productivity catches up with that of other countries, there can be no real improvement in other sectors. The Planning Commission has realised this and in their proposals for Land Management have suggested legislation, classifying farms in two grades above and two grades below the average. "While farms which fall into the first two categories should be given suitable encouragement and recognition, steps should be taken to ensure that those falling below the average are assisted in improving their standards. The legislation should provide for such measures as warning, direction and supervision, and in the last resort for assumption of management." For the first time it has been recognised that the cultivator has responsibilities and like the English farmer should be made to accept the appropriate discipline.

Conditional Assistance

The Commission recommends that in the first instance land management may be introduced in each State in selected National Extension and

Community Project areas. The Commission has probably in mind only the encouragement and recognition of the two higher classifications, as penal measures for the two lower classes cannot be introduced in the development areas, without loss of the popularity of the general movement. The Commission probably contemplates a strategy of pressure, on one hand helping those who help themselves and on the other making others realise what they are losing. Nothing could be more effective, for instance, than conferring irrigation, seed, fertilisers and loans only to those who accept the Japanese method. It has also an ethical and economic basis, because State help, which is naturally limited, should be given where it is most fruitful. If the movement loses the lip service of those who preach but do not practise, it will gain by the sheer success of the few who respond quickly and fully. The test for State assistance may therefore be the simple one that the party accepts the entire blueprint for his work. To reassure the timid, even crop insurance up to a certain yield may be added to the help given. The strategy will be effective in two ways, first the subsidy from Government for seed, fertiliser or irrigation will attract the natural cupidity, to the point of overcoming resistances due to inertia, conservatism and fear. In the second place, the success of the full experiment will be an argument which will not be lost on those who only believe what they see. As this happens, the assistance from Government can be progressively reduced. If this looks too much like business, it is better than gratuitous assistance which the cultivator always suspects, and frequently fails to use. As far as possible, this conditional assistance should be first offered to the poorer cultivators, not only for Socialist reasons, but also because if they succeed, there will be a natural challenge to others above them. The approach is psychological, taking account of the fact that the villager does not know his own good, until he is actually cajoled, insured and presented with it. Any other approach will be unrealistic and uneconomic, with results so small and remote that the agricultural sector will remain a dead weight on the other sectors.



The Island of Minicoy is idyllic in its charms, though a shallow soil and high water-table severely limit its flora. The abundance of coconut trees constitutes at once an adornment as well as the wealth of the island. A view of the palm-fringed foreshore, whose beauty is comparable to the South-sea Islands.

Livestock—Better Breed and Feed

In respect of Animal Husbandry, the Planning Commission records that one-third of the cattle population is superfluous and that the average yield of milk is about a fifth of what it is in other countries. The problem is of breed and feed. Key village schemes, particularly through artificial insemination can upgrade the breed but the process in many places is slow as owners do not bring their animals. In order to break the resistance there may be an insurance scheme by which government may agree to buy the off-spring at attractive prices for their own farms or for sale to others more interested in good cattle. In respect of fool, improvement is necessary and possible both in respect of pastures and fodder. At present it is estimated that pastures do not yield one-tenth of what is possible. In the Chingleput

district, all the owners of cattle were persuaded to lend their bullocks on specified days for a mass ploughing drive, followed by sowing of high yielding grasses. This deserves to be generalised, a stocksman being appointed for a group of villages to take the services of idle animals and to maintain a system of rotational grazing. Anyone not helping in the scheme can be subjected to a cess, with which other labour and cattle can be employed. In respect of stall feeding, an extreme step may be to prescribe that all holdings of a certain size may devote a portion for fodder grasses. A lighter, and perhaps better method may be to exempt from taxes land devoted to fodder grass. There should be no doubt that from the religious as well as the economic point of view cattle have to be fed better. Poultry rearing can supplement the income of the Harijans. The

Travancore method of issuing eggs of approved breeds, in return for two chicks, overcomes the difficulties which the poor have in finding money for a beginning. All these programmes carry elements of subsidy and insurance, without which the community cannot be conditioned to accept change which appears strange and risky.

The movement for more 'Green'

Forests have been shrinking in area and density affecting rainfall, soil conservation and manurial resources. There are large treeless areas everywhere. Attempts at community forests have not been successful, as both cattle and humans are predatory of what is not individual poverty. If treeless wastes, including pastures are to be planted, it is better to leave the ownership of trees to individuals. If this is not attractive, two other courses

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are open, first to subsidize every surviving tree, second to undertake departmental planting. In any case, as the return from trees is not immediate, unless the state shares in the cost of rearing them, most schemes will remain on paper and not on the ground. A simple and cheap Scheme, also tried in Chingleput, to start tree consciousness in the people, was the gift of a banana or lemon sapling to each householder to be planted in his courtyard, to absorb the kitchen water. Again the elements of subsidy and insurance are utilised. As tree growing proves its values, it will acquire its own momentum.

A fish pond in each village.

Fisheries, offer a most valuable food at a cost less than that of grain, it being estimated that an equal area of water can bear fish, three times the food value of grain. The programme can be two fold, first of introducing fish seed in existing ponds, which are inadequately stocked, if at all. The process is a simple one and generally some organisation and finance only are necessary. When the ponds dry, it may be necessary to excavate them in the middle to form a well into which the fish can retire. The second Scheme, proposed by Mr. Davenport, is to excavate a pond in each village for stocking fish on which the poorer classes may subsist when they have nothing else. Provided the pond is located on the watershed and can draw where possible the underground water, the cost involved will be only in the initial excavation, which will be reduced if the earth excavated is used for other purposes like road or brick making.

Village Industries

In industry, the inefficiency of production is more marked, because while nature is an undeteriorated partner in agriculture, industry is burdened without relief by its own obsolescence and disorganization. While in other countries and in our towns, in the last two centuries, techniques have been revolutionised to multiply and diversify output, in the villages there has been no break with practices, centuries old. The labour value of the village artisan is not rated at one tenth of the value of the machine worker. It is no wonder that the population, surplus to agriculture

(Continued on page 15)

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Rural Electrification

Villages Electrified in June 1956

Serial number and name of village.	Taluk.	District.
(1)	(2)	(3)
<i>Pylkura Electricity System.</i>		
1 Madathur	Udamalpet ..	Coimbatore.
2 Peerkadavu	Gobichettipalayam ..	Do.
3 Vadavalli	Do. ..	Do.
4 Koyyanur	Do. ..	Do.
5 Karuna Karapuri	Pollachi ..	Do.
6 Devarandipalayam	Do. ..	Do.
7 Kothavadi	Do. ..	Do.
<i>Mettur Electricity System.</i>		
1 Thethandapatti	Chengam ..	North Arcot.
2 Karungalikuppam	T. V. Malai ..	Do.
3 Kakanampalayam	Tirupattur ..	Do.
4 Pallalakuppam	Gudiyattam ..	Do.
5 Kothamatikuppam	Do. ..	Do.
6 Karuneegasamudram	Do. ..	Do.
7 Chennakuppam	Do. ..	Do.
8 Kilpudur	Do. ..	Do.
9 Anaikattipudur	Do. ..	Do.
10 Mullavady	Wallajah ..	Do.
11 Karivedu	Do. ..	Do.
12 Kalvettupalayam	Erode ..	Coimbatore.
13 Kurukkupatty	Omalar ..	Salem.
14 Vairamangalam	Bhavyani ..	Coimbatore.
15 Navani	Rasipuram ..	Salem.
16 Puduchatram	Do. ..	Do.
17 Kalyani	Do. ..	Do.
18 Ammapalayam	Do. ..	Do.
19 Agraharanattamangalam	Do. ..	Do.
20 Kannurpatti	Namakkal ..	Do.
21 Thirumalaipatti	Do. ..	Do.
22 Sundakkapatty	Krishnagiri ..	Do.
23 Mottur	Do. ..	Do.
24 Athikattanur	Omalar ..	Do.
25 Krishnanputtur	Do. ..	Do.
26 Maramangalathupatti	Do. ..	Do.
27 Ganapathipalayam	Do. ..	Do.
28 Anandagoundampalayam	Rasipuram ..	Do.
<i>Papanasam Electricity System.</i>		
1 Meenakshipuram	Srivilliputtur ..	Ramanathapuram.
2 Sheshapuram	Do. ..	Do.
3 Kulasekaranpatnam	Tiruchendur ..	Tirunelveli.
4 Sivalarkulam	Tenkasi ..	Do.
5 Aladipatti	Do. ..	Do.
6 Kasiyapuram	Do. ..	Do.
7 Nellur	Do. ..	Do.
8 Samathanapuram	Do. ..	Do.
9 Sivagamiyapuram	Do. ..	Do.
10 Arunagiriapuram	Do. ..	Do.
11 Noor Shaibpuram, hamlet of Padika-kasuvaiathan.	Srivilliputtur ..	Ramanathapuram.
12 Thanicayam	Nilakkottai ..	Madurai.

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Serial number and name of village.	Taluk.	District.
(1)	(2)	(3)
<i>Papanasam Electricity System—cont.</i>		
13 Ayyankottai	Nilakkottai. ..	Madurai.
14 Sembugudipatti	Do. ..	Do.
15 Bodinayakkanpatti	Do. ..	Do.
16 Thattanpatti	Do. ..	Do.
17 Neerathan	Do. ..	Do.
18 Vadipatti, hamlet of kottai.	Kulasekaran-hamlet of Madurai ..	Do.
19 Sourashtrapuram, Vandiyur.	Do. ..	Do.
<i>Madras Electricity System.</i>		
1 Amoor	Ponneri ..	Chingleput.
2 Anuppambattu	Do. ..	Do.
3 Arakkambakkam	Saidapet ..	Do.
4 Arumandai	Ponneri ..	Do.
5 Kaliyapettai	Kancheepuram ..	Do.
6 Kannapalayam	Sriperumbudur ..	Do.
7 Kokkumedu	Ponneri ..	Do.
8 Komakkambedu	Tiruvallur ..	Do.
9 Korattur	Sriperumbudur ..	Do.
10 Lakshminarayanapuram	Madurantakam ..	Do.
11 Madiyur	Ponneri ..	Do.
12 Marambedu	Do. ..	Do.
13 Nallur	Madurantakam. ..	Do.
14 Narasingamedu	Ponneri ..	Do.
15 Narasingapuram	Tiruvallur ..	Do.
16 Onambakkam	Maduranthakam ..	Do.
17 Pandur	Tiruvallur ..	Do.
18 Paruthipattu	Sriperumbudur ..	Do.
19 Singilimedu	Ponneri ..	Do.
20 Siruvellore	Do. ..	Do.
21 Sothupakkam	Madurantakam ..	Do.
22 Taduperumbakkam	Ponneri ..	Do.
23 Vadakkupattu	Do. ..	Do.
24 Vazhuthalambedu	Do. ..	Do.
25 Velacheri	Saidapet ..	Do.
26 Vellur	Ponneri ..	Do.
27 Vengal	Tiruvallur ..	Do.
28 Venkatareddipalayam	Ponneri ..	Do.

(Continued from page 14)

drifts to towns seeing no living wage in the decaying village industries. Everyone is concerned with the condition of cottage industries, as their decay creates gaps in the village economy, which hold up its growth. In the Madras State, for many years, a grant of Rs. 500 is available to any one starting a new industry. Various committees try to develop the important industries. Industrial museums and emporia help in marketing. Nonetheless no visible impression is made on the arts and crafts in all villages barring handloom weaving. The International Planning Team laid its finger on one of the main defects "without rationalization, the natural talents of Indian worker and craftsmen are being wasted in a hopeless race against modern technology." Considering the Indian market as one of the

greatest potential markets in the world, the Team recommended technological, financial and marketing assistance. Davenport and Ramy Alexander had spotted another feature, that consumption practices should be actively studied and encouraged, not only that life and encouraged, but that there may be richer but that there may be full employment for the artisan sector. Two features however have not been stressed, though they can reach not only individual craftsmen but the whole economy. The first, which is a lesson from the improvement of handlooms is that production can become steady and strong only when a minimum price is guaranteed. At present most artisans do not know if and at what price they will sell their production, on which not only they have to live, but to find rolling capital for their continued employment. I have therefore been suggesting that even as an

experiment in a small area, and for a limited number of items the State and Co-operative emporia should announce the price and buy all production offered, so long as it satisfies prescribed specifications. No single measure can secure more reasonable prices and uniform quality with accompanying increase in the sales. The prices will be reasonable, because on assured sale, the artisans can avoid the margins they now demand to cover the periods of unemployment. The quality improvement, which can be progressive, will be shown as it will be a condition precedent to acceptance by the emporia. The other feature has been demonstrated by the Brick Kiln Co-operatives in the U.P., which from one in 1948 have risen to 540 in 1954 with a turnover of bricks worth 2 crores., employing 42,000 persons directly and 100,000 indirectly. The lesson is that the largest and the best market for village enterprise is in the village itself, in constructing and ultimately equipping houses, which only have that name now. In every village construction of habitable houses, can provide work for brick kilns, blacksmiths and carpenters in a measure which will slash unemployment and underemployment. As houses have more room and light, the demand will naturally arise for properly equipping and furnishing them. The process will be almost continuous as house pride grows on what it feeds. If we are therefore serious about helping village artisans, these two measures, first guaranteed price and purchase of articles to be sold out of the village and second house construction for articles to be consumed in the village, will have a most quickening effect. Other measures are really ancillary and will follow in many instances as effect from cause.

Minimum interference for maximum results.

What is proposed for reducing inefficiency in production is based on the principle of minimum interference for maximum results, arising from the natural impulses generated. Each of the proposals may be tried in as many villages in each block. If and when they are successful under the varying conditions of different blocks they can be generalized. This method of trial and error with new ideas is the only one which can find living principle for the new framework of village development.

Five-Year Plan

Publicity Week Celebrations



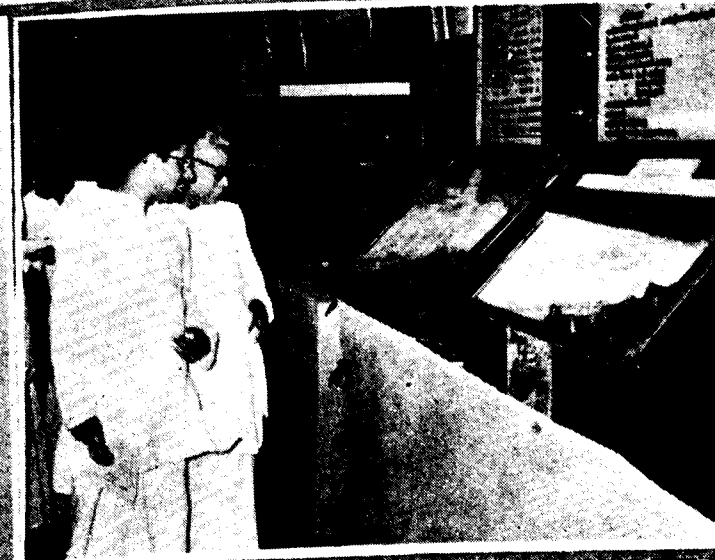
The procession of the officials and non-officials held at Vaideswaran Koil in Sirkali Taluk in connection with the Five-Year Plan Publicity Week Celebrations.



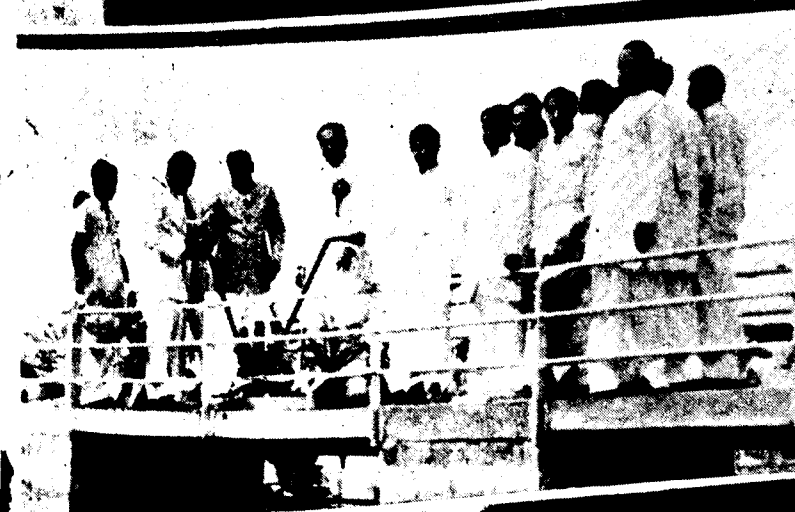
Koilpatti N.E.S. staff enacted the drama "Subichapathai" during the Five-Year Plan Publicity Week Celebrations.

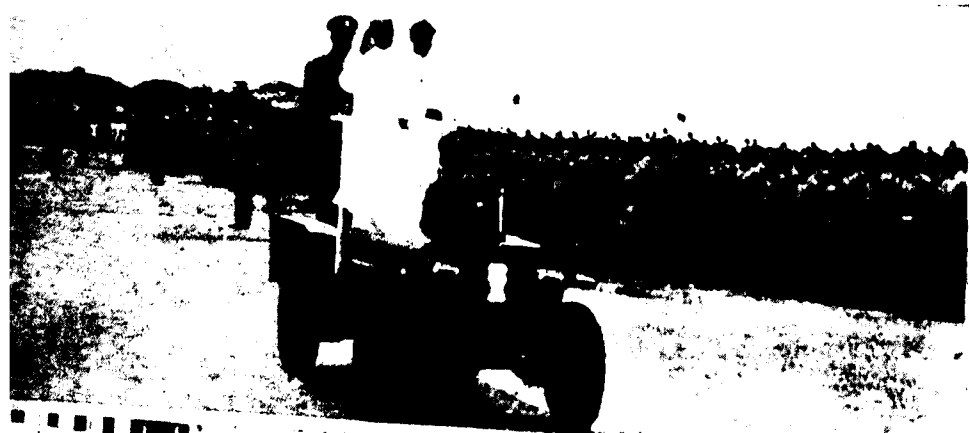
A concerted publicity drive was made in July 1956 to bring home to the people the achievements of the First Five-Year Plan and the targets of the Second Five-Year Plan. In each district the celebration was held for three to five days' duration when all the villages in the district participated. In the Kangayam tracts of Coimbatore district, cattle shows and fairs were the focus of all attention, while in Salem, exhibitions of hand-woven cloth and agricultural implements stole the show. In Tanjore, the contribution of temples was immense. Shramdhan in the cause of public wells and village sanitation and mass spinning formed common features of these celebrations. Schools and colleges played a prominent part in the processions and other attendant regalia. Thus, in these publicity activities (though officially inspired and sponsored), local initiative and talent were given free and full vent. The block development and extension service areas naturally gave full rein to their record of tangible achievements. Through all these the whole gamut of the nation-building departments of the Government were able to put across the improved methods of living, and making a better living by the slender resources of the soil. A Five-Year Plan Exhibition got up by the Information and Publicity Department depicted with pictures and figures, the pace of progress.

SCENES at the opening of the Five-Year Plan Exhibition at Rajaji Hall, Madras.

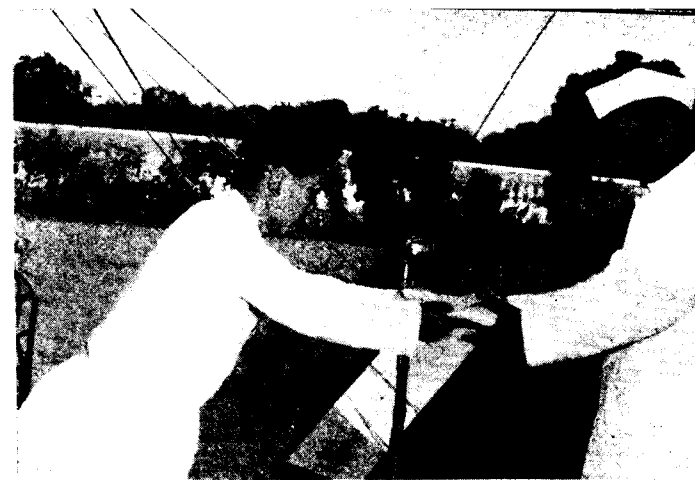


METTUR CANALS SCHEME: The East Bank Canal was thrown open for irrigation last month.





PRESIDENT IN THE CITY



President Rajendra Prasad's visit to Madras last month synchronised with the Independence Day celebrations in which he participated by driving in State and reviewing the parade. He also paid a visit to some of the Social Service institutions in the City, the Integral Coach Factory, Indian Officers' Association and the Fort St. George Museum. He was also given a Civic reception by the Mayor of Madras.



Archæological Excavations at Kunnathur

Revealing Relics of Prehistoric Burials Unearthed

For sometime past, South India has been the focus of archæological activity and archæological excavations are being carried out every year by the Southern Circle of the Department of Archæology, Government of India. This year, the Department undertook the excavation of prehistoric burials at Kunnathur, a village about sixteen miles south-west of Madras, in the Sriperumbudur taluk of the Chingleput district. These prehistoric burials are generally known as *Magalithic monuments* on account of the hugeness of the boulders used in their construction, and form a prominent feature in the basic civilisation of South India.

Kunnathur, overlooking the Chembrambakam tank, (the biggest irrigation tank in the district) is the most fertile and prosperous village in the Sriperumbudur taluk. The antiquity of the place along with the adjoining Kovur goes back to the

early centuries of the Christian era, and the two villages were the birth places of two noted Sangam poets—Kovur Kilar and Kunnathur Kilar. This also happens to be the birth-place of *Arul-moli Thevar*, better known as *Sekkizhar Peruman*, a great Saiva saint of the 12th century. He was the Chief Minister to the Chola Ruler Kulottunga II (1133-1146 A.D.) who conferred upon him the title of *Uttama Chola Pallavarayar*. Sekkizhar was a staunch worshipper of Siva and has compiled the life history of the 63 Saiva saints or Nayanmars entitled *Tiruttondarpuranam* or *Periyapuranam*, which incidentally forms the authentic biography of the Nayanmars. During his last days Sekkizhar also constructed in the adjoining village of Tirunagesvaram, a Siva temple and spent the evening of his life here worshipping the deity. This temple is a replica of the one at Tirunagesvaram in Tanjore district, to which he used to go while under the

service of the King. He attained 'Mukti' at Kunnathur itself and subsequently the house in which he lived was converted into a temple in which his image has been installed



Image of Sekkizhar, from Sekkizhar temple.



A cairn circle, before excavation.

The President was given a warm welcome in Madurai. At Gandhigram he fulfilled a number of engagements including the inauguration of the Extension Workers' Training College and the opening of an Amber Charkha Parishramalaya.

16.D
PRESIDENT'S VISIT TO MADURAI



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Antiquities obtained from the excavations. In the foreground can be seen the earthenware coffin.

and is under worship. Every year for ten days towards the end of May and beginning of June, Tamil devotees celebrate his birth anniversary.

Excavations at this place revealed three kinds of burials, viz.,

- (1) a cairn circle with a central pit,
- (2) a slab cist, and
- (3) a pit entombing a terracotta legged sarcophagus and covered over by a granite slab capstone.

Type 1: In the centre of the big Circle 25 feet in diameter formed by huge boulders, was found a rectangular pit 11 feet by 5½ feet and 8 feet deep. On the three sides of the pit, the natural granite rock surface is visible while the fourth (northern side) is buttressed by a stone revetment warranted probably by a side collapse. From inside this tomb were recovered as many as 40 earthen vessels of different shapes, such as round pots, dishes, conical lids, etc., and iron objects—weapons of war and peace—viz., daggers, bar celts and axes.

Material Culture

In the construction of the burial chamber of Type 2, large granite slabs have been used which are buttressed with boulders on the outside and the whole is bounded by a stone circle

in this. It is interesting to observe that these bracelets were made in coils.

The material culture of the people who practised this mode of disposal of the dead is quite revealing. They used three kinds of coloured pottery, viz., the pure black, the pure red and the black-and-red variety. The last type is produced by a special technique known as the 'Inverted firing' technique, which is a special feature of this culture. Weapons of war and implements of daily use are products, primarily, of iron although the other metals like copper were not unknown to them.

A Baffling Problem

When exactly these people lived in South India is a problem baffling the archaeologists. Two hundred B.C. is the tentative date given by archaeologists who conducted excavations, particularly at Brahmagiri near Bellary in Mysore State. But, a longer time would however be needed for the dispersal of this robust Iron Age civilisation coming from the West towards South India and to spread all over the peninsula in a variety of megalithic burials, assimilating different customs. A time elapse of perhaps 1,000 years would not be an over estimation. This conforms to the period when the Iron Age civilization in Europe was at its zenith.

(Contributed.)



Some of the antiquities obtained from the megaliths.

Social Service Through Soil Conservation

Contour-bunding by Cadet Corps

Every year each unit of the N.C.C. held its own Camp which was devoted exclusively to training and social service formed part of a minor item of Camp work. This year, there was a combined cadre and Social Service Camp, where training was considered necessary to social service. The fourth annual camp of H.R. No. 2 Circle N.C.C. was held near Bhannari Temple, eight miles away from Sathiamangalam in Coimbatore district, for two weeks. The object of the camp was to execute soil conservation works as a kind of social service.

The Officers and cadets of the N.C.C. executed contour bunding works in the Kothamangalam Fuel Series Soil Conservation Scheme. The scheme area originally formed part of a Fuel Service which was reservedly the Forest Department. With a view to afford relief and compensation and to help resettlement of the displaced ryots whose lands were submerged by the Lower Bhavani Reservoir, an area of 4,046 acres of reserved forest has been disreserved. These lands except a few hillocks and stream porambokes were assigned to the affected ryots. The

area has been completely cleared of forest and vegetative cover. There are neither shelter belts nor wind belts of natural trees. As such, the whole area is exposed to the vagaries of erosion by wind and water.

The soil conservation section of Madras Agricultural Department has aimed at executing suitable soil conservation measures with contour-bunding as the main feature over an area of about 3,000 acres of cultivable lands. Construction of waste weirs, at critical points to drain off excess rain water, plugging gullies by constructing check-dams and afforesting stream proposed. It is also proposed to reafforest the remaining area and to dig contour trenches wherever necessary with a view to protect the adjoining agricultural lands against the hazardous effects of flood and wind.

Two-thirds of working hours were devoted to contour-bunding works in the area. It is estimated that the cadets had put in about 30,000 man-hours and completed over 100 acres with contour bunds which include much earth-work excavation.



Inauguration of the camp.

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Facts and Figures

During 1955-56, 13.63 lakhs tons of iron ore, valued at Rs. 6.27 crores, was exported from India.

Export cess on tea collected in 1955-56 amounted to about Rs. 1,58,75,976 compared with Rs. 1,28,52,580 in the previous year. This excludes cost of collection.

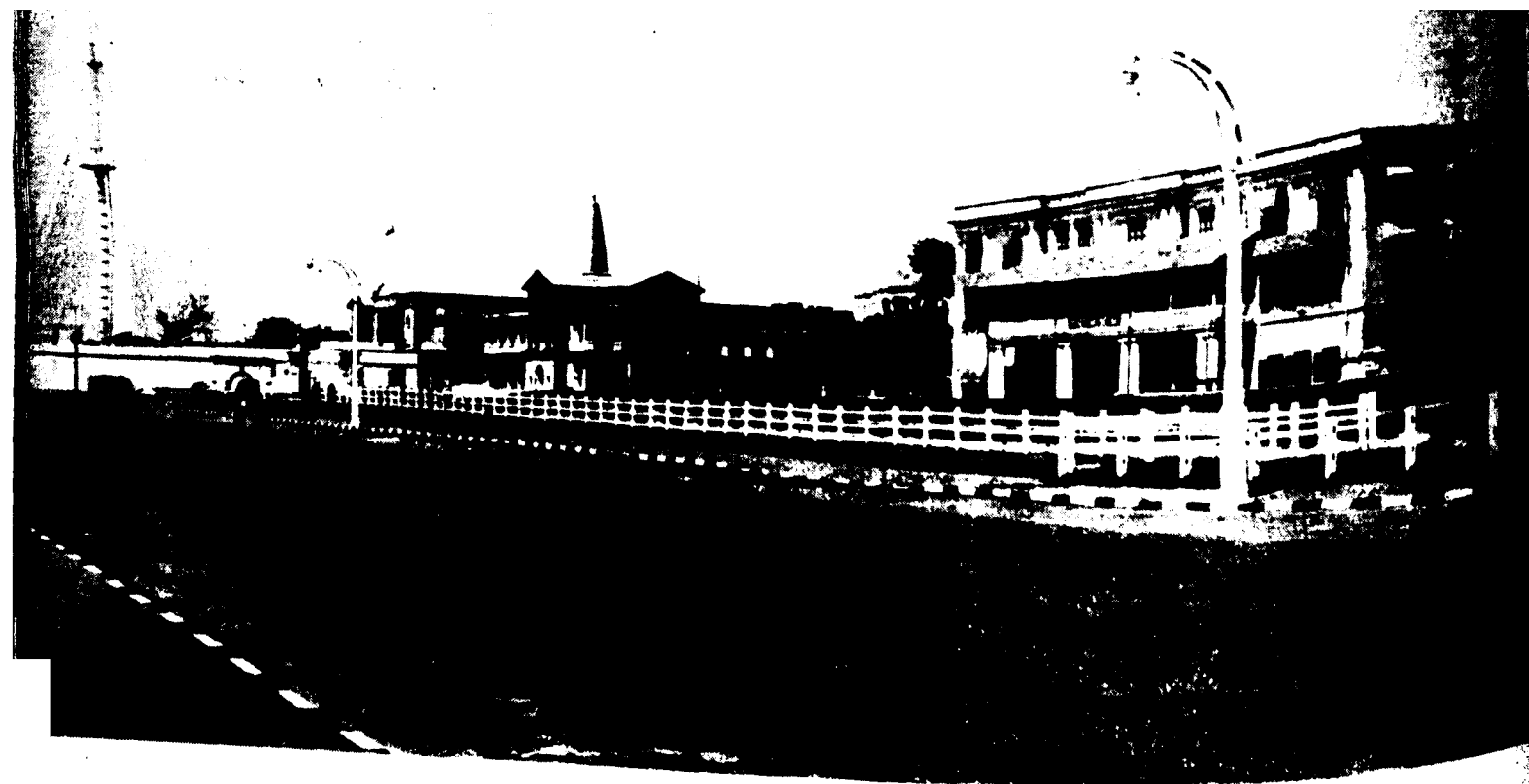
Cement machinery of the value of Rs. 33,59,960 was manufactured in India during 1955.

One hundred and fifty-nine graduate engineers have so far been selected for training abroad as steel technicians. Seventy-nine of these have already left for West Germany.

One hundred light houses are proposed to be built during the Second Five-Year Plan period.

Situation Required

The Ex-patients of the Amrit Nagar Colony, Government Tuberculosis Sanatorium, Tambaram, require employment as Compositors, Machinemen, Watchmen and Attendants. Persons requiring their services are requested to address the Superintendent, Government Tuberculosis Sanatorium, Tambaram.



Fort Museum inside Fort St. George with Flag Mast, Secretariat and other buildings.

Fort St. George Museum

SRI K. R. VIJAYARAGHAVAN, Curator

IN February 1948, the Fort St. George Museum held its opening exhibition to coincide with the Fifth Session of the Central Advisory Board of Archaeology. The Museum was organised as a result of Fort St. George being declared a National Monument. The Museum was founded to house the relics and the movable antiquities associated with the Fort and its history. Since then there has been a steady addition to the initial collection which has enabled the Department recently to organise three new sections, so that the number of galleries has now increased from two to five.

The Museum is appropriately located in an ancient building facing the Bay of Bengal inside Fort St. George, occupying a prominent place among the important monuments inside the Fort. Along with the monuments the collection affords much scope for the study of the growth of this early British settlement and of the history of South India during the past three centuries.

The Museum is open on all days from 10 a.m. to 5 p.m.

History.

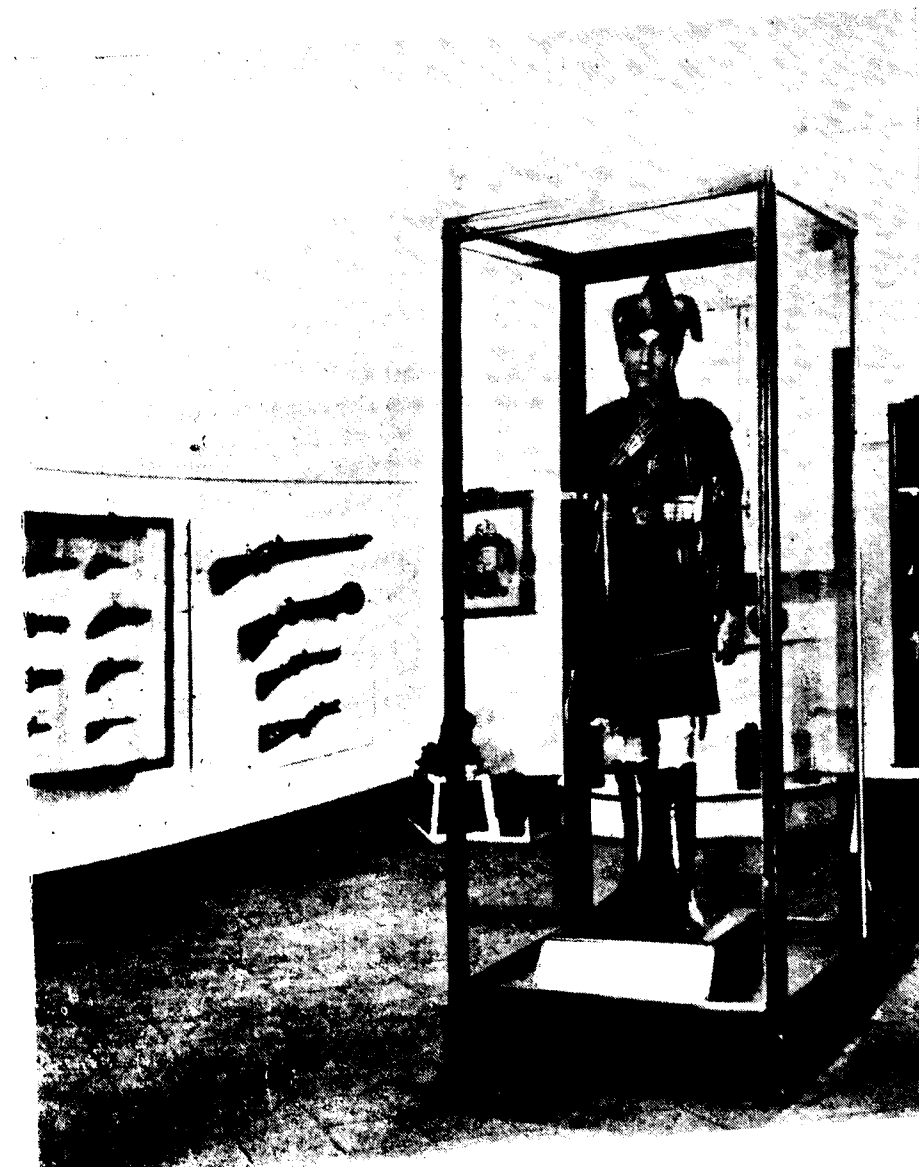
The Fort St. George Museum owes its origin to Lt.-Col. D. M. Reid, Commander of the late Madras Guards. Early in 1944 he suggested that on the eve of Indian Independence, the historic buildings inside Fort

St. George, including its fortifications should be protected under the Ancient Monuments Preservation Act and that a Museum should be established to house the connected relics. Though Fort St. George is not the earliest British settlement in India, it constitutes their first territorial acquisitions with the exception of the insignificant fort at Armagon, near Pulicat, which had been acquired a few years earlier in 1626. The British Infantry Officers' Mess Building was the obvious choice for locating the Museum and through Col. Reid's help all antiquities relating to the Madras Guards (disbanded in 1947) which had for a long time been stationed inside the Fort and St. Mary's Church, the oldest Anglican Church in the East, which was also the garrison church,

were transferred to this building. The then Governor of Madras (Sir Archibald Edward Nye) kindly presented the Regimental colours of the disbanded units, some mortars and porcelain pieces preserved in Government House. They were displayed in the Long Hall (first floor) and formed the general section of the Museum. With the consent and co-operation of the Superintendent, arms and armour relating to the period were transferred from the Government Museum, Madras, arranged in one of the halls of the ground floor to form the nucleus of the present "Hall of Arms". The Museum thus opened with these two galleries.

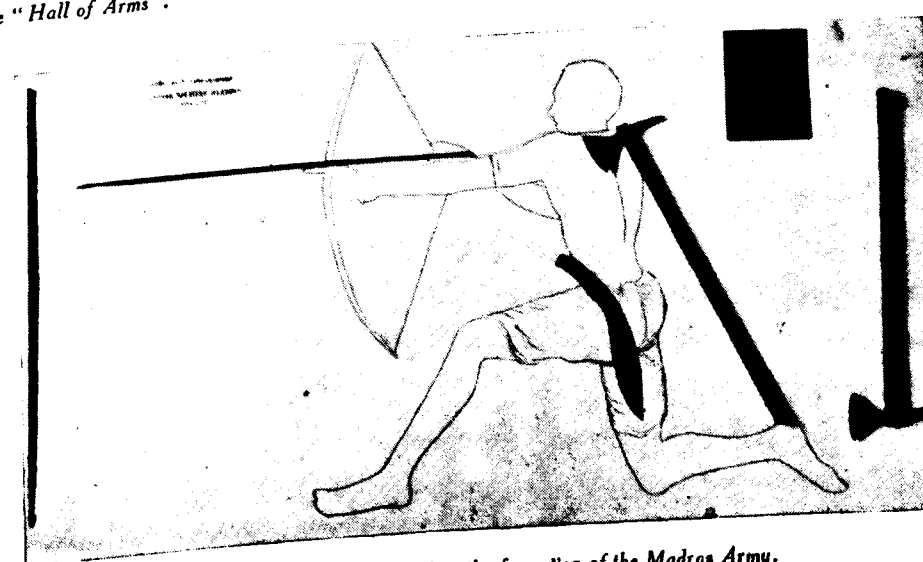
Building

The ancient building in which Museum is housed was constructed in



General view of the "Hall of Arms".

as the 'Exchange'. From the early days of this British settlement, the adjacent 'Sea Gate' was the general resort of the merchants. Through the efforts of Peter Massey Cassin, a free merchant of Madras, a separate was constructed near the shore where they could themselves expose their merchandise for sale by sample as is the custom in most trading cities in Europe. The lower part of the building was made shell-proof, according to the requirement of those days. The apartments in the ground floor were used at different times as the Auction Room, Subscription Library, and the Madras Bank. The 'Long Hall' on the first floor served successively as the 'Exchange', the Reception Hall and the Banqueting Hall.



"The Madras Soldier" before the formation of the Madras Army.

Since 1861, the building became the Officers' Mess of the British Regiment stationed in the Fort. It is interesting to note that the first Light House of Madras was constructed on the top of this building, as early as 1796.

Hall of Arms

The history of artillery in India really begins in 1526, when Babur invaded North India from Kabul and defeated Ibrahim Lodi, the Sultan of Delhi at Panipet. Babur alone had cannon which he called his 'Feringhi Pieces' and his victory was mainly due to these weapons which till then were unknown in India. The early Indian guns were very crude, mostly of iron bars welded and bound by iron rings or iron cylinders with brass cast round them and the art of casting was not well established in this country before the middle of the 18th century. The Museum artillery pieces illustrates some of these early types and more are to be seen on the Fort ramparts opposite the building.

This collection of arms and armour provides an attractive introduction to the historical relics of the Museum for they are peculiarly adaptable to effective display. Moreover this 18th century hall furnishes a most suitable contemporary background for these weapons of war, regimental colours, uniforms and paintings.

An effective innovation in the new display is the use of large size sketches to illustrate the handling of obsolete weapons. A large scale line-drawing of a 'Madras Soldier', with the actual

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weapons that were used fixed to the body of the drawing in the positions in which they were carried presents the 'Madras Sepoy' before the formation of the Madras Army, when the 'Sepoys' used whatever weapons they could collect and dressed as they chose. The Madras Army was later reorganised into a well disciplined and properly organised force by Stringer Lawrence, who also commanded the East India Company's European forces. (His portrait is in the Long Hall on the first floor.) Along with this group of early weapons a list giving the ranks and scales of pay for European and Indian Officers and for other ranks is displayed. It is interesting to note that the rank of 'Major' was the highest in the Company's Army which was slowly to dominate the whole sub-continent. By the same method are illustrated the purpose and use of the 'Pike' and a sketch of a 'Pikemen in action' shows how the musketeers of the 18th and 19th centuries took shelter behind the Pikemen to protect themselves from the attack of the charging enemy cavalry when they had to pause for reloading their spent muskets.

Guns, grape-shots and other large objects stand free while small weapons such as daggers, knives and spear heads are displayed in cases. The daggers are so displayed that a visitor can view every portion clearly from hilt to point. Match-locks, flint-locks, percussion-locks and modern rifles are shown in historical sequence interspersed with a wide range of other unusual types illustrating the evolution.

Perhaps the pride of place in this section should be given to the graphic oil-painting depicting the 'Storming of Seringapatam', the famous engagement of 1799 which resulted in the death of Tipu Sultan and the annexation of the greater part of Mysore by Richard Wellesley. This was painted by Robert Ker Porter, immediately after the battle basing his work upon eye-witness accounts. In the picture can be seen many of the weapons displayed in this section actually in use. The painting is of interest in the study of the military uniforms also.

Prints Section

The Museum collection of 'Prints' began with a loan from the Madras

Government of over forty coloured engravings by the English artists Thomas and William Daniell. Recently some further views by the same artists were acquired from the Circuit House at Madura and to these were added acquatints from Coe. Ward's drawings purchased from a local collector. The Governor of Madras was also kind enough to present the Museum with some prints relating to Madras from the Government House collection. Many of the pictures are examples of finest work of these artists of the 18th century and the more recent acquisitions made the collection large enough to merit their separate display. A special gallery for the Prints was therefore opened in July 1954 next to the 'Hall of Arms'.

From the engravings and acquatints visitor gets a general idea of the historical range of the Museum. The exhibits start with early views of Fort St. George when the English factors and free merchants first settled in Madras in the days when the sea dashed against the fort walls within a few feet of the Museum. The sea is now almost half a mile

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away. Next to these are displayed other views of the Fort, Black Town and St. Thomas Mount. The series ends with Tanjore, Madura, and Tinnevely, the southern most town represented in our collection. The views exhibited are of considerable historical interest, perpetuating the authentic aspects of these places as they were, some two centuries ago.

In one of the Daniell's prints can be seen the colonnade constructed by Governor George Morton Pitt (1730-1735) extending from the sea gate of Fort St. George to the Fort Square supporting a terraced roof and forming a sheltered way from the sea gate. The thirty-two polished columns of black Pallavaram gneiss were carried off by the French in 1746 and set up in Pondicherry. After the fall of that place in 1761, they were brought back to Madras and re-erected in their original position. In 1910 the colonnade was dismantled to make room for the new Council Chamber in the Construction of which the best preserved stones were incorporated to form the facade. Two other interesting and rare prints are the views of the Bay of Bengal almost touching the Fort, and British Officers and their

wives being helped to land and embark by the Madras fishermen. Since Madras had no natural harbour, the ships used to anchor at a distance and the merchants with their commodities had to reach the Fort in the small 'Masula' boats. These boats were fashioned in the same manner as today planks sewn together with coir twines, and caulked with coconut fibre.

The General Section

Antiquities such as coins, medals, porcelain, manuscripts, silverware and the 1820 model of Fort St. George are exhibited in two halls to the right as the visitor enters the Museum.

Coins.—The coin collections of the Fort Museum are spread out in two cases at the entrance. They represent most of the important South Indian issues during European period. The Madras Mint is as old as Fort St. George itself. The original grant of the Nayaks contained a provision that the Company could establish a mint of their own to strike coins. The three Swami Pagoda (Gold) may be deemed as the first coin minted here. Gold Panam of an inferior alloy was also struck and were replaced by silver

Panams in 1688. This is the earliest date when silver coins began to be struck here. Silver Rupees came to be minted only after 1692. Till 1735 the Three Swami Pagoda (with Vishnu and his two consorts on the obverse and a granulated surface on the reverse) was the recognised coin of the Settlement. About this time a new Pagoda was introduced. This Madras Star Pagoda (with Vishnu and his consorts on the obverse and a granulated surface with a star of five rays on the reverse) was the official coin of the Company till 1807, when the 'Madras Rupee' became the standard currency. The copper coins were 'Cash' and 'Dudoo' or 'Dubbu'. Eighty cash went to form a Panam and ten a Dudoo. All these coins were abolished in 1837 when the coinage of British India was unified and standardised.

In addition a few coins minted in the Bengal and Bombay Presidencies and others struck by the other European powers such as the Portuguese, Dutch, French and Danes trading in South India, are also displayed.

East India Company Medals.—Early medals awarded by the East India Company to their officers and native Sepoys can be seen in a revolving



Madras Landing. C.1850.

Papanasam Falls in Tinnevely District—By Thomas Daniell.



show-case. This case was specially designed for the medals so that visitors might conveniently see both their obverse and reverse sides.

To the East India Company we owe the present system of awarding medals to every soldier who took part in a

campaign irrespective of his rank. Prior to this decorations were awarded only principal commanders. The Company introduced several changes in the medallic art itself. All their awards were circular in shape while earlier ones were oval. Also it was the Company which originated the device of

engraving pictures of armed soldiers and stormed fortresses on their medals.

The ceremony of awarding medals was performed with due solemnity befitting the honour due to such worthy persons. They were paraded before the Governor, usually at Bombay and at times before the Court of Directors in London. The Company however had no authority to decorate regular officers and men of the King's Regiments.

The 'Serlingapatam Medal' which was awarded for the successful storming of this stronghold of Tipu Sultan (painting displayed in the 'Hall of Arms') was the only Company Medal awarded to all soldiers whether of the King's Regiments or of the Company's. On the obverse side of the medal is represented the storming of the breach with the meridian sun denoting the time when the attack was begun. The medal was awarded in gold to high ranking officers, in silver gilt to Field Officers, and in silver to Captains and Subalterns, while the non-commissioned officers received bronze, and the privates tin medals. The Deccan Medal is the first East India Company award still extant. It was used for nearly all the major campaigns fought in the Deccan during the Governor-Generalship of Warren Hastings: Pollilore or Pullalur (September 1780), Porto Novo (July 1st, 1781), Sholingar (August 1718), Negapatam (November 1718) Trincomolin (January 1782), Coimbatore (November 1783), and the Treaty of Mangalore (March 1784).

The other important decorations displayed in this show-case are: (1) the Mysore Medal awarded for the Third Mysore War, won by the English over Tipu Sultan in 1792, under the Generalship of Lord Cornwallis, (2) the Egypt Medal of 1801, (3) the Ceylon Medal of 1803, (4) the Java Medal awarded in 1811 for the expedition led by Sir Samuel Auchmuty, the Commander-in-chief of Madras, accompanied by the Governor-General Lord Minto and (5) the Indian 'Mutiny'. The 'Mutiny' Medal in full had five bars for Delhi, Defence of Lucknow, Relief of Lucknow and Central India.

Porcelain.—The Company and Arcot porcelain pieces occupy on behalf of this hall. Most of them were manufactured at Canton (China) for the East India Company and the Nawabs of the Carnatic, according to designs sent



Major Stringer Lawrence and Muhammad Ali, Nawab of Carnatic, by George Chinnery.

by the Company. Some were made in Worcester by the Chamberlains of Worcester. The collections include fruit basket, vegetable and curry dishes, hot plates and oval plates. The Company pieces bear the Coat-of-Arms and motto of the East India Company and the inscribed Arcot pieces give details about the Nawabs and Begums for whom they were made and the year of manufacture.

Silverware.—The visitor now enters the next room which also forms part of the 'General Section'. The inscribed silver communion vessels displayed in a wall case originally belonged to three of the oldest churches in South India: St. Mary's Church in Fort St. George, Tranquebar Zion Church and Pulicat Church. St. Mary's Church, inside the Fort St. George was constructed by the tireless efforts of Governor Streyansham Master (his portrait can be seen on the first floor), the architect was William Dixon, on whom as chief gunner all engineering duties devolved. The church, consecrated on the 28th of October 1680, is the oldest Anglican Church in the East. The collection of inscribed silver communion vessels, numbering fourteen in all, consists of almsdishes, flagons, cups and a chalice. It includes an alms dish or plate presented by Governor Elihu Yale (1687-1692) and bear his name and arms engraved. His name has been perpetuated by the now famous Yale University in the United States of America. (His portrait is also exhibited in the 'Portrait Gallery'.) He was born at Boston and on retirement gave the largest donation in the form of books and pictures which realised £560 for the Collegiate School of Connecticut, during its early days. The authorities, in gratitude, named the school Yale College, which later developed into the Yale University.

Records and Manuscripts.—Nearby can be seen the two registers of St. Mary's Church recording baptisms, marriages and burials in the church. They form complete records from 1680 to 1786, except for the short interval between 1746 and 1749, when the fort was under the French. Elihu Yale, who had donated fifteen pagodas for the construction of the church was the first to be married here. Another noteworthy marriage solemnised in the church was that of Robert Clive with

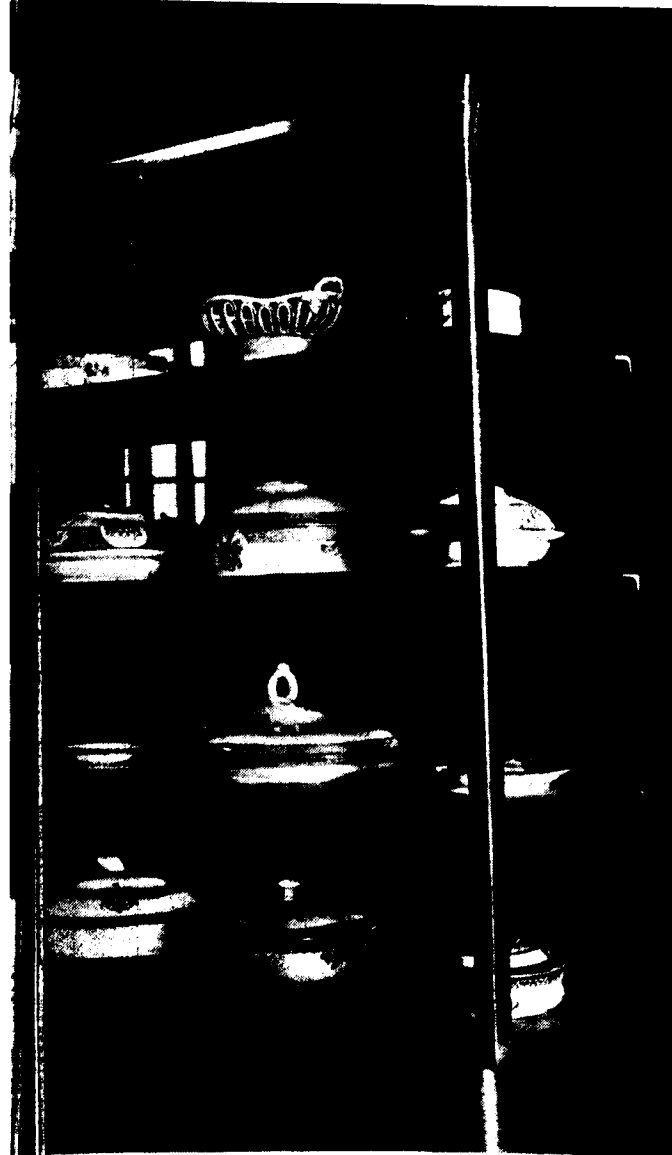
Margaret Maskeyline (13th February 1753) by the famous priest, Fabricious.

Other manuscript records are exhibited in a revolving show-case nearby, and include original letters written by Lord Pigot, Robert Clive, Arthur Wellesley (later Duke of Wellington), Lord Cornwallis, Lord Bentinck and

others. In addition to these letters, there are two plans, one of which is that of Plassey as drawn by Clive before that famous engagement. In the next case can be seen the visitors book of St. Mary's Church which records the autograph of George V and Victoria Mary. The King signed himself "George P" (George Prince) since



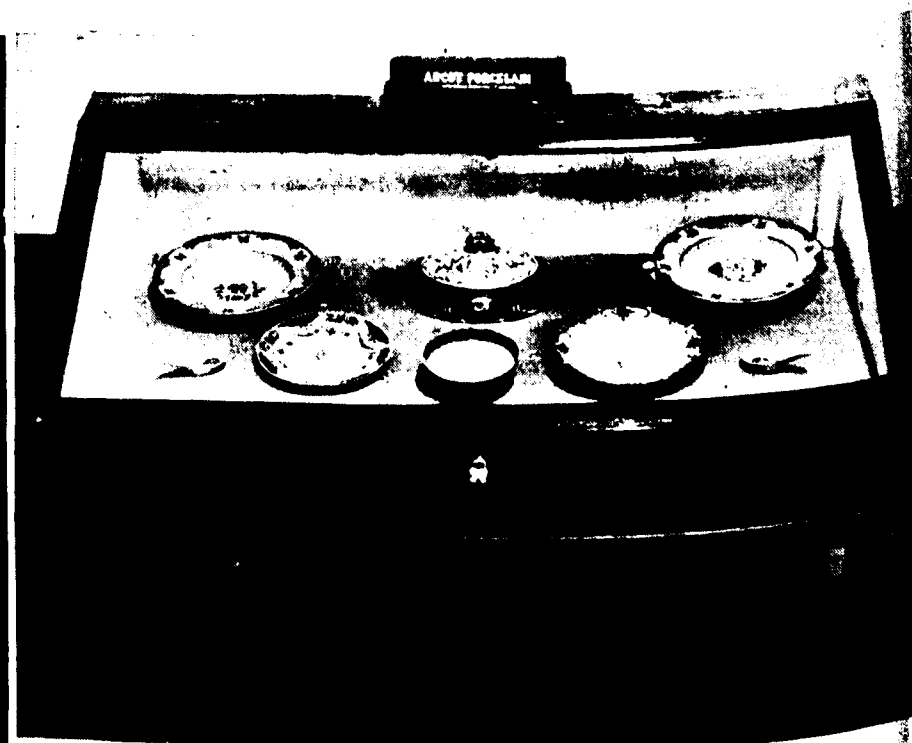
Sir Arthur Havelock by Ravi Varma and Raja Raja Varma.



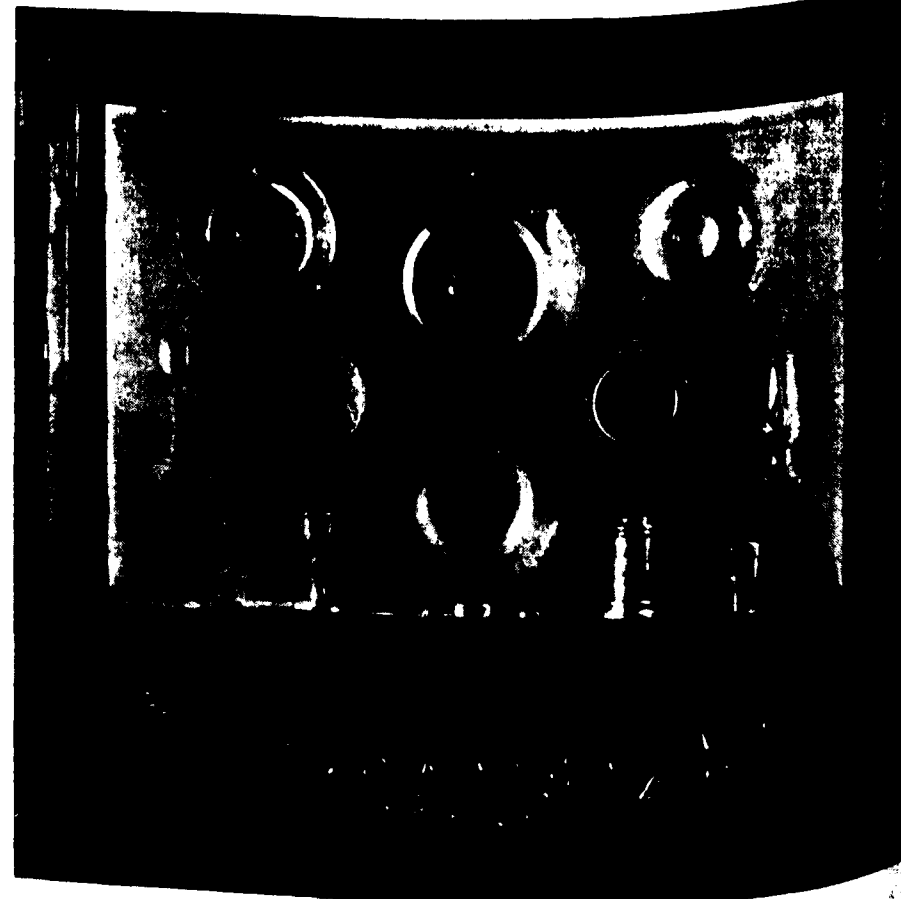
East India Company porcelain of the 18th century.

he came to Madras in 1906 as Prince of Wales. It was after this visit that Black Town was named George Town.

The Model of Fort St. George.—At the northern end of the same hall can be seen the large-scale wooden model of Fort St. George, which was displayed formerly in the room opposite St. Mary's Church. It represents the fort as it was between 1820 and 1865. During the 18th century the palanquin was the chief mode of conveyance. The number of bearers and attendants depended upon the status of the individual. From the contemporary views in the Prints Section we can have a graphic idea of the different types of palanquins used and how they were carried.



Arcot porcelain (18th century).



Silver communion vessels of the 17th and 18th centuries from St. Mary's Church (Madras), Pulicat Church and Tranquebar Church.



General view of the Portrait Gallery.

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Marble Statue

The huge statue of Lord Cornwallis greets the visitor as he approaches the steps leading to the first floor. It is a unique piece of workmanship by the famous British sculptor Thomas Banks. This fine sculpture, which was sent to India in 1800, represents the Governor-General in the robes of a peer over military uniform. On the cylindrical pedestal in bas-relief can be seen Lord Cornwallis receiving as hostages the two sons of Tipu Sultan, Princes Abd-ul-Kilak and Musa-ud-Din, boys of ten and eight years respectively in accordance with the treaty signed on the 15th of March 1792, at the end of the Third Mysore War. Figures of the Angel of Peace and Britannia adorn the other two sides; the fourth side carries an inscription describing the erection of this statue to commemorate the visit of Lord Cornwallis to Madras.

The Portrait Gallery

The only section on the first floor is the 'Portrait Gallery', which is the latest addition to the Museum and was opened in March 1956. It owes its existence to the generosity of Shri Sri Prakasa, Governor of Madras, who presented all these large paintings in oil to the Fort Museum from Raj Bhavan, Guindy and Ootacamund. Herein are the portraits of men and women, who made history during the last three centuries. Apart from the few Kings and Queens of England and the early Governors of Madras, the collection includes some portraits of the Nawabs of the Carnatic. They are also works of well-known British artists such as Thomas Day, Samuel Scot, Francis Grant, George Hayter and Allan Ramsay.



Marble statue of Lord Cornwallis by Thomas Banks.

Historically speaking, the most important paintings in this hall are those of King George III and Queen Charlotte. These portraits by Allan Ramsay were the first sent by the East India Company to their settlements in the East and they reached Madras between 1762 and 1767. The portraits of Stringer Lawrence, Muhammad Ali, Robert Clive and Queen Victoria feature frequently in popular history books. The installation of Nawab Ghulam Muhammad Ghaus Khan in 1842 by Lord Elphinstone, Governor of Madras is another painting adorning the wall of this hall. This is one of the few original historical paintings of this period still existing. Frederick Christian Lewis painted it in 1842.

The portrait of Sir Arthur Havelock by Ravi Varma and his brother Raja Varma is of great local interest, as Ravi Varma was one of the few really great Indian portrait painters and his younger brother and collaborator received his training from him. Sir Arthur stands on a verandah of Government House, his body turned slightly to the right. His right hand remains unoccupied while his left, concealed by the robe, rests on his hip. He wears full diplomatic dress with sword. On the left of the picture is a gilt chair and towards the right is a verandah-column on a square pedestal.

The coffered ceiling and ornamental dado, the glazed bay-windows with wooden balustrades of this 'Long Hall' forms an appropriate setting for these contemporary paintings. A tablet to commemorate Sah Gopal Das, who played such a large part in the economic affairs of the South has been appropriately erected in this hall, for so long the Company's Exchange and Bank, by his direct and lineal descendant Shri Sri Prakasa, Governor of Madras.

Memoirs of the Agriculture Department

The publication contains detailed information on the work done by the Madras Agricultural Department from its inception in all fields of activity. The sale price has been reduced from Rs. 36-10-0 to Rs. 22-8-0 per copy.

The copies can be had from :

The Superintendent, Government Press,
Publication Branch, Mount Road, Madras-2.

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The Hindu Succession Act—Salient Features

The Hindu Succession Act, 1956, will apply to all Hindus—a term which is defined to embrace within its orbit persons professing the Hindu, Buddhist, Jain or Sikh religion and to all other persons not professing the Muslim, Christian, Parsi or Jewish faith unless any such person is able to prove that he was never governed by the Hindu Law of Succession before the commencement of this Act.

The question of codifying the Hindu Law of Succession has been engaging the attention of the Government since 1941 when a Committee was appointed for examining the existing law and removing any injustice that may have been done to the daughter. The Committee suggested the codification of the entire Hindu law and the Rau Committee's Code of 1947 was the result of that suggestion.

The Rau Committee's draft underwent several changes in the course of its examination by the Provisional Parliament and for the purpose of facilitating the passage of the Code in Parliament, Government is now getting the Code through in parts. The Hindu Marriage Act, 1955, dealing with the law relating to marriage and divorce among Hindus, was the first instalment of the Code and it became law on the 18th of May 1955. The Hindu Succession Bill, 1956, became an act on June 17, 1956. The remaining parts of the Code are in varying stages of progress.

Two Systems

Succession is the most important and at the same time the most complicated branch of Hindu Law. At the present moment there are two broad systems of inheritance in Hindu law, namely, the Mitakshara system and the Dayabhaga system. The Dayabhaga system prevails in Bengal, and the Mitakshara in other parts of India. To this may be added a minor system of inheritance which prevails in the south-west coast of India, known as the *Marumakkattayam* and *Aliyasantana* laws of inheritance.

The Mitakshara law recognises two modes of devolution—one by survivorship and the other by succession. The rule of survivorship applies to

joint family properties or what are technically known as co-parcenary properties, while the other applies to self-acquired properties or properties held absolutely by the last owner.

The Dayabhaga school recognises only one mode of devolution, namely, succession. It does not recognise the rule of survivorship even where property may be held jointly by several persons. Again, the determining factors for deciding upon who is to succeed depends upon proximity of relationship in the Mitakshara law and on spiritual efficacy in the Dayabhaga law.

Further, there are various subdivisions of the Mitakshara law like the Mithila school, the Bombay school, the Banaras school, the Madras school and the Mayukha school and the order of succession to the separate or self-acquired property of a Hindu male intestate varies in each of these subdivisions. Daughters do not inherit at all in any system except in certain special circumstances. In the Mitakshara co-parcenary no female can be a co-parcener and on the death of a male co-parcener the property devolves not by succession but by survivorship on the remaining male members of the co-parcenary.

Limited Rights

So far as females are concerned, in the limited number of cases where they do inherit property as widows and so on, they get an estate limited for their lives and on their death the property goes to persons who are known as 'reversioners'. The limited estate has been the cause of ruinous litigation in many cases because of the right vested in reversioners to challenge transaction entered into by such limited owners.

It is only in the *stridhana* property that a female had a full right. But acquisitions by way of *stridhana* property are by their very nature very limited. Property inherited by a woman, which generally would be the main source for a woman, never could become her *stridhana* property except in the Bombay school. The order of succession with respect to *stridhana* property is also not uniform. The order varies according as the intestate was married or unmarried; according as she was married in an approved or in an unapproved form; according to the source from which the *stridhana* came; and above all the rules of descent vary from school to school.

The matriarchal system of inheritance obtaining in the south-west coast of India which has been codified to a large extent by laws passed by the Madras Legislature and the Legislatures of the erstwhile princely States of Travancore and Cochin provides for inheritance in which descent is traced mainly through females. But unlike the rest of India that system provides for equal rights for men and women, and daughters share equally with the sons.

Uniform System

The Hindu Succession Act, 1956, aims at evolving a fairly uniform system of law for the entire country with respect to intestate succession and the list of heirs has been rationalised and may be said to be based on the love and affection theory.

The Hindu Succession Act, 1956, will apply to all Hindus—a term which is defined to embrace within its orbit persons professing the Hindu, Buddhist, Jain or Sikh religion, and to all other persons not professing the Muslim, Christian, Parsi or Jewish faith unless any such person

is able to prove that he was never governed by the Hindu law of succession before the commencement of this Act.

Scope of Act

The Act regulates succession to all properties in respect of which a Hindu male or a Hindu female may have died intestate. These are, however, certain exceptions of a minor character in respect of which the Act does not apply and these are—

(1) Any property succession to which is regulated by the Indian Succession Act by reason of the provisions contained in section 21 of the Special Marriage Act. This means that if two Hindus marry under the Special Marriage Act, succession to their property and to the property of the issue of such marriage will be regulated by the Indian Succession Act;

(2) Any estate which descends to a single heir by the terms of any covenant or agreement entered into by the ruler of any former Indian State with the Government of India or by the terms of any enactment passed before the commencement of this Act that is to say the rule of primogeniture is being recognised in a very limited class of cases;

(3) Properties in respect of which a Trust has been created by a law made by the Maharaja of Cochin immediately before the integration of that State with India.

It may also be mentioned that nothing contained in the Hindu Succession Act will have the effect of overriding any law passed by any State Legislature which makes provision for preventing fragmentation of agricultural holdings or for the fixation of ceilings or for a special method of devolution in respect of tenancy rights in holdings.

Interest in co-parcenary

Subject to the above exceptions, the Act regulates succession to all kinds of properties of a Hindu intestate. The property of a Hindu male may consist of his own self-acquired property or an interest in a Mitakshara co-parcenary. In the case of an interest in a Mitakshara co-parcenary property a special rule is laid down by which the interest of the deceased is defined as meaning the share in the property which would have been

allotted to him if there had been a partition immediately before the death of the deceased, and the fact that under some local law or the other the deceased had no right to claim partition is made immaterial for the purpose of determining the share. By another provision it is also made clear that if a member of a co-parcenary had separated himself from the co-parcenary before the death of the deceased he will not be able to claim once again an interest in the same co-parcenary property. The interest of a deceased Hindu in a co-parcenary property will divide in the same manner as his self-acquired property under this Act.

Primary heirs

The heirs to succeed to a male Hindu are specified in two classes in the Schedule to the Act. The primary heirs who would take the property of a deceased Hindu male on his death are four in number, and they are son, the daughter, the widow and the mother, and they all share equally.

If, however, a son had pre-deceased his father, his widow and his sons and daughters will take the share which would have gone to the deceased equally between themselves. Similarly, if a daughter had pre-deceased the father, her son and daughter would take the share of the deceased equally between themselves.

If, again, both a son and his son had pre-deceased the intestate, the widow of the pre-deceased son of the pre-deceased son, the son of the pre-deceased son of the pre-deceased son, and the daughter of the pre-deceased son of the pre-deceased son will take the share that would have fallen to that branch equally.

All the heirs mentioned in the three preceding paragraphs are put in class I as the first preferential heirs and their total number is 12, but grandsons, grand-daughters and great-grandsons come in under the doctrine of representation only in the absence of their parents and it is therefore unlikely that in any case all the 12 heirs will succeed simultaneously.

Class two heirs

Failing heirs in class I, heirs in class II will succeed in the order mentioned therein, and they are as follows:—

I. Father.

II. (1) Son's daughters' son, (2) son's daughter's daughter, (3) brother, (4) sister.

III. (1) Daughter's son's son, (2) daughter's son's daughter, (3) daughter's daughter's son, (4) daughter's daughter's daughter.

IV. (1) Brother's son, (2) sister's son, (3) brother's daughter, (4) sister's daughter.

V. Father's father; father's mother.

VI. Father's widow; brother's widow.

VII. Father's brother; father's sister.

VIII. Mother's father; mother's mother.

IX. Mother's brother; mother's sister.

In this list, references to a brother or sister do not include references to a brother or sister by uterine blood.

Among the heirs specified in class II, those mentioned in the first entry will be preferred to those mentioned in the second entry, and those in the second entry to those in the third entry and so on in succession. The heirs in the same entry will share equally.

Other heirs

In the absence of heirs mentioned in class I or class II of the Schedule, persons who are related to the deceased by blood or adoption wholly through males will be entitled to succeed, they being the agnates of the deceased. In the absence of agnates also, persons who are related to the deceased by blood or adoption but not wholly through males will be entitled to succeed, they being the cognates of the deceased. In the absence of any relative of class I or class II or any agnate or cognate, the property will go to Government by way of escheat.

Full rights for women

So far as properties held by Hindu females are concerned, the first significant change that this law has made is that, subject to certain exceptions, where a limited estate has been created by a written instrument, whatever property is in the possession of a woman, whether it has been acquired before or after the commencement of this new law, shall be regarded as her *absolute property*. The limited estate known as the Hindu Woman's Estate will no longer be law.

Having given the Hindu woman an absolute estate in property, the Act provides for a slightly modified list of heirs to property in respect of which she may have died intestate. The heirs of a Hindu female are as follows:—

1. Sons and daughters and the husband, who all share equally. If any son or daughter had pre-deceased his or her parent the share of the pre-deceased parent would be divided equally between the grand children;

2. the heirs of the husband;
3. mother and father;
4. heirs of the father; and
5. heirs of the mother.

As in the other case, heirs in one entry exclude those in the next succeeding entries, and heirs in the same entry share equally.

For the purpose of determining who the heirs of the husband, the father and the mother are, the same rules will have to be applied as would have applied if the property had been the husband's or the father's or the mother's, and he or she had died intestate in respect thereof immediately after the death of the Hindu female concerned.

Safeguards

In order that properties inherited by a Hindu female do not go to families who should not reasonably have any expectations in respect thereof, a very important exception to the above list of heirs is made in section 17 in the case of succession to the property of a Hindu female. For example, if a Hindu female had inherited property from her father or mother and she dies leaving behind neither children nor grand children, although she may have left behind her husband, the property does not go to the husband but it reverts to the heirs of the father. Similarly, any property inherited by a female Hindu from her husband or from her father-in-law devolves, in the absence of any children or grand children of the deceased, upon the heirs of the husband. Subject to these important exceptions the list of heirs would be as mentioned earlier.

There are certain general rules laid down with regard to the computation of degrees for determining the order of succession among agnates or cognates; for preferring full blood to half blood; for disqualifying certain widows who may have re-married at the time the succession opens, and to disqualify persons guilty of murder or the descendants of person who have left the

Hindu faith from inheriting the property of a deceased Hindu. It is unnecessary to make a detailed examination of these provisions.

Right for female heir

One of the very important changes made in this Bill, as has already been pointed out, is the right given to a female heir to succeed to the interest of a Mitakshara coparcener. While the coparcenary is allowed to continue so far as its undivided male members are concerned, this Act provides that on the death of a male member of the coparcenary, his interest will devolve on all the heirs, whether male or female, who would have entitled to succeed to his share in the property if it had been partitioned off immediately before his death.

At the same time certain special provisions are made whereby unnecessary division of the family property is avoided. For example, a female, although she may be entitled to live in a family dwelling house wholly occupied by members of the family, cannot ask for partition unless the male heirs themselves choose to take away their respective shares. Similarly, whenever an interest in any immovable property of an intestate or in any business carried on by him or her devolves upon two or more heirs mentioned in class I and any one of such heirs wants to transfer his or her interest in the property or business, the other heirs have a right to purchase that interest in preference to outsiders so that the property or business may be kept intact.

Provision is also made in the Act whereby a Hindu male has the same right to make a will in respect of his interest in a Mitakshara coparcenary property as he has in respect of his separate property so that wherever necessary the deceased person could so exercise his will making power that unnecessary disruptions are prevented.

Minor modifications

The Act also applies generally to persons governed by the *Marumakkattayam*, *Aliyasana* and *Nambudiri* laws of inheritance, but a few minor modifications to suit the circumstances obtaining in that part of India where these systems of law prevail have been made in section 19 of the Act. So far as these persons are concerned the distinction between agnates and cognates has no meaning and therefore with respect to the property of a Hindu male governed by any of these systems of law the property will devolve firstly

upon the heirs in class I and in the absence of heirs in class I, upon the heirs in class II, and in the absence of heirs in class II also, upon the relatives nearest to the deceased, whether agnates or cognates.

With respect to the property of a Hindu female governed by any of these systems of law, the heirs are:—

- (1) Firstly, sons, daughters and the mother and if a son or daughter had pre-deceased, his or her parent, then the grand children;
- (2) secondly, father and the husband;
- (3) thirdly, heirs of the mother;
- (4) fourthly, heirs of the father; and
- (5) lastly, heirs of the husband.

If any property had been inherited by any Hindu female governed by any of these rights of law from her husband or from her father-in-law, it would devolve, in the absence of sons or daughters including grand children, upon the heirs of the husband. And further, so far as these persons are concerned, the special provision restricting the right to claim partition in respect of a dwelling house does not apply.

The joint family properties which correspond to the Mitakshara coparcenary properties are known in these systems of law as *tarwads*, *tavazhis*, *kutumbas* and *kavarus*, and a member of such *tarwad*, *tavazhi*, *kutumba* or *kavaru* may be a male or a female. When a member of such a joint family dies, his or her property will devolve on the heirs by testamentary or intestate succession in the same way as the interest of a male Hindu in a Mitakshara co-parcenary devolves upon his heirs.

Sthanam property

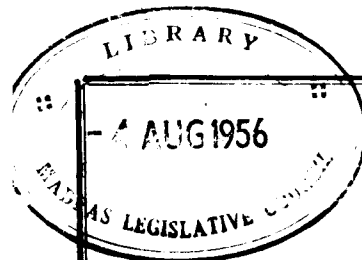
Incidentally, with respect to *sthanam* properties (an anachronism in the present day) provision is made for the breaking up of the *sthanam* the moment the *sthanamdar* dies. Some of the aristocratic Hindu families in the south-west coast of India have had attached to their families an office called the *sthanam*, which means literally station, rank or dignity. *Sthanams* had been granted in days of old to rulers or chieftains but there are other families also possessing *sthanams* without any particular dignity attached to them. Once any of the *sthanamdar* dies the property will be held by all the members of the family of the *sthanamdar* as tenants-in-common.



Chief Minister Sri K. Kamaraj, while inaugurating the Service Week of the Secretariat Association, added words of wisdom and wit that produced peals of laughter in the audience and provoked some thought too.

Sri C. Subramaniam, Minister for Finance, opened the Police Exhibition arranged in connection with the Moral and Social Hygiene Conference.





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he eats
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matters



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Educational Conference for the Southern Region was held at Coimbatore in the last week of August. Shri Sri Prakasa, Governor of Madras, inaugurated the Conference and many eminent educationists participated in it.

"Let us be worthy of him—Let us always be so"



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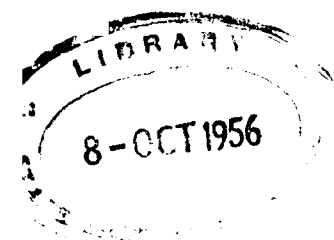
"WE SEEK TO SERVE AND NOT TO COMPETE"

October 1956

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Cover Picture : Monuments in many forms and of various types have been built for Mahatma, but the most befitting one seems to be the National Extension Scheme inaugurated on Gandhi Jayanti Day four years ago. This memorial has since grown and spread in volume and dimension and by the end of the Second Five-Year Plan it is proposed that the entire country be brought under the rural reconstruction scheme. On this Gandhi Jayanti Day, let us pay homage to the Great Soul by rededicating ourselves to the noble task that was dear to him—the establishment of Grama Swaraj.



3

MADRAS INFORMATION



State of Basic Education in 1956

This is the eleventh year of continuous work in the development of Basic Education in the Madras State. There was a large increase in the number of institutions over that of the previous year. The number of Basic Training schools increased by 92 per cent and Basic schools by 120 per cent. The number of Post-Basic schools has increased from 2 to 4. There was an extensive programme for retraining Elementary and Secondary Grade teachers.

One thousand and three hundred Elementary schools were converted into Basic schools during this year. The number of Basic schools in the last three years is given below :—

1953-54.	1954-55.	1955-56.
905	1,075	2,375

1A

Government sanctioned a sum of Rs. 13 lakhs for provision of craft equipment for these 1,300 Elementary schools converted into Basic schools. For the first time, the unutilized portion of this provision has been ordered to be carried over for the next financial year.

SRI N. D. SUNDARAVADIVELU.

A sum of Rs. 19,230 has been disbursed as grants to four aided Basic schools for construction of buildings. A sum of Rs. 2,500 was given as subsidy

to a Board Basic school for the same purpose.

The number of pre-Basic schools remained 32. No new pre-Basic schools attached to Basic schools were opened during the year, nor in the previous two years.

Two new post-Basic schools were opened under private management during this year, one at Gandhigram in Madurai district, and the other at Perur in the Malabar district. The number of post-Basic schools in relation to the previous years is shown below :—

1953-54.	1954-55.	1955-56.
1	2	4

MADRAS INFORMATION

4

The number of Basic Training schools rose to 81 during the year. The number of Basic Training schools in the last three years is given below :—

1953-54.	1954-55.	1955-56.
42	47	81

The increase in the number of Basic Training schools in 1955-56 was as detailed below :—

Basic Training schools newly opened.	18	(14 Government and 4 aided).
Training schools converted into Basic Training schools.	17	(11 Government and 6 aided).

One aided Basic Training school was closed from the beginning of the school year. Eight additional sections were opened in the existing Basic Training schools.

Government sanctioned during the year the purchase of a pair of bulls for each of twelve Government Basic Training schools at a cost ranging from Rs. 400 to Rs. 500 per pair.

Coir-making as Subsidiary Craft

Introduction of coir-making as a subsidiary craft in the year 1956-57 in four Government Basic Training schools in the Malabar district was sanctioned by Government.

Buildings for Basic Training Schools

Three new buildings of the type-design have been constructed for Government Basic Training schools at Orathanad, Musiri and Anakkara.

Two buildings for aided Basic Training schools are under construction with Government aid. One is for the Basic Training school at Keelamoongiladi and the other for the Mission Aided Basic Training school at Pudupalayam both in South Arcot district. Government have approved schemes for the construction of buildings for aided Basic Training schools at Porto Novo (South Arcot) and Kinnikambala (South Kanara) at estimated costs of Rs. 71,425 and Rs. 52,000, respectively.

Stipends for Trainees

Stipends at the rate of Rs. 18 per pupil per month continued to be given to those of the Junior Basic Grade as well as the Senior Basic Grade.

Inspection and Control

Inspection and control of the Basic Training schools continued to be vested in the two gazetted Basic Education Officers. Consequent on the large increase in the number of Basic Training schools and Basic schools, the volume of work increased considerably all on a sudden. The burden has been

shifted partly to the District Educational Officers by entrusting them, for the time being, with certain administrative routines such as sanction of stipends.

Retraining of District Educational Officers and Inspectresses of Girls' Schools in Basic Education.

Basic Education being the accepted pattern of National Education, it was felt that every officers in the Department should be retrained to fit in with the new development. As a first step, a scheme of retraining all District Educational Officers and Inspectresses had been undertaken with the approval of Government and the Hindustani Talimi Sangh. The salient features of the Scheme are—

(1) A preparatory study by these officers of *syllabi* and Basic Education literature according to a list provided.

(2) The preparatory study to be followed by a course of continuous regular training for two weeks in a suitable Basic Training centre.

(3) Visits to Basic schools and Basic Training schools for first-hand study and observation of the methods, organization and administration of Basic Education.

(4) A further training course for two or three weeks in a suitable centre.

(5) Visit to Sevagram for observation and study for a period of one week or ten days.

The first stage of two weeks' training was conducted at the Government Basic Training School, Tirur, Chingleput district, from 2nd April 1956 to 16th April 1956. Seventeen officers underwent the training. Sri K. Arunachalam, formerly Principal of the Teachers' Training College, Periyanaickenpalayam, conducted the training, assisted by three gazetted officers of the Department who are both basic trained and sufficiently experienced in the field. I am happy to place on record that these officers took to this retraining with zeal and earnestness and have given a good account of themselves. I am confident they will evince the same enthusiasm in furthering the growth of Basic Education.

Pre-Basic Training Schools

The Kasturbagram Pre-Basic Training School, Kasturbagram, Coimbatore district and the Pre-Basic Training Section attached to the Lady Willingdon Training College continued to

train candidates for the Pre-Basic T.S.L.C. Examination.

Retraining of Teachers.

Graduate teachers.—One hundred and fifteen teachers were retrained in the five months' course of re-training during the year, as against 72 in 1954-55. The Gandhi Basic Training School, Periyanaickenpalayam, and the C.D.S.M. Basic Training School, Batlagundu, conducted the retraining courses. In the Basic Training School, Periyanaickenpalayam, two batches were retrained; the first batch of 38 teachers from 23rd June to 22nd November 1955 and the second batch of 40 from 23rd November 1955 to 22nd April 1956. In the Basic Training School, Batlagundu, one batch of 37 teachers, was retrained from 18th July to 17th December 1955. The graduate teachers comprised Deputy Inspectors of Schools and School Assistants from Government institutions and graduate teachers from aided Training schools.

Elementary and Secondary Grade Teachers.

In order to convert, during the year, 1,300 Elementary schools into Basic schools, a large programme of retraining of teachers in a three months' course in Basic Training schools was launched. About 5,500 teachers were thus retrained. The rate of retraining during this year has broken all previous records, as nearly ten times the number retrained in the previous year have undergone retraining this year.

Craft Equipment Stores.

Three new Craft Equipment Stores were opened during the year, one attached to the Government Basic Training School, Malappuram (Malabar), the second attached to the office of the Deputy Inspector of Schools, Koilpatti (Tirunelveli), and the third to the Lady Willingdon Training College, Madras. A sum of Rs. 5,000 was sanctioned to each store for the provision of craft equipment, to be supplied to basic schools.

The number of Craft Equipment Stores in 1955-56 was 29.

Craft Production.

The main craft in Basic Training schools continued to be spinning and weaving, agriculture and gardening being a subsidiary craft. In Basic schools, spinning is the main craft, and gardening is the subsidiary craft.

5

MADRAS INFORMATION

Earnings in craft production for the year 1954-55 are given below :—

Basic Schools—		Net earnings.	
Number of basic schools.	Pupils.	RS.	A. P.
1,075	131,812	24,727	11 9
Basic Training Schools—		Earnings.	
Number of Basic Training schools.	Pupils.	RS.	A. P.
47	4,732	48,100	10 6
		9,329	8 8

Self-Sufficiency.

Thirty-two Basic Training schools attained more than 50 per cent self-sufficiency.

Disposal of Craft Produce.

The craft equipment and initial raw materials are supplied free by the Department to all Basic schools. The schools deposit either the entire finished produce or the value of such products as may be sold, together with the unsold craft produce, into the Government Craft Equipment Stores. The

required quantity of raw materials is issued from the same store in exchange for part of the craft produce delivered at the store. The value of the balance is credited to the funds of the Government which supplied the original equipment and raw material. The disposal of craft produce relating to cotton craft has been presenting a problem of disposal, unlike the agricultural produce.

The Rural Welfare Department of the Government has agreed to take over our products and dispose them of and credit the amount realised to the State funds.

Literature for Basic Schools.

Fifty reading books in Tamil for Grades II to V of Basic schools were prepared by the Special Officer appointed for the purpose. The production of these books was on the recommendation of the Ad Hoc Committee on Basic Education. The number of books prepared gradewise is shown below :—

Grade II	10
Grade III	10
Grade IV	14
Grade V	16

A DISCOVERY—EVERYTHING HAS A NAME !



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Arrangements for the publication are in progress. A separate booklet explaining the aim and scope of these reading materials will also be published.

Committees and Conferences.

Regional Basic Education Conferences.—The Annual Regional Basic Education Conferences were held in January and February 1956. In the Coimbatore Division, the Regional Conference was held at the Government Basic Training School, Avinashi, for three days in January 1956, and in the Madurai Division, it was held for three days in February 1956 at the Government Basic Training School (Women), Tanjore. They were organised by the Basic Education Officers. The Hon'ble Minister for Education was pleased to inspire and encourage all the workers in the field of Basic Education by his participation in one of them. The Director of Public Instruction attended and took an active part in the discussions of both these conferences. District Educational Officers, Inspectresses of Girls' Schools, Headmasters of Basic Training Schools, Basic Trained Deputy Inspectors of Schools and heads of Post-Basic schools and of select Basic schools attended the conferences. To the Conference held at Tanjore, lecturers in Basic Education from the Lady Willingdon Training College, Madras, the Meston Training College, Royapetta, and the St. Christopher's Training College, Vepery, were also deputed.

These conferences provided opportunities for members of the staff of Basic Training schools and the Inspecting and Administrative Officers of all grades including the Director of Public Instruction to come into contact with each other and understand their common problems and difficulties in the field, review the work done and discuss ways and means for further development.

Quarterly Conferences.

Quarterly conferences of one day's duration for Basic school teachers were also held at Basic Training schools with compact areas around them.

I am glad to state in conclusion that the year under report has been one of unprecedented expansion at all stages and aspects of Basic Education. Now that all the Administrative District Officers of the Education Department in this State are being retained in Basic Education, I hope and trust that the experiences, the intelligence and the wisdom of the many will be available for solving the day-to-day problems of Basic Education and that the spread of Basic Education will receive further impetus. The fact that the eleventh All-India Basic Education Conference is held in this State is not only a proud privilege but also another source of strength and inspiration for the work in the coming years.

ANNEXURE.

Enrolment.

	Junior Basic Schools.	Senior Basic Schools.	Basic Training Schools.
1949-50 ..	5,813	552	1,213
1950-51 ..	8,134	518	1,973
1951-52 ..	11,332	1,275	2,090
1952-53 ..	20,285	3,171	2,811
1953-54 ..	44,091	10,768	2,895
1954-55 ..	98,710	46,380	3,578
1955-56 ..	205,350	48,863	5,346

Yarn produced (Number of hanks).

1951-52 ..	399,971	(Composite State).
1952-53 ..	331,587	(Residuary State).
1953-54 ..	508,582	(do.)
1954-55 ..	560,784	(do.)

Square yards of cloth produced.

1951-52 ..	16,370	(Composite State).
1952-53 ..	13,692	(Residuary State).
1953-54 ..	28,274	(do.)
1954-55 ..	37,729	(do.)

Number of Elementary and Secondary Grade Teachers retrained in Basic Education.

1947 to 1949. ..	438	Composite State.
1950 summer ..	844	
1951 do. ..	655	
1952 do. ..	1,439	Residuary State.
1953 do. ..	720	
1954 summer ..	596	
1955-56 ..	5,500	



Mr. Justice Earl Warren, Chief Justice, Supreme Court, U.S.A., addressing the students of the Law College, Madras, during his recent visit to the City.



Sri A. B. Shetty, Minister for Co-operation, inaugurating the Second Conference of the Madras State Co-operative Housing Societies.

Community Development

Salient Features of a Silent National Revolution

It has already been decided that the entire country will be covered by the National Extension Service by the end of 1960-61, and Rs. 200 crores have been allocated for the purpose. An overall programme for the entire country was discussed at the Fifth Development Commissioners' Conference at Nainital, and approved by the Central Committee of the Planning Commission. The State Governments' programmes are being drawn up in the light of these decisions and recommendations.

One of the salient features of the overall programme is that not less than 40 per cent of the 3,800 new N.E.S. Blocks to be started during the Second Plan period would be converted into Community Development Blocks of the more intensive type.

So far 1,160 N.E.S. and Community Development Blocks have been allotted and work has started in all of them. They cover 157,347 villages and a population of 88.8 million. In another 266 Blocks which have also been allotted, work will start from October 2, 1956. In the meantime preliminary work, involving expenditure up to a ceiling of Rs. 10,000 per Block, is being undertaken therein.

The actual allotment of Blocks (both Community Development and National Extension Service) to the various States depends on the progress of work, people's response to the programme, the availability of fully trained personnel and other relevant factors. In regard to the conversion of National Extension Service Blocks into Community Development Blocks, the intention is that no such Block, which will have worked for a full period of three years, would remain unconverted, provided it has reached the level of performance considered suitable for the purpose. Actual allotment of

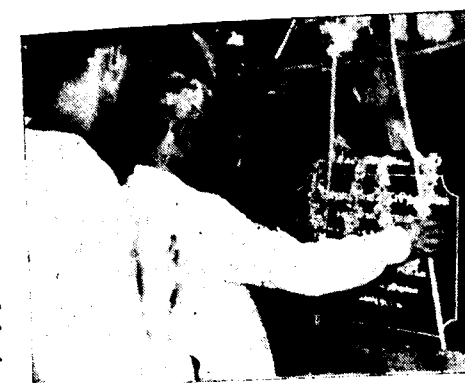
Blocks will continue to be made by the Central Committee.

Financial Allocations.

As the whole of the country is to be covered by the National Extension Service by the end of 1960-61 and the total allotment made for this programme during the Second Plan period is Rs. 200 crores, the amount to be spent in each of the Blocks has been slightly reduced. The revised estimated expenditure for a period of three years will be Rs. 12 lakhs for a Community Development Block instead of Rs. 15 lakhs and Rs. 4 lakhs for a National Extension Service Block instead of Rs. 4½ lakhs. All N.E.S. and Community Development Blocks started after April, 1956 will work on this revised budgetary pattern.

Provision has also been made for subsidy to private irrigation works. This subsidy will be shared between the Central and State Governments.

In order to keep up the tempo of work in the Community Development Blocks which will have completed their period of operation during the Second Five-Year Plan, a provision of Rs. 30,000 per annum per Block has been made for a period of three years. Of this amount Rs. 5,000 will be spent



Sri M. Bhaktavatsalam, Minister for Agriculture, laying the foundation-stone for the N.E.S. Community Hall at Tiruchitrambalam.

on Education and Rs. 25,000 on Local Works.

An 'Ad hoc' provision of Rs. 5 crores has been made for certain special items like model villages, sample surveys, pilot projects, research, publications, etc.

It has also been recommended that there should be a Block Level Extension Officer (Cottage Industries) for each National Extension Service Block. These officers will first be posted in the Community Development Blocks.

Industrial Pilot Projects.

Twelve Investigation Teams are being appointed by the Ministry of Industry and Commerce to carry out a survey of the industrial pilot projects. These teams will assist the States in drawing up long-range programmes for the development of village and small-scale industries in each pilot project. Twenty-five such projects are now functioning in the States.

The All-India Khadi and Village Industries Board has already recommended to the Ministry of Production the appropriation of an amount of Rs. 1 crore for the development of Khadi and village industries in the pilot projects. The specific schemes for starting such industries are now being finalised and will soon be sanctioned by the Board.

It has been generally agreed that a minimum of 40 per cent of the allocations for the various All-India Board for the development of cottage industries should be remarked for starting such industries in Community Development Blocks.

Action Committees have been constituted in 19 of the Pilot Projects and necessary powers have been delegated to Community Development Project Officers (Industries).

Role of Advisory Committees.

Following the Fifth Development Commissioners' Conference at Nainital, more and more attention is being paid to association of non-officials in development works. It is felt that the entire responsibility for planning and execution of the plans may be entrusted to non-officials in the post-intensive stage, and that the official machinery should develop and activate

popular institutions during the programme period, so that these institutions might take over the entire responsibility at that stage.

The Project and Block Advisory Committees have a specific role to play in the implementation of the Five-Year Plan. In the Community Development Programme during the post-intensive phase, one of their main functions will be to advice on the formulation and approval of schemes under local works and social education.

Efforts will be made to develop these committees into self-reliant and motivating institutions of the people in the Blocks, so that they can fit into local self-government pattern of the future.

Tribal Welfare

While allocation for development of tribes under the First Plan was Rs. 32 crores (Rs. 7 crores for ex-criminal tribes), under the Second Plan Rs. 51 crores would be spent on tribal welfare. This includes an allocation of Rs. 4 crores for ex-criminal tribes.

Welfare programmes are broadly educational, health and economic. The range extends from primary schools, dispensaries, scholarships for higher education to training in scientific agriculture, cattle breeding, poultry farming, organising of multi-purpose co-operative societies, relief to indebted persons reclamation of waste lands, etc.

Agriculture and Animal Husbandry.

Cultivators in the Community Development and National Extension Service Blocks appear to be taking to improved methods of agriculture and animal husbandry with enthusiasm. Up to the end of March, 1956, over 9-330 million maunds of fertilizers and 4-519 million maunds of improved seeds have been distributed. 1-224 million agricultural demonstrations have been held. The area which has been brought under food crops is 160,000 acres and under vegetables 376,000 acres.

2,548 key village centres have been started and 11,314 pedigree animals and 244,000 pedigree birds have also been supplied. The area reclaimed comes to about 1-092 million acres.



In their implementation, therefore, the confidence of the tribal people is of the highest importance and the programmes have to be based on respect and understanding of their culture and traditions and an appreciation of the special social, psychological and economic problems with which they are faced. Tribal people have to be assisted largely through their own institutions and for this the anthropologist, the administrator, the specialist and the social worker have to work together as a team. This has been the basic approach of the Government of India.

Poondi Irrigation Research Station

Till early twenties engineering in general and hydraulic engineering in particular had not attained sufficient growth or development on the research side as to be used extensively on designs of hydraulic structures. Orthodox and uneconomical type of designs based on empirical formulae were being followed. The subsequent general awakening and economic conditions with special reference to the acute food scarcity consequent upon Second World War gave a fillip and incentive to extensive research work for effecting overall efficiency and economy in the construction of river valley projects. These conditions created an urge for the opening of more research centres to deal with specific problems.

The Irrigation Research Station at Poondi, started in 1944, is 37 miles from Madras City and seven miles from the Tiruvallur town. A reservoir exists here for augmenting water-supply to Madras City. This reservoir, the Satya-murthi Sagar, is formed across the Kudathalaiyaru river by the construction of a regulator flanked by earthen bunds. Model experiments were originally conducted at the site for finalizing the designs for the regulator and the down-stream protection. This study has now grown into a full-fledged research institution serving the needs of not merely the State of Madras but of adjoining sister States and the Centre also. The location of the station at Poondi was not but functional with its abundant water-supply from the reservoir for running the models.

Set-up and Control.

The present organisational set-up of the station consists of an Executive Engineer (Research Officer) with two Assistant Engineers (Assistant Research Officers) with the requisite number of junior engineers, office staff and work-charged establishment.

The research station is under the ultimate administrative control of the Chief Engineer (Irrigation), Public Works Department, Madras State, the immediate control being vested in the hands of the Superintending Engineer (Designs). The study of the problem is usually directed by the Superintending Engineer. But in special cases, problems are referred to the station, direct, by the Chief Engineer, other State Public Works Department officers, inter-State agencies and the Centre.

The residential and other appurtenant buildings, workshop, offices, etc.,

are all situated on the right flank of the Poondi regulator. Till very recently, the model experiments were being conducted here. But with the expansion of the activities of the station, the experiments were spread on to the left flank also. Model experiments are now being carried out on both the flanks, each flank being looked after by an Assistant Research Officer.

SRI D. P. JOG.

Scope of the Research Station.

The scope of this research station is primarily to conduct model studies on irrigation and hydraulic structures, river training works, and other allied irrigation structures. The results of model studies are incorporated in the final designs of new works. Such studies are also being applied in day-to-day problems in suggesting additions and alterations to the existing hydraulic structures.

Studies on the proto-types, constructed on the recommendations of the Research Stations are also being conducted to see how far the results of model studies are realised in the proto-types and suggest ways and means of improving the technique and scientific knowledge of such studies.

Other problems of academical interest and educative value in research and papers for symposia held under the auspices of the Central Water and Power Commission, and scientific and industrial research organisations from abroad, are also being referred to this station for study, comments or amplifications. Grants for such studies are also provided by the Union Government. Recently, the station has been

authorised to conduct research studies on "High Pressure Gates", with the aid of a Central grant.

The research conducted at the station has greatly aided in the efficient and economical execution of the river valley projects, and other schemes taken up under the Grow More Food Campaign. With the completion of the schemes contemplated in the Second and Third Five-Year Plans, to keep abreast with the modern advanced scientific world, greater attention may have to be bestowed on the research side in adopting theories and fundamentals of pure sciences like mathematics and physics. It is hoped that with the advanced basic researches to be done in future, the research centre would serve as a pioneer institution guiding the scientific and industrial knowledge in the field of engineering researches.

Important Problems.

During such a relatively short period of its existence the Poondi station has solved many an important and intricate problem in hydraulic engineering and has all along been associated with the major river valley projects in the south, such as the Tungabhadra, the Lower Bhavani, the Malampuzha, the Manimuthar, etc., and a number of other projects, big and small. The station also undertook extensive studies for the gigantic multi-purpose projects like the Ramapadasagar and the Krishna-Pennar, when they were being actively considered.

Spillway Studies.

Pressure studies are being conducted to test the presence of negative pressure, or sub-atmospheric pressure, if any, on spillways of dams. These pressures are generally caused because of non-conformity structure and sheet of falling

water. Tables of co-efficients of discharges for several stages of flow over the spillways are also being deduced for adoption in similar designs. Spillway studies are also done for dissipating the energy created at the toe of the spillways due to impact of flow, and devising the best means of protection.

Canal Structures.

Basic studies are also being conducted on canals and canal drops to determine the glaciis and the best type of protection required in the rear of such structures. As an alternative to construction of a series of drops in a rapidly falling country at an enormous cost, studies on the possibilities of chute construction at a comparatively less cost are undertaken with a great measure of success. A chute is a lined canal with a relatively steeper slope obviating intermittent fall structures. Such chutes have been advantageously adopted in some of the canal systems with resultant marked economy.

Designs of regulators are finalised after extensive model studies. Basic research is also undertaken in the station.

Bank Erosion.

As is natural, most of the water courses in this country are meandering and deep scours and gullies are formed at the banks and especially so at the sharp bends of rivers. These erosions endanger the safety of the neighbouring villages and at times inundate standing crops, causing considerable hardship to the agricultural population of the locality. Model studies are being undertaken to suggest remedial measures to obviate or at least mitigate these defects.

Silting of Water Courses.

It is a natural phenomenon for the water courses to get silted up, thereby diminishing the carrying capacity of such waterways. Due to defective location of off-takes from canals and rivers, the ventways in these off-takes often get silted up requiring costly measures for restoration. Studies are also made for determining the best possible location of such sluice sites for new works or improving and remodelling the existing ones.

Irrigation problems from other neighbouring States are also being referred

to the station. These studies are being undertaken on behalf of other States at the usual centage charges. Problems dealt with on behalf of the Central Government (Central Water and Power Commission) are undertaken as grant-in-aid works or free of cost.

Savings from Studies.

It is difficult to assess the value of research in terms of money. An idea of the economies effected as a result of research studies undertaken at the Irrigation Research Station, Poondi, is however given below.

As a result of the studies conducted on the energy dissipating arrangements for the Lower Bhavani Dam, the length of the apron as originally proposed was reduced considerably, effecting a sizeable economy in its construction cost.

The comparative studies conducted on canal drops *versus* chutes resulted in as high a saving as about 40 per cent in the Lower Bhavani Project canal distribution system. In a single item of the Lower Bhavani Dam (spillway—left training wall), a saving to the tune of Rs. 1,75,000 was effected by adopting designs based on model studies conducted at the station.

Model studies not only ensure efficient hydraulic structures, but marked economy also. Considerable economies are effected in the design and construction of gigantic hydraulic structures without impairing, even in the least, their structural efficiency. The studies, in short, have greatly aided in the accomplishment of the several outstanding engineering structures, of which the country may well be proud.

—Bhagirath.

Educational Broadcasts for Schools

Educational broadcasts for schools from Madras entered the eighteenth year of service with the programmes for the first term of the school year 1956-57, which began on Monday, July 9, 1956. Although Madras began a service for schools as early as 1938, a well-organised, closely integrated service covering all schools with radio sets in what was then the undivided State of Madras and now the States of Andhra and Madras, was made possible only in 1949. Two factors which made possible such integration and wider dissemination were the opening of a new station at Vijayavada with its primary service area in the Telugu districts and the availability of an additional combined medium-cum-short-wave service at Madras.

The educational broadcasts began therefore to be planned among the three stations, namely, Madras, Tiruchirappalli and Vijayavada, in Tamil, Telugu and English. Tamil programmes were made available to schools on Madras and Tiruchirappalli transmitters and Telugu programmes in Madras-B and Vijayavada transmitters. English broadcasts were common to all the services. Now the co-ordination and integration started then have come to be the most significant feature of school broadcasts from South India; and nearly 1,200 schools in Madras and Andhra to-day

provide listening facilities for their students and give time regularly for these broadcasts.

Current Year's Programmes.

The programmes which commenced on Monday, July 9, 1956, retain in broad outline the main features of the preceding years and have been planned with a view to supplement, as before, the instruction given by teachers in the class room, and to add to the general knowledge of the students. The topics selected and the wide range of subjects covered have, however, a close bearing on the prescribed syllabuses and courses.

As before, programmes will be broad, cast daily from Monday to Friday, except on school holidays, for the elementary schools, middle schools and high schools. There is however a slight modification of timings. The elementary school programmes will be from 2.50 to 3.20 p.m. (instead of from 4.00 to 4.30 p.m.). Middle Schools from 12.30 to 1.00 p.m. (as before) and high schools from 2.10 to 2.40 p.m. (instead of from 2.15 to 2.45 p.m.).

The programmes include broadcasts in Literature, Arts and Science, Geography, History, Social Studies, Music lessons, Hindi lessons, English lessons, etc.

(Continued on page 30)

The Ketty Valley Transformation

Successful Soil Conservation Project on the Nilgiris

The plateau of the Nilgiris is dotted with innumerable hills which render the country very undulating. Between every two hills there is invariably a natural stream running along the valley bottom. The Moyar, the Pykara, the Kundah, the Katteri, the Bhavani and the Chaliar all take their source in the wooded hills of the Nilgiris. These rivers are put to great use lower down by damming for irrigation and hydro-electric power. The distribution of rainfall on the Nilgiris is divergent due to varying orographic features. The average annual rainfall ranges from 50 to 160 inches. The main problem confronting the region is to dispose of the excess water besides conserving the soil and the optimum moisture required for plant growth.

Decades ago, the slopes of the hills were well protected by thick growth of forests and vegetation, and cultivation of food crops and potatoes was restricted to patches of fertile lands near the proximity of villages. These patches of Badaga cultivation were in some cases protected by crude terracing and construction of rough stone walls but these were along the slopes and not along contours and were therefore unscientific and useless. As decades passed, more and more virgin lands were afforested and brought under the plough until at last during the War years and after under the guise of 'Grow More Food' large areas were indiscriminately afforested mainly for potato cultivation which offered tempting money returns. With what result? The direct impact of every fall of rain on the unprotected and loosened soil stripped it of the fertile and humus-laden top layer and carried it off to the numerous streams in the valleys and ultimately to the river dams. The loss of productive soil and the slow silting up of reservoir became a continuing calamity. Something had to be done to stop the disaster.

Serious attempts to combat the evil were first taken by Government in 1950, and public opinion was also focussed by men of public spirit who used to visit the hills during the hot weather. Government extended the Madras Land Improvement Scheme (Contour Bunding and Contour Trenching) Act, 1949, to the whole of the Nilgiris and the adjoining hill slopes of the Coimbatore and Malabar districts. The Act was however defective as, although it gave powers to

Government to enforce soil conservation measures, it did not empower the prevention of the cutting of trees which was the starting point for the whole trouble. Government therefore subsequently passed an Act called the Madras Hill Stations (Preservation of Trees) Act to regulate the cutting of trees and the cultivation of land on hill slopes. A reconnoitering survey of the Nilgiris revealed that the Ketty Valley in Coonoor taluk has the worst eroded area

SRI N. MURUGESA MUDALIAR.

requiring immediate attention, and a pilot scheme of soil conservation was put into operation three years ago. Today the benefits of this scheme are apparent to anyone who visits the valley.

Ketty Valley is the most fertile valley of the hills. It is about three miles north-east of Ootacamund and extends over ten square miles. Even in 1830 it was marked out for agricultural and horticultural development. The then Governor Mr. Stephen Lushington ordered the starting of an agricultural farm at Ketty village as the soil was good red lateritic loam. The farm was unfortunately closed down in 1836 by the order of the Directors of the East India Company. The farm lands were returned to the Badaga cultivators and the buildings were later on acquired by Mr. Casamajor, a Judge of the High Court who lived his later years at Ketty. Even today Ketty is a lovely bowl of rich soil but

it is practically treeless and unadorned. It composes of several small catchments and the streams which flow at the bottom, join and run as Katteri river lower down. The river has been harnessed by the construction of a reservoir for hydro-electric power which gives power supply to the Cordite factory. This is probably the oldest hydro-electric power station constructed roundabout the year 1902. Enquiries show that as against the original capacity of 7 million cubic feet of the Katteri lower lake, the capacity as recently observed is only about 5½ millions cubic feet, the difference being accounted by the silt accretion in the reservoir. Most of this silting is due to the continuous soil erosion in the valley during the past two decades. Any further unscientific cultivation which now mars the upstream areas of the Katteri will bring about a double disaster, namely, the valley will be rendered by continuous soil wash and the reservoir will be choked with infertile tons of silt.

The average elevation of the valley is about 6,500 feet above M.S.L. and the slopes of the cultivated lands range from 10 per cent at the bottom of the valley to cent per cent on the steep lateral slopes. At times of heavy and erratic rains, the run-off causes heavy erosion resulting in loss of soil and crops. Enquires indicated that about fifty years ago the ryots were in the habit of applying for their potato crop only cattle manure of 4 to 6 tons per acre. With the introduction of chemical manures in the twenties the ryots used about 300 lb. chemical manures per acre. During 1935-40, the dosage went up to 1,600 lb. per acre, and today it is about

2,400 lb. to maintain the yield at 6,000 lb. to 7,000 lb. This tells the story of the loss and expense to ryots by bad land management which paid no regard to soil conservation.

A pilot scheme for soil conservation was started in the valley by Government in 1952 over an area of about 90 acres forming a small sub-catchment to illustrate to the local cultivators the benefits of the application of soil conservation measures which were tested and found effective at the Research Station at Nanjanad. Encouraged by the results, the scheme was extended to a further area of about 200 acres. Subsequently, the ryots of Kammandu came forward voluntarily to take up the soil conservation works in that village. The original pilot scheme and the subsequent extension have all been completed and this success in the Ketty Valley has paved the way for a comprehensive scheme for all the other catchment areas in the Nilgiris covering an area of about 60,000 acres. In the first stage a scheme covering 25,000 acres will be taken up in the Second Five-Year Plan period.

The land use classification and the bunding and terracing techniques adopted in the Ketty Valley will be found interesting. For slopes up to 10 per cent, graded bunds at 3 feet vertical intervals with waste weirs are adopted. For slopes between 16 per cent and 33 per cent, bund terraces with disposal drains along the inner edge of the terrace and drop pits at the end are found the best. For slopes over 33 per cent, contour trenches and afforestation or grass planting are recommended.

Besides the bund terracing and graded trenching and the techniques of channelling and gully plugging which are purely engineering devices, agronomic improvements are also simultaneously carried out. They are contour cultivation, rotational cropping and manuring, grass patching and tree planting. The grasses used for stabilising the front faces of the bund terraces are Kikyu, Dallis, Cocks foot, Perennial rye, etc., which are exotics, besides the native grasses like Tripogu bromides, Chrysopogon Zeylanicus, etc. Since the ryots prefer to plant economic vegetation which will give them money returns, lemon grass which is in commercial demand is recommended to be planted to a

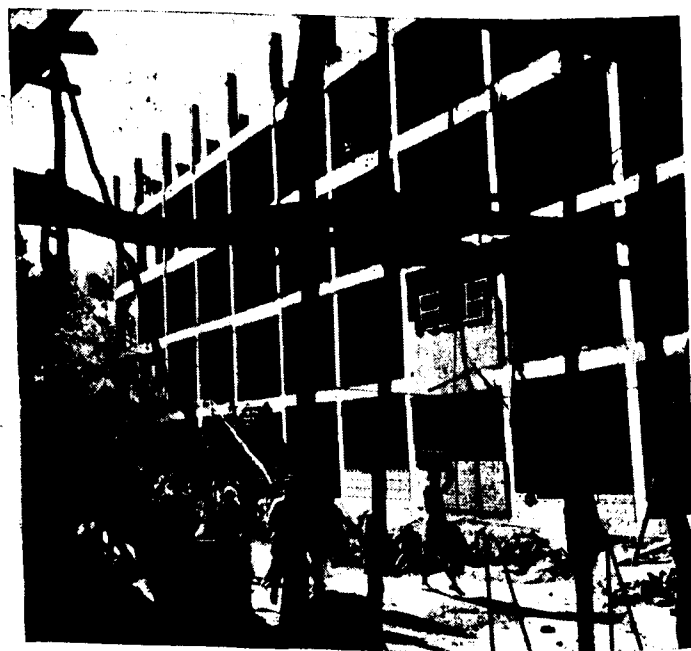
width of about six inches on the batter on the front edge of the terraces. Ryots are averse to planting blue gum and wattle on the terraces, which range from 8 feet to 10 feet, as the trees naturally depress the yield of potato to some slight extent. But commonsense should indicate that there is no harm in a decrease of about 5 per cent yield when the increase in yield by the soil conservation measures is up to 40 per cent.

At present proper attention is not given to rotational cropping. The only crops rotated, if ever, with potato are wheat, samai, ragi, and rye with the green manure crop of lupin for ploughing in. Often fallowing is resorted to between two crops but this is generally done only in steep unterraced lands. Fallowing would be quite unnecessary if all the lands are terraced. This is another advantage flowing from the soil conservation measures now adopted.

The terracing on the slopes is done by Government tractors at the cost of the ryots. Local manual labour is scarce and costly and is used only to a limited extent. Many hundreds of labourers will have to be employed if tractors are not used and the time taken would be unduly prolonged.

The terraces made by the tractors are neat and present a pleasing appearance. The cost of terracing is only about Rs. 420 per acre. The increased annual yield on terraced lands which is got from the second season onwards is about equal to this cost. The economic value of terracing is therefore obvious. Ryots who at the inception thought that their own unscientific terracing and bunding (if at all adopted) were good enough, are now convinced about the value of scientific soil conservation measures. Yield data obtained during the past two years and verified by the Statistical Department confirms that the average increase is about 40 per cent. The inestimable benefit is the arresting of erosion of soil which otherwise would render this fertile valley derelict and useless.

With luxuriant crop cover on the terraced valley dotted with clumps of blue gum, wattle and cyprus and patches of orderly tea cultivation thrown between, the landscape now presents a different picture from what it did five years ago. The Ketty Valley transformation is a visible demonstration of how man can rectify his mistakes and restore Nature to its beauty.



Urban Housing

During the First Plan period, the number of new houses, built both by public and private agencies, was roughly placed at 1.3 million, leaving a wide gap to be filled.

During the Second Plan, 1.9 million new houses are expected to go up.

Power Projects in Madras State

Six Lakhs K.W. by the end of the Second Plan

The First Five-Year Plan for the Madras State envisaged the construction of a new power-house at Moyar and extensions to the existing stations at Pykara, Papanasam, Madurai and Madras. The installed generating capacity increased by nearly 65 per cent from 156,000 K.W. to 256,700 K.W. The full Five-Year Plan target of 110,200 K.W. has been realised even during the fourth year of the Plan. Out of the estimated cost of Rs. 30.86 crores, it is expected that Rs. 30.68 crores would have been spent during the Plan period. The aggregate power demand increased from 130,000 K.W. to 208,000 K.W. and the units generated from 630 millions to 1,055 millions. A total amount of about 3,000 miles of H.T. lines and 4,500 miles of L.T. lines have been added to the grid during the five years. Over 1,500 villages were electrified as compared to a target of 250 villages per annum for the composite State. More than 15,700 pump sets were connected up by the State Electricity Department.

The draft outline of the Second Five-Year Plan which has recently been approved by the National Development Council has been formulated with the principal objectives of a sizeable increase in national income so as to raise the level of living in the country, rapid industrialisation with particular emphasis on the development of basic and heavy industries and a large expansion of employment opportunities. To achieve this end, the draft outline provides for an investment of 4,800 crores of rupees in the public sector and 2,400 crores of rupees in the private sector. In the above structure of the plan frame, a sum of Rs. 440 crores in the public sector and Rs. 50 crores in the private sector have been provided for the development of power in the country.

As far as Madras is concerned, the development of electricity even from the early nineteen thirties was planned on the basis of an extra high tension on the grid covering all the districts of the State. We have within the past two decades, built up a compact grid comprising a total of about 15,000 miles of E.H.T., H.T. and L.T. lines, serving all the districts of the State except South Kanara for which Jog Power from Mysore State will be shortly made available. The installed generating capacity of Madras State at the end of 1955-56 is about 256,500 K.W. while for all-India, this figure is expected to be 3.5 million K.W. The Madras power scheme for the Second Plan contemplates raising the installed capacity to 560,000 K.W. against 6 million K.W. for the whole of India, that is, the present installed capacity in Madras will be more than doubled by the end of the Second Plan period. With this installed capacity, it is hoped to meet the power needs of all the heavy, medium and small scale industries that are contemplated in the State, besides the growing needs of agricultural, domestic, and other uses.

The draft Plan for the power schemes of the Madras State was prepared bearing in mind the anticipated demand and the resources.

Sixty-one Crore—Scheme.

The schemes as originally approved by the Planning Commission were estimated to cost Rs. 61.10 crores. Subsequently the provision of Rs. 209 lakhs under acquisition of electrical undertakings was excluded by the Planning Commission and an increased provision of Rs. 162 lakhs under transmission and distribution was allowed. The total provision was thus reduced to Rs. 6,063 lakhs and after

effecting a 5 per cent economy cut recently suggested by the Planning Commission, the provision for power projects under Second Plan is Rs. 5,759.8 lakhs out of the total provision of Rs. 17,506 lakhs fixed for our State Plan. The provision for development plans under Electricity thus forms about 30 per cent of the total amount allocated for the State.

It will be seen that the development expenditure envisaged in the Second Plan for Madras power schemes is nearly double that in the First Plan period. These schemes will provide employment to about 30,000 persons. Also about 2,500 additional villages will get supply from the grid by the end of the Second Plan period.

The power projects included in the Second Plan for the Madras State comprise the balance of works on schemes of the First Five-Year Plan which are under execution and new schemes to be taken up in the Second Plan. The schemes of the First Plan which are to be continued in the Second Plan are—

- (1) The Madras Plant Extensions giving an additional installed capacity of 30,000 K.W.;
- (2) The Periyar H.E. Scheme with an installed capacity of 105,000 K.W.;
- (3) the transmission and distribution scheme; and
- (4) acquisition of electrical undertakings all estimated to cost Rs. 13.65 crores.

The new schemes which are to be taken up in the Second Plan are—

- (1) the Kundah H.E. Scheme with an installed capacity of 145,000 K.W.

(2) transmission and distribution project including the Travancore border to Udamalpet line to avail 26 M.W. from Travancore-Cochin Government ;

(3) Sandynallah Reservoir Scheme ;

(4) Pykara Dam Power-House Scheme with an installed capacity of 3,000 K.W. ;

(5) Papanasam Dam Power-House Scheme with an installed capacity of 4,000 K.W. ;

(6) improvement to existing power-houses, transmission lines and sub-stations ; and

(7) investigation of new schemes.

The estimated expenditure in the Five-Year period on the new schemes is about Rs. 4,395 lakhs.

Periyar Scheme.

Of the four schemes of the First Plan extending into the Second Plan period, the Periyar Hydro-Electric Scheme is the biggest. This scheme was sanctioned by the Planning Commission only in 1954 after the conclusion of protracted negotiations of the Government with the Travancore-Cochin State regarding the royalty to be paid for the use of the Periyar waters for power generation. The scheme involves the construction of a power station in Madurai district for utilising the irrigation discharge from the Periyar Irrigation Reservoir below the existing irrigation tunnel where a head of about 1,260 feet is available for power production. The Periyar lake which is on Travancore side of the border of the Madras and Travancore-Cochin States has a catchment area of 240 square miles and an average annual rainfall of 100 inches. With the proper regulation of the Periyar waters, it will be rendered possible to develop power during the non-irrigation period also, the water after generating power being stored in a new reservoir that has been proposed to be built at the lower reaches across the Vaigai for irrigation purposes. A certain quantity of water could therefore be discharged even during non-irrigation period also and stored in the Vaigai reservoir to be used eventually for irrigation purposes. The capacity of the existing irrigation tunnel is only 1,300 cusecs and this will be increased to 1,600 cusecs.

The power-house will be located in the ghat section of the main road from Cumbum to Thekkadi and will be about 35 miles from Theni in Madurai district. There will be initially 3 numbers 50,000 H.P. turbines each directly coupled to 35,000 K.W. generators, with associated step-up transformers and switch gear. A fourth set will be installed at a later date.

A system of 110,000, 66,000 and 33,000 voltage transmission lines and sub-stations connecting the power-house to the Madras grid will convey the power to the various load centres.

The scheme which is estimated to cost Rs. 10.47 crores will add 105,000 K.W. of installed generating capacity to the grid.

The scheme was inaugurated on 11th February 1955 by the Chief Minister and the works are in good progress. Contracts have been awarded for the supply of penstocks, valves, generating plant, sub-stations and transmission line materials and the first unit is expected to go into service by the end of 1957.

Madras Plant Extensions.

This is the second biggest scheme of the First Plan continuing in the Second Plan period. The scheme contemplates an additional generating capacity of 60 M.W. in three stages to augment power supply in the Madras City. One 15,000 K.W. set under first stage and another 15,000 K.W. set under the second stage have been



Irrigation and Power

The cost of irrigation and power projects included in the First Plan was Rs. 970 crores, of which irrigation accounted for Rs. 720 crores. The Second Plan proposals for irrigation include taking up of 195 projects in addition to those which have continued from the First Plan. With the completion of these projects an estimated additional area of 12 million acres would be brought under irrigation, apart from 9 million acres through minor works ; thus bringing the total irrigated area in 1961 to 88 million acres.

In the field of power generation has gone up from 6,575 million kilowatt hours in 1950-51 to 11,000 million kilowatt hours in 1955-56, and the installed capacity has gone up from 2.3 million kilowatt to 3.4 million kilowatt. The target for additional power capacity has been fixed at 15 million kilowatt.

The Second Plan aims at extending power facilities to all villages and small towns with a population of over ten thousand. This marks really a big advancement in what is truly one of the most vital aspects of our planning for prosperity.

already commissioned. Preliminary works on the third stage involving the erection of a 30 M.W. set with two boilers have been commenced and orders have been placed for the boilers, turbo alternator, switch gear and the circulating water system. The third stage is expected to be completed by the end of 1957-58 and will involve an expenditure of Rs. 2.71 crores during the Second Plan period.

Acquisition of Electrical Undertakings.

The First Plan envisaged the acquisition of 27 private and 27 local authorities undertakings in the present Madras State. By the end of 1951-52, three private undertakings and 20 local authorities undertakings had been acquired. No progress could be made in the ensuing years as the Madras Electrical Undertakings Act of 1949 was invalidated by the Supreme Court. The legal defects have since been rectified in 1954 and during 1955-56, four private undertakings and two local authorities undertakings were taken over. The balance of 20 private undertakings and five local authorities undertakings are to be acquired during the Plan period and the State Plan provided for an expenditure of Rs. 309 lakhs. Recently the Planning Commission excluded a provision of Rs. 209 lakhs and allowed only Rs. 100 lakhs. As the acquisition of electrical undertakings has been decided by the Government as a matter of policy to enable direct distribution of power to the ultimate consumer, the matter is being taken up further with the Planning Commission.

New Schemes under the Second Five-Year Plan.

Kundah Hydro-Electric Scheme.—This is the biggest of the new schemes of the Second Plan and will be the biggest of all the hydro-electric schemes of the State.

The development of the Kundah basin in the Nilgiris hills is proposed to be taken up in four stages. The first two stages only have been investigated and will be taken up during the Second Plan period. The first stage involves the construction of a storage reservoir of the capacity of 5,500 million c.ft. on the Avalanche and Emerald streams with low pressure

tunnels and penstocks leading to the power-house No. 1 on the right flank of the Kundah river.

In the second stage, the storage will be improved by an additional reservoir on the Upper Bhavani of capacity 3,500 m.c.ft.

The gross head available for power-house No. 1 will be 1,180 feet and the power-house will have an installed capacity of 40,000 K.W. comprising 2 units each of 20,000 K.W.

A diversion dam on the Kundah river will be built below the power-house No. 1 to collect the tail waters from power-house No. 1 as also the free flow from 44 square miles of free catchment. This will form the forebay for power-house No. 2 located on the left bank of the Pegumbahalla stream, a tributary of the Kundah. This station will have a gross head of 2,470 feet and an installed capacity of 140,000 K.W. comprising 4 units of 35,000 K.W. each.

The works are expected to be completed by the end of 1960-61, viz., the last year of the Second Plan period.

The power generated at Kundah will be fed into the grid by a system of 110 K.V., 66 K.V. and 33 K.V. lines.

The scheme is estimated to cost Rs. 35.44 crores out of which it is proposed to spend Rs. 22 crores during the Plan period.

The Canadian Government have approved to give aid to the scheme under Colombo Plan to the extent of 20 million by way of machinery and materials.

The Transmission and Distribution Project envisages the construction of a number of secondary transmission lines required for taking the additional power to the remotest corners of the State.

Including the transmission lines proposed under the Kundah and Periyar Hydro-Electric Scheme, an additional 8,200 miles of E.H.T. and H.T. lines and 6,500 miles of L.T. lines will be erected in the Second Plan period.

In addition, a provision of Rs. 12 crores was made for rural electrification in the State. The Planning Commission has now increased this by an

additional provision of Rs. 162 lakhs. The scheme is intended for building up distribution lines to expand rural electrification programme and bring electricity to the nooks and corners of the various districts of the State.

Madras State already ranks first in the matter of rural electrification with over 3,500 villages electrified up to the end of 1955-56.

There are now about 33,000 pump-sets working on electricity and this number will be increased to 57,000 by end of Second Plan period.

Sandynallah Reservoir Scheme.—The Sandynallah Reservoir Scheme envisages construction of a storage across the Sandynallah river about 6 miles from Ootacamund. The water thus stored will be diverted to Pykara Reservoir through a tunnel and this will result in an additional total annual generation of 54 million units at the Pykara and Moyar power-houses. The scheme is programmed to be completed by 1959-60 and would involve an expenditure of Rs. 96.8 lakhs.

Pykara Dam and Papanasam Dam power-houses.—These schemes envisage the installation of generating stations, one at the foot of the Pykara Dam and the other at the Tambraparni Dam to utilise the head available at the dam for power generation. A single generating unit of 3,000 K.W. capacity will be installed at the Pykara Dam station and a single 4,000 K.W. set in the Papanasam Dam power-house. The estimated costs of the schemes are Rs. 30 lakhs for Pykara Dam power-house and Rs. 41 lakhs for the Papanasam Dam power-house. Work on these will be taken up by 1957-58 and power-houses commissioned by 1959-60.

The per capita consumption of electricity which is a recognised index of the economic advance of any State was 10 units for Madras at the commencement of the First Plan and is now 21 units for Madras. It is hoped to raise this figure to 50 units by the end of the Second Plan period. We will be still far behind the Western countries, where the per capita consumption is of the order of 2,000 to 4,000 units. We have therefore to go a long way ahead if we are to attain a standard anywhere near that of the Western countries.



These dolls, leather goods, baskets, etc., are some of the beautiful products of our villages

Dolls for the Dear Ones Toy Industry in Madras State

Dolls and other toys are made in clay, wood, paper and cloth in many places in the State. The artistic and superior varieties are made in the districts of South Kanara, Madras, Salem, Coimbatore, Tiruchirappalli, Tanjore and Madurai. The articles produced include variety of things such as imitation fruits and vegetables, animals, birds, insects, models of household utensils, Hindu deities and the like. The toys produced in some of the places such as Guindy, Kumbakonam and Ambasamudram have won more than a local name.

How they are made.

The wooden dolls and toys are made usually out of local light wood. They are first turned on country lathes and then lacquered in various colours. Chisels of fine quality, files, saws, screws and country lathes are the tools commonly used. The making of articles of superior quality requires dexterity and skill. Government propose to start shortly two training centres at

Erode and Ambasamudram with a view to train local workers in the production of better and modern types of wooden dolls and toys.

Clay models

Small models of insects, reptiles, birds, etc., are made in brass by some brass-smiths in Madurai.

Clay dolls of superior quality are made in Panruti, and Bandipalayam in South Arcot district and in Srirangam in Tiruchirappalli district. The chief raw material required is clay which is easily available at the centres where the industry is carried on. Paints and varnish are purchased locally. Clay models are baked before they are painted and varnished and are modelled by hand or moulded. Usually clay models are made in moulds made of plaster of paris, cement or asbestos. For models of certain Hindu deities, copper plate moulds are used. The workers carry on the industry with

their own funds. A co-operative society has also been formed at Cuddalore for this industry. In recent years some of the clay toy workers have switched over to papier machie industry. Toys and dolls of fairly high quality are made at Guindy and Tanjore. The Government are also running a training-cum-production centre at Pulivalam in Tiruchirappalli district. A co-operative society has also been recently formed at Bhuvanagiri for this industry.

Soft toys for children have not developed to any appreciable extent in the State. A few good quality soft toys are made at Kumbakonam and other places by Christian Mission Convents.

Can be exploited for publicity

As pointed out by the Government of Andhra, the toys making industry can be successfully exploited for publicity purposes, models of projects, factories, etc. set up under the Five-Year Plan and also themes portraying the awakening and the new life generated amongst the people as a result of the working of the welfare state could certainly be made at these centres. It may be mentioned in this connection that not only the toy industry but other handicrafts such as pith work could also be utilised for making such models.

Do You Know ?

In 1955-56, tourist traffic earned for India foreign exchange to the tune of about Rs. 10 crores.

The Indian Railways purchased Rs. 76.86 lakhs worth of khadi during 1955-56, compared with Rs. 10.13 lakhs in the previous year.

The Government of India have so far sanctioned Rs. 24.57 lakhs as grants in the shape of equipment, etc., to 13 States for filaria control.

Production of bicycle tyres in India rose from 5,226,005 in 1954 to 5,748,100 in 1955.

The All-India Handicrafts Board has set up a pilot centre at Surat for the revival of the brocade industry. Expenditure incurred on the scheme up to the end of July 1956, was over Rs. 40,000.



The Silver Jubilee Celebrations of the Government School for the Blind, Poonamallee, on the 8 September 1956 at Raj Hall—Mr. R. E. Casteau, Sheriff of Madras, opened an Exhibition of articles produced by the pupils of the School for the Blind.



COTTAGE

INDUSTRIES

PILOT SCHEME for the development of Small-Scale Industries in Coimbatore District includes improved methods of processing, modern simple implements and training facilities for unskilled artisans. The pictures show some of the main Small Industries like palm fibre processing, basket making, leather goods manufacture, Wardha Ghani, palm-gur, mat weaving, etc. Many of these village industries are organized on co-operative basis.



Shri Sri Prakasa, Governor of Madras, inaugurated the Fourth Medical Exhibition at Stanley Medical College. A large number of public and students visited the Exhibition.

Livestock Improvement and Development

Animal Husbandry in the Second Five-Year Plan

DR. D. PATTABHIRAMAN, G.M.V.C., A.I.D.I., Director of Animal Husbandry, Madras.

The Animal Husbandry schemes in the Second Five-Year Plan have been drawn up taking into consideration all problems connected with animals in health and disease and the experience gained during the First Five-Year Plan period, and cover all aspects relating to the development and preservation of livestock.

A sum of Rs. 344.80 lakhs has been provided for Animal Husbandry and Dairy schemes of this department.

The Animal Husbandry schemes included in the Second Five-Year Plan can be broadly classified under the following headings:—

- (i) Livestock improvement and development.
- (ii) Control of livestock diseases.
- (iii) Education and research.
- (iv) Dairying and milk supply.

The All-India Key Village scheme was introduced during the First Five-Year Plan with a view to improve the general efficiency of cattle by the adoption of scientific methods of breeding, feeding and management and to develop the cattle wealth of the country in ever widening areas in the quickest possible time. There are at present fifteen key village centres with sixty key villages attached to them. It is proposed to continue and expand the existing key village schemes by adding two key villages for each centre during the Second Plan period. The Second Plan also provides for an addition of twenty key village centres with 120 key villages attached to them. Four centres with 24 key villages are proposed to be opened during each year of the Plan. Each key village will have an artificial insemination centre which will cover 5,000 cows and buffaloes of breedable age.

Scientific Breeding.

With a view to overcome the shortage of the required number of breeding bulls and to intensify livestock improvement by the utilization of better bulls for breeding milch cows through artificial insemination in the urban areas of the State, it is proposed to start thirteen artificial insemination centres during the Plan period, in addition to the seven centres opened during the First Plan period which are functioning satisfactorily.

A considerable number of pedigree breeding bulls required for grading up of non-descript cattle are expected to become available from the key villages of the State. A scheme for the utilization of such bulls has been included in the Plan. According to targets envisaged, forty-two supplementary extension centres for utilizing bulls produced in the key villages areas are proposed to be established during the Second Plan period. Each centre will have twenty approved bulls for serving a compact area covering 2,000 cows of breedable age.

The scheme for the distribution of pedigree bulls has been in vogue for several years in the State and is very popular. This scheme is proposed to be continued during the Second Plan period, so as to meet the needs of the areas not covered by either the all-India Key Village Centres, the extension centres for the utilization of bulls produced in the key village centres, or the artificial insemination centres. According to the programme drawn up, sixty breeding bulls will be distributed during each year of the plan.

In order to improve further the local stock graded through the All-India Key Village Scheme and the artificial insemination centres, it is essential that the graded calves produced in the areas covered by those schemes should be attended to properly up to maturity

so as to make them available for breeding operations elsewhere. But there is a tendency on the part of the cattle owners to sell away their calves when they are young. In order to give an incentive to the cattle owners to rear their calves up to maturity it is proposed to pay a subsidy of Rs. 10 per calf per mensem from the date of weaning to the date of maturity, the total number of months for which the calf subsidy is paid not exceeding eighteen months in the case of each calf. Calves of both sexes, male and female calves, in breeding tracts and female calves only in non-breeding tracts, are eligible for subsidy.

Importance of Feeding.

An important aspect of livestock improvement is the proper feeding and management of animals. The effects of better breeding can be largely negated if the animals are not properly fed. Feeding also increases milk production of cows. The supply of green fodder so necessary for the healthy up-keep of cattle and milch cows is meagre. It is therefore necessary to provide adequately for increased production of fodder as well as its preservation. A scheme for the development of feeds and fodder resources in the key villages is contemplated under the Plan and it provides for increasing fodder production and adoption of approved methods of preservation by payment of Rs. 10 per acre of irrigated land and Rs. 5 per acre of unirrigated land in key village areas. According to the programme drawn up, 7,460 acres will be brought under the cultivation of fodder crops during the Second Five-Year Plan period.

During the period of the Second Plan, 13 units are proposed to be started for the organisation of rural herd and milk recording. In these units, regular recording of milk yields, conducting progeny tests, etc., will be done. Such

records are necessary for evaluating the results obtained from the breeding schemes so as to facilitate the selection of correct type of breeding stock for future use for breeding and milk production.

According to the provision in the Plan, four goshalas are proposed to be developed during the Second Five-Year Plan period. Only goshalas which agree to maintain productive animals will be aided. Each goshala which owns already animals of recognized breed will be helped by the donation of ten cows and one bull of good pedigree.

A special scheme for the development of goshalas is also proposed to be taken up in the State for the development of ten goshalas. Assistance will be rendered to ten private cattle breeders to establish ten goshalas at the rate of two per year. Small establishments owned by individuals who are cattle-minded and taking keen interest in the welfare of cattle and their improvement and who own a minimum of 25 acres of land and are willing to maintain 20 productive cows and set apart a suitable portion of their holding for raising fodder crops to meet the full fodder requirements of their cattle will be registered as goshalas. Each goshala will be given a subsidy according to the proposals, of Rs. 5,000 for repairing buildings, sheds, and purchase of equipment and a good pedigree bull for improving the herd. A premium of Rs. 300 per annum for the maintenance of the bull and an annual subsidy of Rs. 2,000 for the maintenance of the herd will also be granted. Calves born in these goshalas will also be eligible for a subsidy of Rs. 10 each per mensem for a period of two years.

Cattle, sheep and poultry exhibitions play a vital part in the efforts of Government to improve the livestock wealth of the State. The spirit of competition and healthy rivalry created by such shows is a great incentive to cattle improvement. These shows serve to educate and to encourage public on methods of scientific breeding, feeding and management of cattle, sheep, goats and poultry. During the years 1956—1961 five State shows and seventy District shows are proposed to be conducted.

New Proposals.

A cattle farm in Ramanathapuram district and a sheep farm in Chingleput district are proposed to be started during the first year of the Plan. These farms, besides helping to overcome the difficulty in obtaining male stock for breeding, will serve as demonstration centres in scientific breeding. In the sheep farm, research will be undertaken in well-known breeds of woolly and mutton types of sheep as also cross breeding for production of wool and mutton.

To improve soil fertility and to increase the fodder production, to make the farms self-sufficient in fodder and grains, it is proposed to introduce soil conservation measures in an area of about 3,000 acres in the Livestock Farms of Hosur, Malabar and South Kanara.

Construction of necessary residential and non-residential quarters in the existing livestock farms will also be taken up during the Plan period. Intensive cultivation of fodder crops in 325 acres in Hosur Cattle Farm will be undertaken under irrigated conditions in order to develop mixed farming.

The All-India Key Village Scheme contemplates the development of not only cattle but all other species of livestock also. For the intensive development of poultry in the key village areas, it is proposed under the Plan to introduce 20 poultry grading units.

In order to create enthusiasm in private poultry breeders to pay more attention to poultry development and to popularise poultry rearing extensively which will not only help to increase the per capita income of the rural fold but also raise the nutritional level of the diet, ten private breeders or associations will be given a subsidy of Rs. 1,000 each during each year of the Plan, the total number of such breeders or associations receiving subsidy being 50 for the Plan period.

Under the All-India Plan of Poultry Development, a regional farm will be started at Coimbatore with 25 extension centres. Each extension centre will get 100 birds and will be established in a development block. This scheme also contemplates the supply of cocks and pullets in compact areas and

training of breeders in poultry husbandry. The main object of this scheme is to improve the local breeds of poultry, through superior strains and increase the production of eggs.

Control of Livestock Disease.

To reduce mortality and to combat contagious and other diseases which reduce the vitality, productivity and working efficiency of the animals, it is necessary that this State should have adequate facilities for the protection of livestock from contagious diseases. The State of Madras is now practically free from rinderpest and it is proposed to divert attention to the control and eradication of other contagious diseases of cattle like Anthrax, Haemorrhagic Septicaemia, Black Quarter, Brucellosis, etc. For this purpose, a motorized mobile unit is proposed to be provided in each of the districts and advance inoculations and vaccinations carried out in the endemic areas. In addition, suitable measures are proposed to be taken for the control of ectoparasites and flukes.

As already mentioned, though this State is free from Rinderpest, the adjoining States are not yet free from the disease and the All-India programme of Rinderpest Eradication is in operation in those States. To meet the needs of this campaign, in the Southern region, with regards to biologicals, it is proposed to increase the production of Rinderpest Freeze Dried vaccine at the Institute of Veterinary Preventive Medicine, Ranipet, by 370,000 doses per year.

Under the Plan, it is proposed to open 97 Veterinary Institutions in the State to bring the total number of institutions in the State at the end of the Second Plan period to 195 for 120 taluks. Facilities in the existing institutions will be expanded considerably to increase efficiency by the supply of microscopes to the Veterinary Institutions, electrification of Veterinary Institutions, construction of buildings for Veterinary Institutions and quarters for staff.

Education and Research.

The expansion of the normal activities of the department, the execution of the schemes in the Community Development programmes, the five year

Milk Colony for City.

It is proposed to colonise cattle in a suitable place near the City by gradually evacuating the City Milch Cattle. In the first instance, a colony will be established at Madhavaram to accommodate 4,000 milch cattle. The target for the Plan period is the evacuation of 7,000 head of cattle from the City. There will be provision in the cattle colony for the care of dry stock, rearing of calves, veterinary aid, etc. Wholesome hygienic milk produced in the colony will be supplied to the City population. In order to supplement the supply of fresh cow milk in the City and in order that the poorer sections of the people may get milk at cheaper rates, it is proposed to install a new plant at the Government Milk Factory, Madras, for the manufacture of toned milk.

College in the subjects of (a) Therapeutics and Toxicology and (b) Gynaecology, separate chairs in these two subjects are proposed to be created in the subjects. The Animal Nutrition and Animal Genetics sections of the Madras Veterinary College which are of recent origin are proposed to be expanded into full-fledged laboratories and training sections for the graduates of the Madras Veterinary College and for research scholars.

There is an immediate need to develop the Institute of Veterinary Preventive Medicine, Ranipet, into a regional centre and to expand its productive capacity of biological, and increase facilities for research. Therefore, it is proposed to strengthen the Institute, by appointing a Pathologist, Bacteriologist, etc., with corresponding expansion of laboratories and building facilities.

plans, etc., have all created an acute shortage of Veterinary personnel. To overcome this situation, the number of admissions to the B.V.Sc. course of the Madras Veterinary College which was increased from 80 to 100 in 1954-55, has been further increased to 120 from the academic year 1956-57. Since the duration of this course is four years and the need for the personnel is very great, a shorter course of Veterinary training of 11 months' duration was introduced in the year 1954-55 with 55 admissions and this number has been increased to 100 from 1955-56. To meet the needs of the increased admissions, a three storied building with a lecture hall, laboratories and other facilities in the Madras Veterinary College and an additional hostel are proposed to be constructed. In order to impart specialized knowledge to the students of the Madras Veterinary

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Training in Poultry Farming

"Eggs or Chicks?" has been an old difficult problem for the philosophic minds but both the egg and chicken pose no problem to the common people. To them, they are solutions, sometimes easy and readymade!

The Government of Madras have sanctioned the institution of a training course in Poultry Husbandry in this State and the first course was inaugurated at the Poultry Research Station, Teynampet, last month. The Government should be congratulated on sanctioning this training course. This is a new scheme and not merely a training course for departmental men. This is pre-eminently a training course for farmers' sons and hence, a national scheme of immense possibilities.

Our country has a rich stock of poultry, for our statistics show that there are 73 million chickens in India. Although we have this large number of poultry, their economic value is very low, when compared to the improved fowls of Western countries. The fowl that we have in our country weighs less than 3 lb. and produces only 50 eggs of very small size per year when we compare with the improved fowls elsewhere which weigh 4 to 7 lb. and produce over 200 eggs of standard size per bird per year. These exotic birds produce such large number of eggs because of their scientific methods of breeding, proper feeding, etc. Our Government have realised the need for the improvement of the poultry industry and a number of Poultry Research Stations and Demonstration Units have been opened to supply breeding stock and hatching eggs of improved fowls to the public at a low cost. Poultry development is an important factor in our national economy, for it provides the much needed subsidiary occupation in rural areas. Much progress however could not be made in this as well as other branches of national development activities for want of qualified men to take up such activities.

Under our Second Five-Year Plan a large number of Poultry Demonstration Farms are to be opened. It is

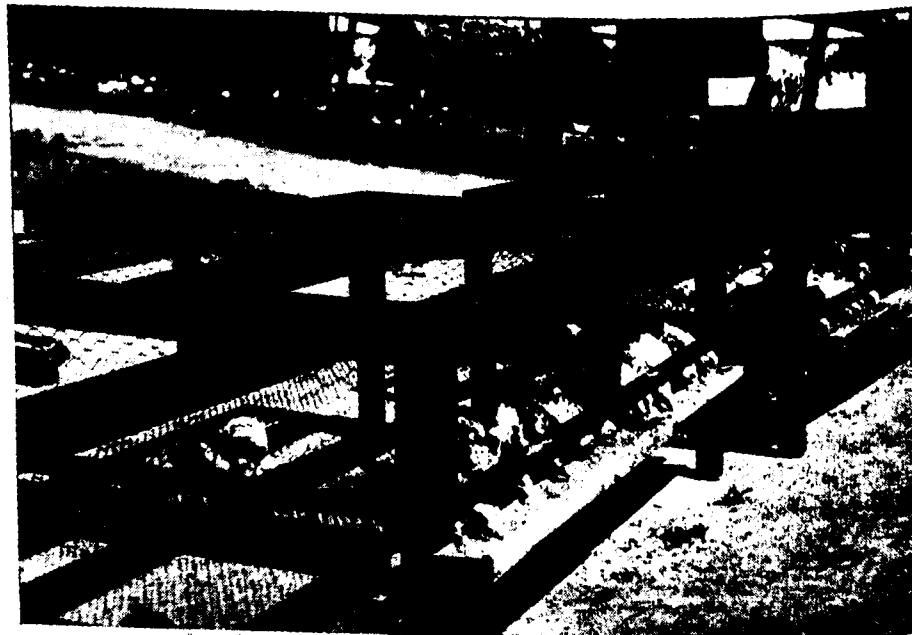
proposed to open 25 poultry units with 100 birds in each National Extension Service and other Development Blocks and to supply pedigree birds to the people at concessional rates. It is also proposed to encourage

SRI T. PURUSHOTHAM, M.L.C.

poultry breeding by private persons by giving them a subsidy up to a maximum of Rs. 1,000 each. Thirty-five poultry units in key villages will also be established to encourage poultry industry at village level. All these require the assistance of trained persons. I am glad that under the new scheme of training, several educated young men

have come forward to take poultry farming as a profession and to equip themselves with scientific knowledge in poultry husbandry. In view of the great need for technically trained personnel, this course of training in poultry husbandry has been instituted by the Government as a pioneer scheme and I have no hesitation that there is bright future for the young men taking up this course.

There is another important aspect of the problem. The Indian diet is very poor in calories and proteins. Eggs and poultry meat are indeed highly nutritive and protective food. The per capita consumption of eggs per annum is only 8 in our country when compared to what it is in Western countries, viz., 400 eggs per head per year. Apart from eggs being used for food, they are also used in confectionaries and catering industries. Eggs are necessary ingredients in some of the industries such as tanning, ivory work, preparations of paints, varnishes, medicines, soap making, glues, dyes, book binding and printers' ink. Poultry industry and trade can thus be made a flourishing proposition. There is great demand for eggs and poultry meat in many countries. As eggs and meat are highly perishable, of course, they cannot be stored over long periods. But



Young chickens being reared in portable Runs.



Mammoth Electrical Incubator at the Poultry Research Station, Madras—capacity 1,408 eggs.

modern science comes to our rescue, for these foodstuffs may now be stored under refrigeratory conditions without deterioration in their quality for long period. Eggs can be converted into frozen and powdered forms. Poultry meat can be canned and the machinery and equipment and technique required for the purpose are not elaborate or costly. Co-operative hatcheries and poultry production can be undertaken in our villages. All this is



Eggs under incubation in a kerosene-worked hot air Incubator.

possible, now that we have electricity in almost all the villages. Our country has thus a bright prospect in this branch of Livestock production, for, here is a cottage industry most suited to village conditions and I trust the Government will work out such progressive schemes with the trained personnel that will be made available as a result of comprehensive training in Poultry Husbandry and I wish some at least are sent abroad to study modern developments.

This training course now will consist of two batches of twelve students in each batch. The first batch will be

trained for four months from September to December and the second batch from January to April this year. Each student will get a stipend of Rs. 30 per mensem during the course. As I said primary object of this course is to attract young sons of the farmers and train them in scientific methods. That is the outstanding feature of this scheme and I trust after the training the young men will go back to the villages for developing the industry. I hope a large number of young men and women from rural areas will get trained year after year, so that the requirements of the expanding industry may be served thereby.

Facts and Figures

During 1955, India produced 6,613,200 bottles (2 oz. each) of fountain pen ink.

About 580,000 acres are now under potato cultivation in India.

Chemical and ceramic machinery of the value of Rs. 2,35,000 was manufactured in India during 1955.

Lead production increased to 2,234.4 tons in 1955 from 1,131.6 tons in 1952.

Estate Duty collections in India during 1955 totalled Rs. 1,44,69,884.

About 101,800 radio receiving sets were manufactured in India during 1955-56.

The Government of India have sanctioned Rs. 15.24 lakhs for road development work in Bombay, Hyderabad, PEPSU, Manipur and Tripura.

Train lighting dynamos of the value of Rs. 15 lakhs were manufactured in India during 1955.

The Union Government propose to subsidise the establishment of about 15 Tuberculosis demonstration and training centres in the country during the Second Plan period.



Feeding of chickens in waste and contamination proof hoppers.



Madras Museum—Zoological Gallery

Some Recent Notable Additions

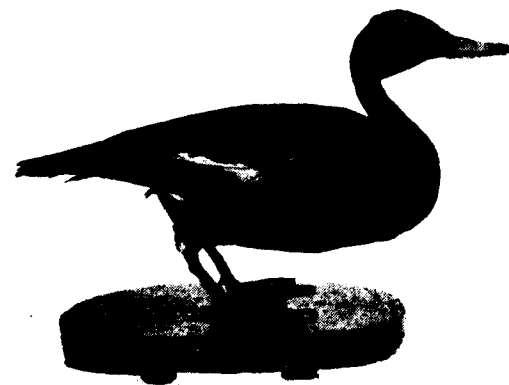
By S. T. SATYAMURTI, M.A., D.Sc., F.Z.S.

Perhaps the most valuable and unique among our recent zoological acquisitions were a pair of the *Pink-headed Duck* (*Rhodonessa caryophyllacea*)—perhaps the strangest duck in the world. When a pair of skins (male and female) of this remarkable duck was offered for Rs. 150 by Mrs. S. D. Inglis from her late husband's ornithological collections, I grasped at the opportunity and had them purchased for the Museum as I fully realized the

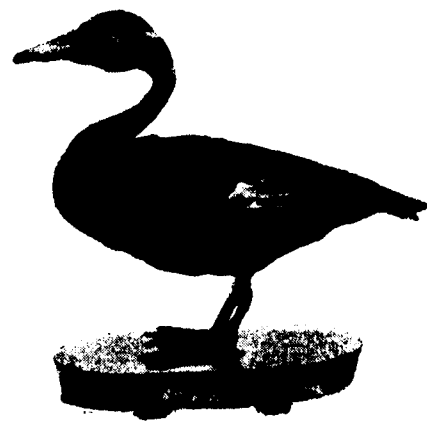
rarity and unusual value of the offer. Although the skins were rather old and rigid, the colour was still remarkably fresh on the feathers, and the meticulous care and skill with which our Taxidermist relaxed and mounted them as exhibits fit enough for display in our Bird Gallery were indeed admirable. They have now been displayed in a separate show case with a distribution map and a descriptive label, but in due course we hope that it would be possible to have them installed in a modern, illuminated diorama with a painted background.

The Pink-headed Duck is perhaps the rarest, most interesting and certainly the most "romantic" species of Duck. It is about the size of a large Mallard, but unlike it, carries its neck erect, when swimming. Its habitat is among the small plains lakes of the remotest hinterland of Bengal, north of the Ganges and west of the Brahmaputra. A few are said to be found in Orissa, Oudh and the Nepal Terai. It seems strange to reflect that only as far back as the 'nineties' the Pink-headed Duck could be bought in Calcutta markets

for as little as Rs. 15 each. Yet a few years ago, Mr. Stewart Baker wrote: "Forty years have elapsed since I saw it and no reward has sufficed since then to induce 'shikaris' to visit its breeding places and find me a nest of eggs." He added that in spite of its rarity he considered that it would be many generations before it would be definitely



The Pink-headed Duck: Female.



The Pink-headed Duck: Male.

Grey-bellied Tragopan.



The Grey-bellied Tragopan: Male.

The most recent and perhaps the most gorgeous of the bird acquisitions from the Zoo is an exquisite male specimen of the Grey-bellied Tragopan (*Tragopan blythi blythi*). Tragopans are popularly known as Horned Pheasants, distributed throughout the Indo-Chinese Mountains from Kashmir to China. The males are magnificent birds with a brilliant orange-crimson plumage and beautifully ocellated feathers on the back. The Grey-bellied Tragopan is found principally between 6,000 and 9,000 feet in dense evergreen forests in the Himalayas south of the Brahmaputra and in the hills of Assam and North-West Burma. It feeds on seeds, berries, fruits and buds and also on insects and worms. The males bear two small fleshy horn-like wattles on the crest which are inflated and displayed to the hen during the breeding season. In shape, these birds appear like huge partridges to which they are more nearly related than to the pheasants.

Jungle Cat.

The Jungle Cat was mounted from a specimen of the skin and skull kindly donated by Lt.-Col. E. G. Phythian-Adams, Secretary of the Game Association at Kalhatti, Nilgiris. The present specimen belongs to the sub-species which is confined to Ceylon and South India, although Mr. Deraniyagala has proposed the new sub-specific name *Felis chaus valbala* for the South Indian race, while retaining the name *Felis chaus kelaarti* for the Ceylon form (*Spolia Zeylanica*, XXVII, pt. ii, 1955, page 291). Jungle Cat inhabit the drier and more open parts of the country, keeping more to grass-land, scrub jungle and banks of rivers and marshes overgrown with reeds. It preys on small mammals and birds, and when near villages it frequently proves a menace to poultry. It is very swift, extremely strong for its size, and is quite capable of overpowering larger game. The newly mounted specimen has joined his feline cousins in the huge Felidae case in our Mammal gallery.

Rare Birds and Mammals

affected by the spread of civilization and progress, inhabiting as it does, "only the wildest country, the haunts of tigers . . . whilst its malaria-stricken tracts are avoided by both white and black men during the breeding season."

As a rule it collects in small parties, and breeds in dense forests and jungles, making a nest of grass and weeds in tangled undergrowth near the edge of remote forest pools and swamps. It feeds on both vegetable and animal food, and its flight is fast and powerful. Of all our Indian Ducks, this is said to be the most shy, wary and secretive. Half a century ago, this Duck was reported to be common, but at the present day, it is extremely rare, and few men know where the last of this vanishing species is to be found. The specimens we acquired from Mr. Inglis' collection were collected from a *jheel* in the Darbhanga District of North Bihar. The bird has always been very rare in captivity, and Philips records only one pair as ever having reached the London Zoological Gardens. That was in 1847 and they died soon after. Several pairs were sold in London in 1897 at prices ranging from £ 40 to £ 60 a pair.



The Jungle Cat: Male.

Conditioning Reflexes for Development

In his contribution 'Yajna,' the President Sri Rajendra Prasad, estimated that the employable adult males in the villages 'have on an average half the year as idle time on their hands.' The Farm Labour Inquiry report places the unemployed labour even higher in some States. The significance of this enforced leisure is not realised. The result is that there are no schemes of development which are related specifically to the removal of a running defect of a grave nature. If half the population, leaving women out, makes no return, it must depress not only agriculture, but industry, not only villages but towns, subjecting the whole economy to parasitic action.

III. Deficiency in Employment

The consequences of unemployment may be seen both in the aggregate of production and consumption of the country. Half the labour disengaged means half the productive work undone. This is particularly so in India, where unemployment is not due to saturation in production. When gross deficiencies exist in the quantity and variety of food, roads, public and private buildings, afforestation, irrigation, and almost every public and private service, all the labour available can be engaged for years to come. Secondly unemployment, paradoxical as it may appear, increases costs and

SRI J. M. LOBO PRABHU, I.C.S.

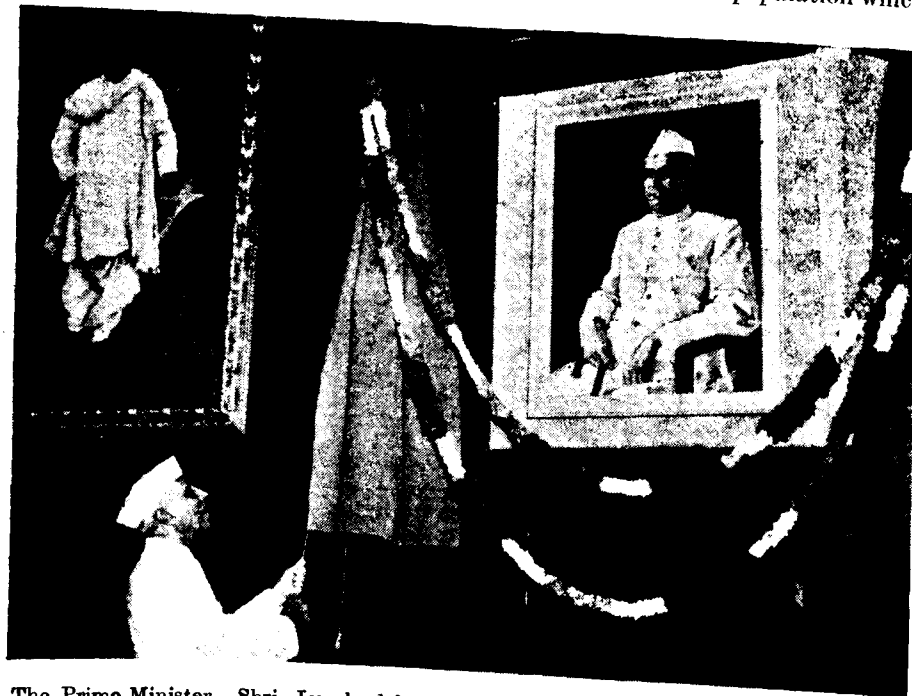
wages for the reason that men must earn in their employed time enough to keep themselves going for the whole year. Thirdly unemployment eats up income of the earners leaving no saving on which life can be diversified and

lives but does not work. This may appear exaggerated, but, is, on analysis, the simple truth. If a private enterprise cannot afford idle labour, the State which represents the totality of all enterprise is impoverished similarly by those who make no return.

A Staggering Problem.

To find employment for as many people as are working now presents a staggering problem in finance and organisation. The Second Five-Year Plan is despondent about reducing the present proportion of unemployment. Of the 15.3 millions totally unemployed, the Plan can envisage employment for about 8 millions. For the underemployed the Plan foresees increase in income from various development schemes. The amount of investment which can be put through is stated to set a limit to new employment. In the circumstances it is necessary to see what experiments for full employment should be tried in community projects which can relieve unemployment without further cost.

There are three categories of employment, first which the villager can render to himself, second to private individuals and third to public projects. Much of the deficiency in working and living standards is due to the villager's inertia to change his practices. This inertia can be overcome first by visible example, and second by financial help. Mention has already been made of subsidies for agriculture dependent on hard work required for new methods. In respect of improving housing condition an experiment was tried in the Chingleput district to offer the paltry sum of Rs. 5 (in materials) to those who gave a 'new look' by plastering, white-washing their walls and thatching their roofs. Some students in camp started the work. In the result, the villagers expended many times the labour and material given, incited by the bait and excited by what was shown as possible. Every village became anxious to have the new look and some started without help. There are hundreds of things the villager wants in his house and in his field,



The Prime Minister, Shri Jawaharlal Nehru, performing the unveiling ceremony of a portrait of the late Shri G. V. Mavalankar, former Speaker of the Lok Sabha, in the Central Hall of Parliament House, New Delhi, on September 7.

which can be made by his own labour, if only the way is shown and some help given as a starter. The discovery of those potentialities is an endless process for which only the beginning has to be made. Women and children can join the men, and in the total a good part of the idle time of the villager can be engaged in making his living conditions better; what the European and American farmer does with his spare time, to improve his house and farm, the Indian would do, with greater earnestness if only he be shown this and started, with some help on the road of discovering himself and his interests.

Towards Full Employment.

In respect of work for public and private projects in the Second Five-Year Plan of the Chingleput district plans were prepared for 45 villages to engage the full time of everyone. Estimates of the man hours available, on one hand, and of the private and public projects possible were drawn up. The workers agreed to take half the current wage for public works, and three quarters of it for private works, if they were engaged in the periods of their idleness. The private employees were encouraged by the reduction in costs, while to the workers, the income was something they never had before during their idle periods. As a Scheme for employment insurance, which at the same time added to public and private amenities there was nothing better. As and when the general standard, of the workers from the new wages, and of employers from new amenities rose, the Scheme would generate its own work.

There are two other proposals for full employment, first a scheme for minimum wages, and second a scheme for unemployment insurance. Minimum wages for agricultural labour have been engaging the attention of Government for a long time. They have been generally resisted on grounds that food production would be reduced with consequent rise in prices. There was also apprehension that the volume of employment would be reduced by the employers doing their own work. What was forgotten was that increase in wages has not reduced production in any country because wages mean more purchasing power on which production primarily depends. Minimum wages mean more because they convey purchasing power where it is

most needed. Volume of employment is related to prices, and these are not reduced by appropriate wages.

In respect of unemployment insurance, I have for many years been suggesting that we could try a new variant in the special circumstances of the country. Anyone enlisting for employment could be guaranteed a minimum wage in public projects as near his home as possible. It is not likely that the labour which offers itself will be excessive, but if it was, it would be in the country's interest to increase its projects. The employment exchanges could do the place-

ments, and if it involves some movement of population, it will widen the experience and outlook of the villager. In any case, such employment insurance is a necessary counterpart of the system of minimum wages.

Experiment in Extension.

In the Community and Extension Blocks these proposals may be experimented, one in each village. The result should be evident very soon, to enable a proper determination, on one hand of the cost, and on the other of the economic effect.

IV. Deficiency in Consumption

The Agricultural Labour Enquiry Report has furnished valuable information of the consumption pattern of the working classes. Whatever we may think of development, it is the consumption pattern, its size and distribution which alone reflects the real condition of the people. Hospitals, schools, roads, recreation centres, improved holdings are only means, of which the real end is to increase the content of life.

The Plight of the Peasantry.

The Enquiry revealed a most distressing position. The annual income

of the agricultural labourers family ranges from Rs. 340 in Orissa to Rs. 941 in Pepsu, the larger number of States showing incomes below Rs. 400. Roughly an Indian agricultural labourer's annual income is about equal to the weekly income of an American labourer. The proportion deserves to be carefully observed because, not only does it show the poverty of our labour, but also its incapacity to support comparably the economy in other sectors.

The distribution is as distressing. Between 84 to 89-50 of the total



Inauguration of the Integrated Field Publicity Scheme in Coimbatore District—Sri K. Kamaraj lighting the lamp.

expenditure is on food. This would imply that the labourer lives as his remote ancestors did, on the produce of the village, with little reference to what is produced elsewhere. As a consumer he is therefore insignificant outside the agricultural sector. He does not support the modern advance of the country.

The expenditure of the balance is not impressive. In Madras, an average family of 3.4 units spends out of an income of Rs. 365 only Rs. 27 on clothes, Rs. 4 on fuel and lighting, Rs. 4 on house rent and repairs and Rs. 32 on Services and Miscellaneous. It is difficult to think how a man, his wife and three children can be clothed in Rs. 27. Even more impossible it is to understand that only Rs. 4 are spent on the house and its maintenance. The break down of the expenditure of Rs. 32 on the Services and Miscellaneous provides no relieving features. Rs. 12-8-0 is spent on tobacco, Rs. 1-0 to 16-5 on pan supari, Rs. 0-8 to 6-5 on washing soap and Rs. 3 on medicine. Only the last two items appear as a concession to the civilisation of the time.

It is impossible not to be shocked by these figures. In an age of science and democracy, in a country recognised almost as a great power, the village labourers, who form a very significant proportion, are living at the barest remove from nature. The small cultivators are not very different from these labourers. In any case their houses and ways of living are not

clearly distinguishable. The larger peasants have better houses but it is doubtful if an inquiry in their pattern of expenditure would show much difference except in the proportions of their savings and their socio-religious liabilities.

Diversifying the Consumption Pattern.

It is therefore the foremost problem of development to increase and diversify the consumption pattern. The increase will have to be absolute, as it is impossible to divert any of the expenditure on food, which is already the minimum. In the first place the State will have to create new employment opportunities for agricultural labour, which is unemployed for the greater part of the year. Given the finance, this should not be difficult, as there are so many tasks in the villages, road construction, house building, irrigation, afforestation, on which this labour can be fully employed. If finance is a limitation, then Schemes like the one tried in Bengal deserve to be introduced by which the villagers make better things for each other, to be disposed by barter among themselves. As the villagers may lack the organisation and drive necessary, in the beginning the State will have to buy the production, making sales by barter to the extent possible. If any loss arises, it will not be considerable, and can be regarded as the cost of introducing a system of making the villagers use their time for things each other needs.

The question still remains if the labourer will spend his increased income on the desired pattern. Centuries of austerity have disposed him to avoid anything but necessities. There is even conventional opposition to new things. A whole series of ingenious arrangements are necessary to attract and accustom the villagers to new habits of spending. Only very slowly and deviously the villagers' natural instincts for comforts and pleasures can be warmed. If some expenditure is involved, it will be repaid from the new impulse in the economy for better things which will provide employment to the artisans and march production with consumption and enable the living standards to come in line with those of other democracies.

A "Model Home" for every Village.

It is human nature to have good things, when others have them. This implies that somehow new fashions must be introduced in villages. There should be first, in every village a "model home" preferably for some one who belongs to the scheduled classes. In this home, there should first be adequate accommodation for the inmates. This may imply construction of a house on a subsidy or loan basis. Next the house must be moderately furnished, neatly kept, being an object of pride to the inmates. Thirdly the diet, way of living may follow prescribed standards. Fourthly the inmates may be suitably dressed. The question is natural how the cost, say of about Rs. 1,000 is to be met. In a block of about 60 villages, the estimate may be



Sri M. Ananthasayanam Ayyangar, Speaker, Lok Sabha, Sri K. Kamaraj, Chief Minister, Madras, and other distinguished guests at the Tea Party given by the Governor at Raj Bhavan to meet the delegates to the Conference of Presiding Officers of Legislative Bodies in India on September 17, 1956.

Rs. 50,000 which will be considered disproportionate as it will be for individuals and not for the village. The actual cost may be reduced, if only part of it, say a quarter is given against the balance being found by the owner, which may be possible in many villages. Further the expenditure should not be conceived as on an individual as such; first, because it is intended for demonstration, and second because it can be the shape of a prize, offered to the most responsive family in the village. Such a gift and such a house will not only be an example; it will also be a challenge particularly to the higher castes. Surely, though perhaps imperceptibly envy will drive other villagers to copy, even excel what is shown as possible for one of them. Particularly if he is a Harijan, the challenge will be stronger; the higher classes will not allow themselves to be outdone, while Harijans themselves will be excited by what is within their reach.

As with the house, so with clothing, a beginning may be made with one case. Prizes to be awarded may be in the shape of clothes. Women particularly will not fail to copy a walking model in their midst. If they are badly clothed now, it is because they think good clothes may only be worn in towns and on occasions. If one of them can wear them in the villages, it is possible that their general frustration may find an outlet in clothes, which may even be excessive. Of course the question can be asked why the villagers should be better dressed. The answer

is in the philosophy of clothes, which Carlyle expounded a century ago; that as a man dresses, so he thinks and acts. Dirty, ugly clothes dispose people accordingly.

The best course would be to make a beginning with children. It is well known that the better schools in towns which insist on a uniform for their students, do so, not only to identify the school, but to give a character to the students. The clothes carry responsibility for department and to a way of living. If children, even in primary schools were provided with uniforms, the simplest say *khadi* shorts and shirts, the rising generation will have an awareness of change in themselves and in their circumstances. We shall cease to be a nation of *coolies*. The price for this change has to be paid. The cost, say of two sets a year may be considerable in the aggregate, but only the poorest children may be given free supplies, the others being made to pay according to their means. It will be a measure of socialism, both practical and visible, of which the reaction will more than can be measured.

Co-operative Consumers' Shop.

There are two other expedients which can teach useful spending to the village. The first is the establishment of a co-operative consumers' shop in each village, not only to sell the products of the villages, but also to sell items, which workers buy in towns. At present the few village shops which stock consumer

goods add a large margin to the prices to insure themselves for lack of sales. The villager who is deterred by the prices and condition of these goods, does not go to towns, but just learns to deny his demand. A shop, particularly, if it is in a chain, which sells fresh goods at reasonable prices, will soon build its demand. If there is some resistance, in the beginning, the expedient of paying part of wages and prices in coupons only exchangeable against items considered desirable, like soap, cloth, house-hold utensils and equipment can be tried. It may look like interference to compel purchases in this way, but it will serve two important purposes, first to enforce a consumption necessary to improve living conditions, second to enlarge the demand for desirable industrial production. The coupons may be in a small percentage, not exceeding 5, in the wages paid on public projects, and grain sold in large markets.

Is so much trouble and expense justified to teach new habits to the villager? The answer is that unless definite and concrete provision is made, the villager will continue to spend the income he does not save, on food only. His life will remain at the lowest level, denying to the country the legitimate support which agriculture must give to industry. If we are to be a first class nation, our population must lead a life of comparable comfort and civilisation. The country cannot be modern, if the largest masses of the people, live in the remote past.



Dr. P. V. Cherian, Chairman, and Sri N. Gopala Menon, Speaker, Madras Legislature, entertained to dinner the delegates to the Conference of Presiding Officers of Legislative Bodies in India on 17th September 1956 at the Marina Restaurant. Among those who attended were Shri Sri Prakasa, Governor, Sri M. Ananthasayanam Iyengar, Speaker, Lok Sabha and others.

V. Erosion by Population

The problem of population besets all development activities, as material gains are cancelled when they have to be divided among a greater number of people. The cultivated land fell from 111 cents per capita in 1891 to 84 cents in 1931. The corresponding fall for irrigated land was from 16 cents to 14 cents, for double cropped land from 12 cents to 10 cents. Since 1951, there has been an increase in the total cropped area from 326 to 360 million acres, but at the same time, the population has been estimated to be increasing from 360 millions in 1951 to 410 millions in 1960, which more than dissipates the increase in the rate of cultivation. In village industries there has been no absolute, not to speak of corresponding improvement. Factory workers have not increased in spite of the growth of factory production in the last five years. Looked at from any side, population seems to be defeating development by slow but steady erosion.

Need for a Cultural Metamorphosis.

The Community and Extension Projects have so far not concerned themselves about population. They have proceeded on the sound theory that if the standard of living can be raised, there is a biological tendency for the population to fall. The increase in the standard of living however has to be

very marked to act as a deterrent to population. Slight increases in productivity tend rather to increase than arrest the population. To be really competitive with the procreative urge, the standard of living should offer gratifications which not only absorb the people but make them change practices like marriages of children, seclusion of women, employment of children, the joint family system and overcrowding in houses. A cultural metamorphosis is necessary not only on the physical but also on the social side.

The question is, if Family Planning can achieve a limitation of families. In European countries, the experience is that contraceptive measures are successful only in the higher strata of the population. In the villages, our population is below the lowest strata of European countries, and it is idle to expect that it will have the patience or the capacity to practise contraception. It is idle also to expect that anyone will submit to surgical operations. We cannot therefore expect Family Planning to improve the standard of living, though the reverse may be possible in due course.

Population can be halted only indirectly, first by information about the adverse effect of child marriage. There seems now to be a conspiracy of silence

on this subject, which once excited much interest. This is not due to any change in the practice but to pre-occupation with other matters. Propaganda deserves to be revived particularly through films and dramas. Child labour is the cause of population because the economic value of the labour compensates what little cost is incurred in rearing children. It is also defeating the drive for compulsory primary education. It may be necessary to consider extension of legislation now confined to factories against employment in agriculture of children below a prescribed age.

Seclusion of women has the result of making them chattels for the procreation of children. Not only have they no means of knowing better, but being confined to their houses, they have no means of doing better. In proportion women are introduced to play their part in social life, they are more likely to understand the advantages of smaller families and wider interests. For a new but very strong reason therefore, women in development areas must be trained to share in the social life of the village.

Bad housing, which throws people of both sexes promiscuously together does excite early and frequent intercourse. In many village houses people almost sleep touching each other. The provision of light air and space in the living quarters of the population can prove as good a measure of Family Planning as any other.

The Joint family indirectly helps overpopulation as everyone is entitled to a share, and in any case can live on the family. The Planning Commission has given a cue by suggesting that holdings below a certain size may be indivisible. In effect this will be a system of primogeniture which in Europe was an essential feature of the agricultural economy. It had also the effect of diverting the surplus population to other avocations.

All these indirect checks on population are of general interest but they can be tried in villages of Development blocks before they are enforced throughout the country. Their importance to development is that unless population is checked, development will remain subject to erosion, in a measure that will prevent its being at all visible.



VI. Poverty of Incentives

Every rural worker comes up against the blank wall of the people's lack of interest in themselves. While in some villages, interest in the community may have been generated, there is no sign that the villager has become aware of his own potentialities. While it is in the tradition of this country to think of general before personal interests, and while in the West there is a reaction from the wild growth of personal interests, we cannot expect dynamism in our villages, until incentives are created for individuals. If there has been no commensurate return for the money and effort lavished on development, the reason may be that by nature men cannot be enthusiastic about others when they are not enthusiastic about themselves. Though it may go against our grain to admit that individuals are selfish, it will go against the movement to assume that without improving themselves they will improve the village. The discovery of the proper incentives is therefore an urgent preliminary to the success of development.

Rural Migration to the Towns.

It will be useful to compare rural and urban communities in the matter of incentives; because admittedly there is dynamism in towns, even in villagers who migrate to them. The towns want, demand and get better things, while villages dread change and cling even to habits shown to be detrimental. It may be because villages have roots, while towns are of recent growth, with transient populations. It may be because history has treated villages and towns differently, the former to be exploited in favour of the latter. But in reality towns are dynamic because they nurture incentives, which are unknown in villages.

Money is a common human incentive, but in villages it is played down. In the first place the villagers use little money in their daily transactions. It has been calculated that the 80 per cent of the population, which lives in villages, do not use 10 per cent of the total money supply. After paying rents, and making small purchases of necessities like salt, oil, cloth, the villagers either hoard their money or convert it into jewellery. Changes in the value of money, too

frequent of late, increase the preference for jewellery. Absence of opportunities to spend, scarcity of cash incomes, paucity of public expenditure, all tend to reduce the importance of money both as a means and as an end. It is not possible to inculcate money as an incentive, but if Government increased its expenditure in the villages, persons and places using money would increase, giving the village more awareness of money.

Houses are a mark of the towns. As soon as an individual can afford it, he rents or builds a house in which he finds destination. In the villages, history imposed poverty of appearance as a means of survival from the strong and rapacious. The house therefore was a camouflage to avert the attention both of fate and man, a tendency which persists in spite of obvious discomforts. Ill-health, disrepute on one hand, with knowledge and ability to change on the other. If some degree of house pride could be instilled in the villagers, there would be not only material, but also psychological gain. The villager would work better, think better and live better, once he escapes the cramping influence of the hovel to which he is condemned now.

Women, are a strong incentive, but in villages they are confined to their houses, playing no part in community

life, to soften and stimulate men into civilisation. Accordingly men tend to be careless, dispirited, not only in their manners but in their methods because they do not care much to please each other. From the time of the Greeks, and even in the Vedas, women stimulated men to their best efforts. A degree of chivalry in inseparable from civilisation. If women could only play in the community, a little of the part they now play in their homes, a new atmosphere will come to the villages.

A. Pendulum between two meals.

Competition is a sign of the towns. Fashions in clothes, manners, methods and tastes, set by the forward travel the way down. This is not only due to the climate of behaviour, but also to the opportunities that exist to satisfy requirements. In the village neither do the people want, nor can they get anything new. Persons who break the uniformity of the village are swiftly discouraged by imputations on their character. No one may spend money unnecessarily, except on jewels, without being suspected.

Amusements draw a large part of the townsmen. People use their leisure to enjoy themselves at sports, cinemas, hotels, and shops. Money is generally spent and not saved. Films are a potent influence not only because they show new modes, but also because they project the audiences into



the lives they see. Few villagers see films while village songs and dances are generally dying out. Life is simply a pendulum between two meals with work and worry during the day and wife and mosquitoes during the night. The result is a torpidity of temper in which nothing matters.

Work while you play, play while you work.

The Community Project programme broadly recognises that the villager must not only work but must also play. Unfortunately occasional dance and drama, programmes, and sports for the young in some places cannot add substantially to enjoyment of life. The simplest strategy is to increase opportunities for spending, corresponding to the new opportunities for earning. There must be more money and more ways of spending it. Shops of consumer goods, if possible on a co-operative basis, deserve to be sponsored. In Wales, when the miners had lost interest in their work, the mine owners established shops of the most attractive kind. The International Planning Team thought that women would be important consumers who could support a programme for small industries. Women would at the same time tend to leave their seclusion. House construction will also constitute an important stimulant to increased work and spending.

In the existing conditions, one incentive which I could exploit is the villager's pride, the last refuge of his frustration. This has to be diverted from fueds and litigation into activities socially beneficial. Public office is an outlet, and the existing rules already provide for investing the members of the village committee with honour and precedence. I went a step further, following the Russian method of wall publicity to notify in large charts, the names of the President and Secretary of the Village Committee. Other names in the chart were those of individuals who held records for the best cultivation, best cattle, best house, and highest social service. Another chart, side by side gave the resources of the villages, the area cultivated, irrigated, improved, cattle and houses; improved and otherwise; the population, literate, school-going; A third chart gave the results of physical contests in the various age groups,

best baby, best boy or girl under 10, under 16 and under 21. All three charts had three columns for three years, to show improvement achieved. Occupying a large wall space, and on bold letters, the charts arrested the attention of everyone, gratifying thereby the persons published, to the point that everyone was on toes, to get on the charts and to remain there for three years. The cost of painting the charts was small and was met by the villagers themselves. An extension of the same method of publicity was to point the name of the owner on houses given the new look. In some villages boards were also set up to indicate the best field, and its ownership. The visual succeeded in a degree I had not expected, making everyone anxious to render the best account of himself in order to obtain publicity.

Continuous Search for Incentives.

For women and young men, apart from the physical contests, another incentive was found in the organisation of a troupe of development volunteers, smartly dressed, the women in colourful saris, the boys in uniform like the police, with brassbadges, which they wore with or without the uniform. A programme of work was drawn up for the volunteers, to be carried out in the houses assigned to them. The best effect however was from the sartorial standard set. The village woman began to copy the saris of the volunteers, while khaki shorts and shirts, without badges of course, became the fashion among the young men. A pride in personal appearance, wholly unknown before began to show itself.

In the same line was the effort to set up one ideal house in the village, clean, furnished and equipped to the extent possible. A consequence of this, which had not been specially provided for was that the women and children in the ideal house began to dress better. Some tendency to copy to such houses was also evident in a few villages. Somehow the villagers were more enthusiastic about what was done for his person and house than for his field or occupation. This may be because the first is the end, and the second only the means. Sometimes exhibition of the End, is more important than that of the Means.

Another extension of the visual method was the maintenance of graphs in each village, showing the targets of different items of improvement, and the progress made monthly. One copy of each village graph was maintained by the Village Level Worker, to be submitted to the Block Development Officer, at the monthly meeting. This not only made the work precise, but kept the village and the village level worker target conscious.

The search for incentives has to be continuous, and every experiment deserves to be encouraged. The villager has to be rescued from the complex of self effacement forced by history on him. The suppressions to which he is subject affect not only his life, but also his work. Like his opposite number in the towns, he should be helped to enjoy himself. If he is regarded only as an instrument of production, no new dynamism is likely to be introduced in our villages.

(Concluded.)

(Continued from page 10)

New Features.

Particular mention may be made of the lessons on "Good English", introduced for the High Schools last year, which were very successful. This year also the lessons will be continued conducted by Mr. F. L. Billows and Mr. Kuruvilla Jacob. The first lesson will be at 2-10 p.m. on July 9. Of equal interest and use will be the English lessons for Middle Schools at 12-30 p.m. on Wednesdays, in which recorded programmes of lessons prepared under the supervision of Mr. F. G. Pearce, Principal, Rishi Valley School, will be broadcast.

Inter-school debates, Nature Rambles, in which Primary School children will be taken to observe the various manifestations of Nature, and dramatised presentation of selected portions from the prescribed non-detailed textbooks for the S.S.L.C. and broadcasts on the life and work of some of the authors whose writings find a place in S.S.L.C. selections, will be other features of the School Programmes.

India's exports to Tibetan region of China during 1955-56 were valued at Rs. 2-64 crores.

Recommendations of the Finance Commission

Distribution of Income-tax between Union and the States

The Finance Commission have to make recommendations to the President on the following matters:—

(i) The distribution of the net proceeds of income-tax between the Union and the States and the allocation of the States' share among the States;

(ii) the distribution of other divisible Central taxes like Union excise duties;

(iii) the amounts to be paid to the States of Assam, Bihar, Orissa and West Bengal in lieu of the assignment of any share of the export duty on jute and jute products;

(iv) the principles which should govern the grants-in-aid of the revenues of the States out of the Consolidated Fund of India;

(v) the States which are in need of assistance by way of grants-in-aid of the revenues of those States and the sums to be paid to those States, having regard, among other considerations, to the requirements of the Second Five-Year Plan and the efforts made by those States to raise additional revenue from the sources available to them;

(vi) the principles which should govern the distribution of the net proceeds of the estate duty in respect of property other than agricultural land;

(vii) the modifications, if any, in the rates of interest and the terms of repayment of the loans made to the various States by the Government of India between the 15th August 1947 and the 31st March 1956.

At present, 55 per cent of the divisible net proceeds of income-tax (other than Corporation Tax) is assigned to the States and distributed among them in the following percentage ratios:—

State.	Percentage.
Andhra	5-49
Assam	2-25
Bihar	9-75
Bombay	17-50

State.	Percentage.
Hyderabad	4-50
Madhya Bharat	1-75
Madhya Pradesh	5-25
Madras	9-56
Mysore	2-45
Orissa	3-50
PEPSU	0-75
Punjab	3-25
Rajasthan	3-50
Sourashtra	1-00
Travancore-Cochin	2-50
Uttar Pradesh	15-75
West Bengal	11-25

The shares of the States have to be refixed as a result of the impending reorganisation and new percentage recommended for the reorganised States.

The share to be retained by the Centre also has to be determined.

The present allocation is broadly worked out on the basis of 80 per cent by population and 20 per cent by collection.

The basis of distribution of income-tax has always been a matter of controversy. Various bases have been suggested for allocating income-tax:—

(i) the collection of income-tax in the various States;

(ii) the amount of income-tax realised in respect of income, wherever earned, of individuals resident in the different States;

(iii) the collection of income-tax in the various States adjusted with reference to the origin of the income;

(iv) the relative population of each State;

(v) the relative volume of industrial labour in each State;

(vi) the needs of the different States according to various criteria; and

(vii) different combinations of the above factors.

Three Union duties of excise, namely, those on matches, tobacco and vegetable products are now divisible between the Centre and the States and 40 per cent of the net proceeds are distributed among the States on the basis of population. The quantum of the taxes to be transferred to the States, the excises to be continued or made divisible and the basis of distribution, all fall to be considered by the Commission.

The first Finance Commission recommended that the grants-in-aid of Rs. 75 lakhs each to Assam and Bihar, Rs. 15 lakhs to Orissa and Rs. 150 lakhs to West Bengal be paid each year in lieu of the assignment of a share of the export duty on jute. This Commission have to consider whether any change in the figures suggested by the first Commission and accepted by Government is necessary.

In Chapter VII of their Report, the last Commission formulated certain principles to govern the payment of grants-in-aid to the States which they themselves had applied in making their recommendations. This Commission will re-examine these principles in the light of subsequent developments and the changes in the practice in other countries and indicate any changes necessary in them.

The Commission have to make recommendations regarding the States in need of assistance and the sums to be prescribed as grants-in-aid of the revenues of such States. At present, Assam, Mysore, Orissa, Punjab, Sourashtra, Travancore-Cochin and West Bengal are in receipt of general grants-in-aid as a result of the recommendations of the last Commission. This commission will re-examine the financial position of all the States and make recommendations to the President regarding the States in need of assistance and the sums to be prescribed as

grants-in-aid of the revenues of such States. A large variety of considerations may enter into the determination of the need of the States and these may differ from State to State. The Commission will also consider the nature of the grants-in-aid such as whether they should be fixed or progressive, general or specific, conditional or unconditional.

In addition to the general grants-in-aid which some of them may be receiving, Bihar, Hyderabad, Madhya Bharat, Madhya Pradesh, Orissa, Patiala and East Punjab States Union, Punjab and Rajasthan are in receipt of special grants-in-aid for the expansion of primary education. The Commission will assess the results achieved by the specific grants given to these States.

The net proceeds of the Estate duty on property other than on agricultural land is now being provisionally distributed among the States in the same way as the States' share of the net proceeds of taxes on income other than Corporation tax. In other words, it is being distributed by the percentage ratios fixed by the States for income-tax except that the Centre does not retain any portion of the receipts except those attributable to the Part C States. A more permanent basis of distribution has to be formulated by law of Parliament. An important issue, in this connection, would be whether the duty should be distributed on the basis of percentage ratios, whether arrived at on the basis of the percentage ratios prescribed for the distribution of income-tax or otherwise, or the distribution should be on the basis of assessments, the location of the property taxed, the residence of assessee, etc.

Central loans have been given to the States for a variety of purposes ranging from the construction of big irrigation and multi-purpose projects to the construction of minor irrigation works, grow-more-food schemes, famine works, rehabilitation of displaced persons, etc. Some of them have also been given loans to cover budgetary deficits. The terms of interests and repayment of these loans vary for different categories of loans. These will be reviewed and any changes necessary in the interests of sound finance indicated.

The Finance Commission would welcome the views of those who are interested in and have made a study of these questions. They would be glad if such views could be embodied in a self-contained memorandum and sent to the Secretary, Finance Commission, to reach him on or before the 30th November 1956.

Book Review

EXPERIMENT IN EXTENSION—The Goan Sathi.

Compiled by the Extension Project of the Allahabad Agricultural Institute and published with the assistance of the Ford Foundation by Geoffrey Cumberlege, Oxford University Press, page 239, Price Rs. 7.

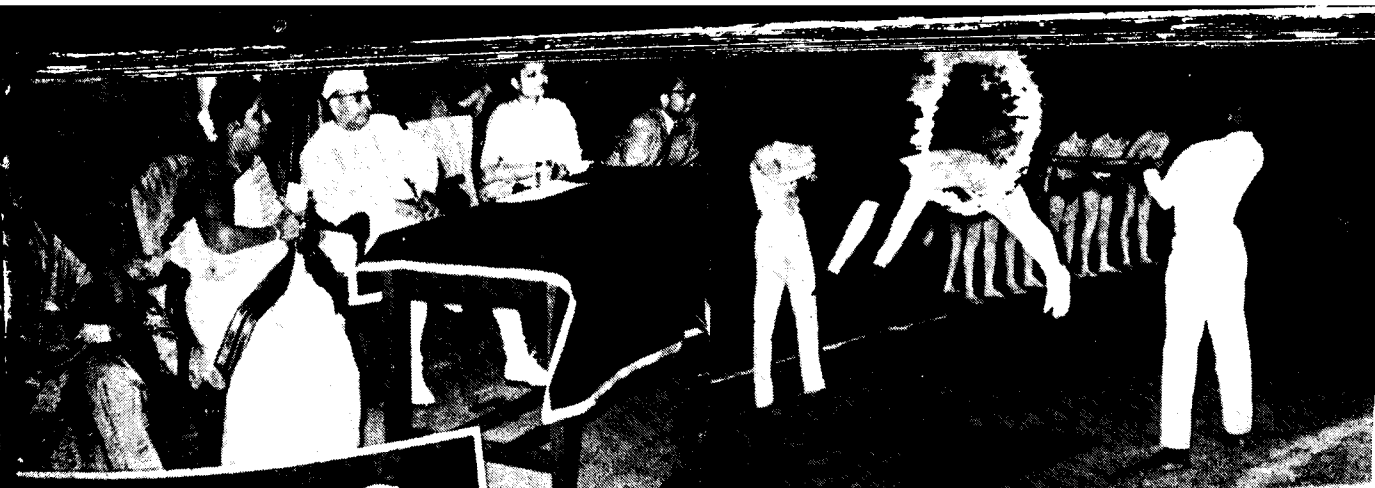
The main theme of the book under review is the exploration of the multifaceted nature of the Extension Projects. Ways and means to eliminate the discord and waste and of the process of harmonisation for the fulfilment of rural renaissance are suggested in the book. The very survey of the chorus-performance of the thousands of Prometheuses liberating themselves from the dead-weight of cultural backwardness, poverty and ignorance and leaping into the realm of freedom and enlightenment provides a grand spectacle and thrilling experience. All those to whom nothing human is alien can be proud of this programme.

What is the scope of Extension work and to what extent will it enable us to overcome the evils of the past and carry forward the cherished ideals of a happy, contented life? Can Extension by itself change the inert, poverty-stricken, illiterate face of the villages

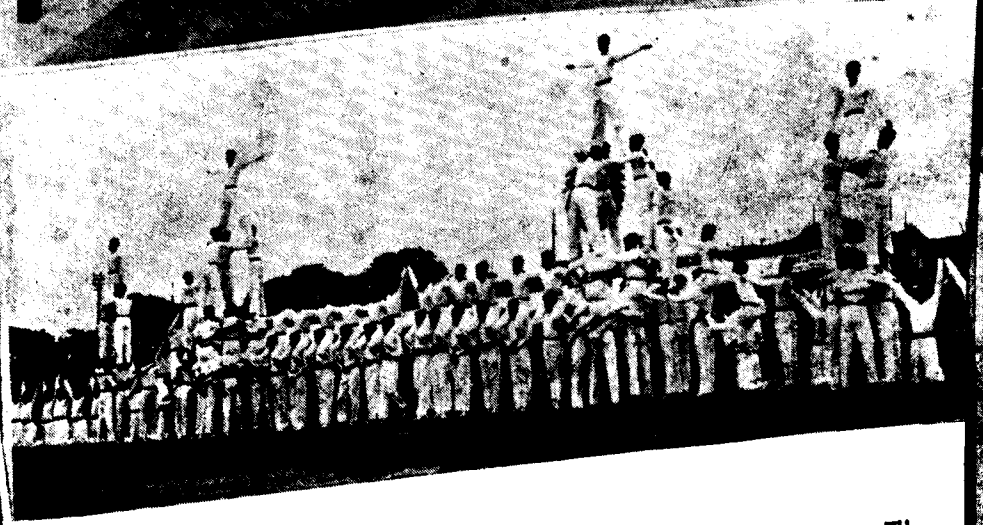
and quicken the pace of progress and plenty? What machinery, what items of work and what type of workers are needed for the speedy execution of the Extension Projects? Who are the men to be on the spot and where can they be found? These are some of the important questions discussed in this book and the discussion is free from the usual academic dryness and unnecessarily put-up dispassionatedness. It is futile to pretend to be dispassionate and thoroughly objective towards a problem when it specifically deals with the campaign to promote the much-belated rural welfare. What is wanted, above all, is the sense of history and patriotism without partisan bias.

"The book is based on the experience gained by the members of the Allahabad Extension Project in four hundred villages in Uttar Pradesh" says the blurb, "The spearhead of the movement is the Gram Sevak or Goan Sathi,

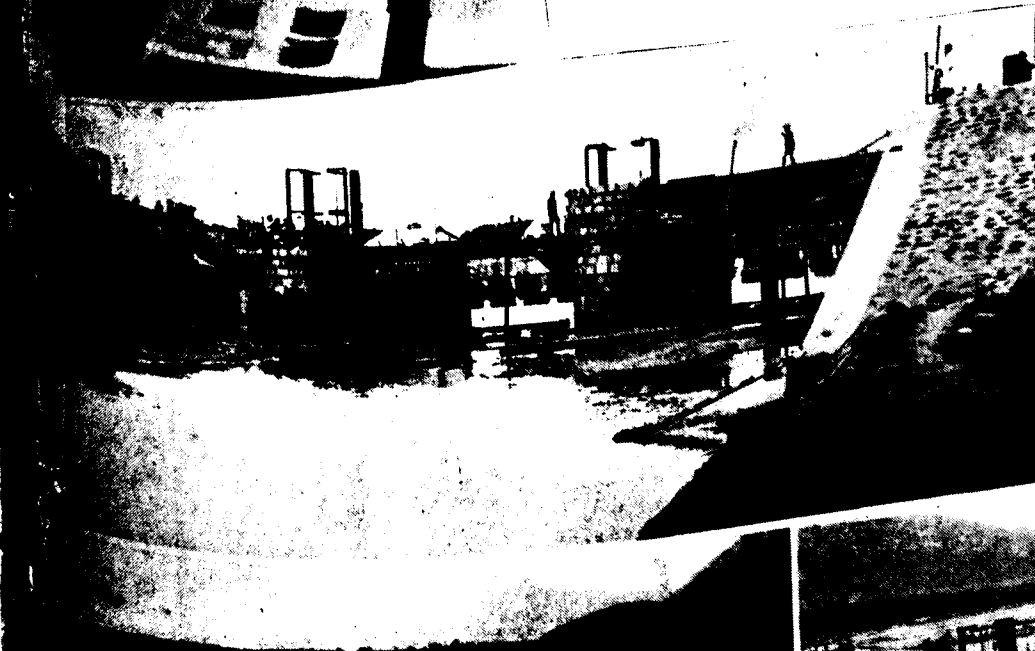
the village companion, and it is mainly with his important mission that the book deals." One who goes through the pages of "Experiment in Extension" will feel happy over the fact that the blurb does not belie the contents. Quite appropriately, the book is dedicated to the man in the field and his family. It is these people who form the picture in the frame of the reconstruction work. Almost all the important aspects of Extension Projects are covered in the eight chapters judiciously arranged and drawn, at the same time, dealing with the necessary details. A reasonable amount of romanticism is always closely associated with every revolution, silent, slow or terrifically turbulent since the guiding principle that adds colour, content and grandeur to any human endeavour is that man makes himself. This vision of man becoming the active agent of his own destiny is romantic and as such any book dealing with it must be a careful blending of romanticism and realism. This book on the Extension Projects, if romantic in certain aspects, only fulfils this need. Those interested in Extension work, in one way or the other, will find it really useful. As the compilers admit in the introduction "It is not perfect, but it is a beginning"—And quite a good beginning at that, one must add.



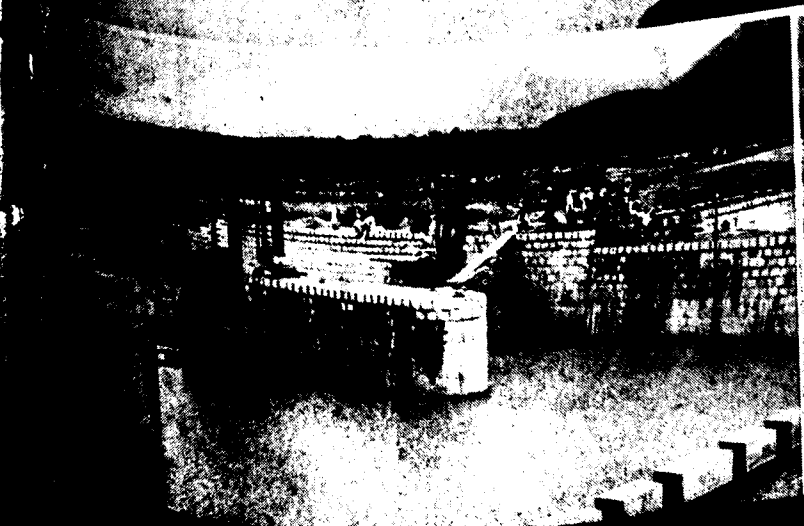
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POLICE TATTOO: The Governor and other distinguished visitors watching the interesting items at the Police Sports and Tattoo in the City.



ARANIAR PROJECT: Work on this irrigation project in Chingleput district is fast progressing. Photos from different angles show the dam under construction.



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MADRAS

Information





MADRAS CELEBRATES
GANDHI JAYANTHI—



—BY PUSHING
KHADI SALES

Another addition to the chain of Khadi
sales emporia in the City was made when
this Triplicane depot was opened.



Madras Information



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"WE SEEK TO SERVE AND NOT TO COMPETE"

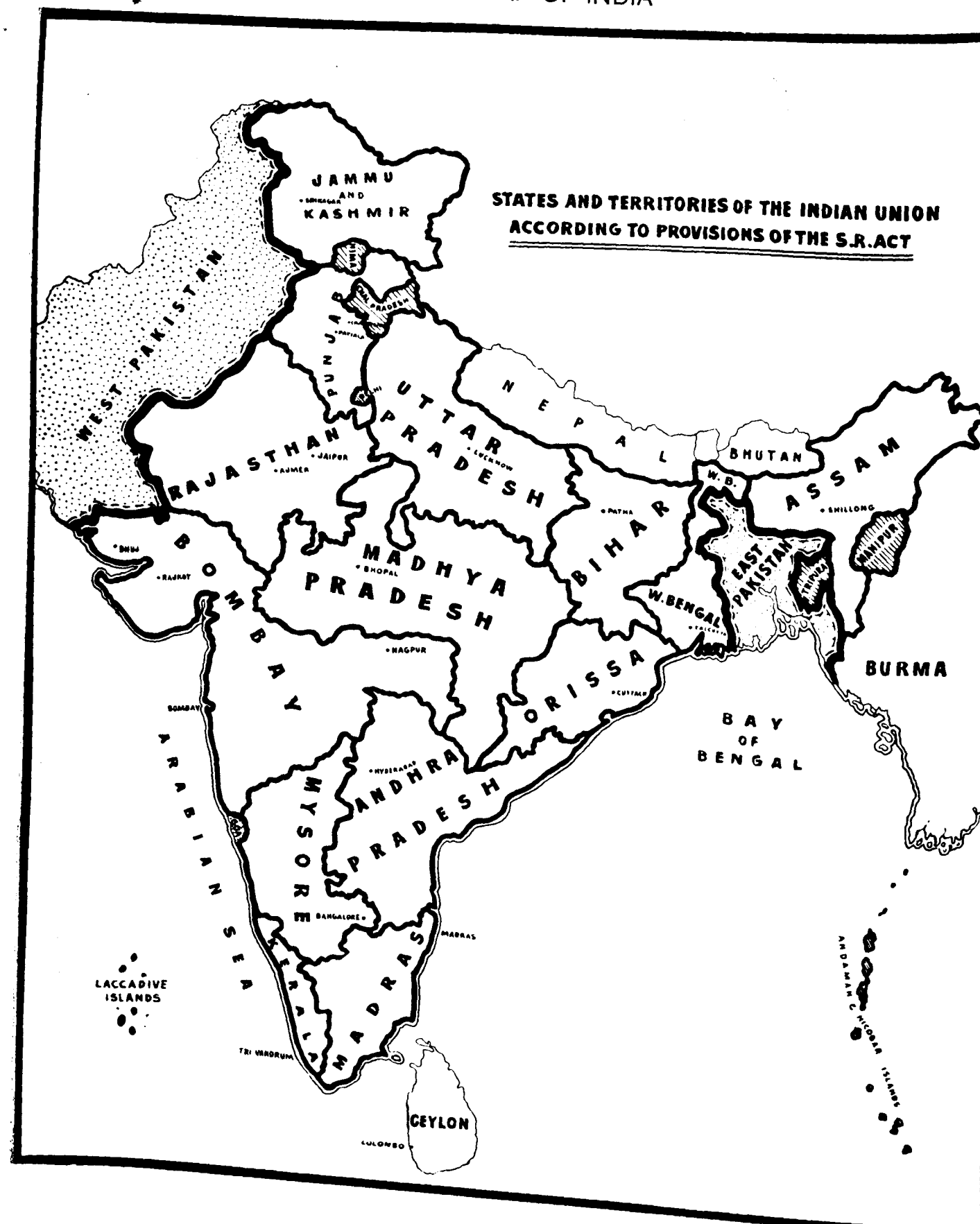
November 1958

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Cover Picture: Poised for the Pick.

NEW MAP OF INDIA



Re-organization of States Chief Minister's Message

The re-organization of States is an important land-mark in the history of independent India. It has been proved once again that an abiding and just solution of the most knotty problems can be arrived at only by the democratic way. Let us put behind us the passions and suspicions that breed on all religious or linguistic differences. In the days that are ahead of us we will be called upon to show even greater courage and faith.

Madras, as a result of the changes that have happened during the last few years, has become progressively smaller in area. But I have no doubt that its contribution to the progress of the Nation will be as great as ever.

October 31, 1956.

k kam
Chief Minister.

Gateway to Prosperity in Arcot districts—Sathanur Project

The river "Ponnar" rises in the south-eastern slopes of the Channakesava hills of Mysore State, where it is known as the Dakshina Pinakini. After a run of fifty-three miles in that State, the river enters Madras State and flows through the Salem district for a length of 110 miles. Further, the river courses through North Arcot district for 21 miles and the remaining 76 miles length of the river, till its infall into the sea lies in South Arcot district. The river has many small tributaries.

Existing Irrigation

The river drains 5,000 square miles of area fed by both the south-west and north-east monsoons, the upper belt getting more rain from the first and the lower from the second. Owing to the irregular distribution of rainfall, the river flows are typically flashy. Severe floods had occurred in 1903, 1913 and 1943. The unsteady river flow has been so far made available for irrigation largely through open head channel taking off from anicuts at various points along its entire course. The four important anicuts are (1) Aliyalam in Salem district (218 acres), (2) Nedungal in Salem district (4,500 acres), (3) Tirukkoilur in South Arcot district (22,012 acres), and (4) Ellis Choultry in South Arcot district (13,000 acres).

Of the three districts in Madras State, through which the Ponnar flows, the North Arcot district is the most backward. Even in this district, the Chengam and the Tiruvannamalai taluks suffer most from water scarcity, the rest of the district being slightly better off because of the irrigation schemes like anicuts across the Palar and the Cheyyar rivers. Lower down in South Arcot district, irrigation facilities are better, though the existing wet ayacut has to be stabilised, and vast areas of cultivable land are available for extension of irrigation. A detailed study of the annual river flows at Nedungal anicut in Salem district and Tirukkoilur anicut in South Arcot district, has revealed the availability of water for storage in the

The Main Canal of the Sathanur Project which is to irrigate the semiarid lands of South and North Arcot districts was opened on Oct. 30, 1956, within 2 years of starting work on the Project. By a judicious combination of men and material resources, the Project is expected to be completed a year ahead of schedule, in 1957.

proposed Sathanur reservoir without affecting existing irrigation interests.

The project was mooted as long back as 1904. Several investigations were undertaken and the reservoir scheme was modified from time to time, but lack of reliable data on river flows, considerations of financial return, priority for more attractive schemes elsewhere in the State, etc., caused the postponement of the project.

The post-war Grow More Food drive gave a fillip to the construction of the protective schemes like Sathanur Reservoir Project. Detailed investigations were taken up in 1946. The scheme was finalised in 1949 and the Government sanctioned the project for immediate execution.

The project comprises a 2,583-foot dam rising to a maximum height of 147 feet, a 400-foot anicut rising to a maximum of 20 feet and a 22-mile canal taking off from left side of the anicut for ensuring irrigation to 20,000 acres in the Madras State.

Location

The Sathanur Dam will be located in a narrow gap separating the Chinnapudi hills in the east from a corresponding low range of hills in the west in the Tiruvannamalai taluk. This gorge is about four miles south-west of the Sathanur village. The town of Tiruvannamalai, made famous by Ramana Maharshi, lies hardly 20 miles away. The dam site has many favourable features such as good rock at river bed for foundation, facilities for surplus right over the proper and over a saddle a little removed to the right, easy accessibility, availability of necessary construction materials within short

leads and above, all, the reservoir would cover only scrub jungle and reserve forest, entailing no submersion of valuable lands and consequent hardship to land owners.

The margins and adjacent country below the dam are rocky and rugged for a considerable distance and a direct off-take from the Reservoir for the Irrigation canal is not, therefore, feasible—it would involve tunnelling, deep cuttings and side walling for three to four miles. Water from the Sathanur reservoir will, therefore, be let down into the river and easily picked up lower down by anicut for diversion into the Main Canal through a head sluice. From three sites of the anicut the lowest and best has been chosen. It is about a mile upstream of the Olagalapady Causeway on the Tiruvannamalai-Thunipadi Road and about 300 feet below the Koronogotti hills. There is sheet rock extending over the full width of the river here and projecting high pieces of rock on either side of the river margin. In this reach, the river is straight and conditions for locating the off-take are also favourable. The head sluice of the main canal is planned for the left side, about 300 feet away from the deep river course.

The total length of the Dam is to be 2,583 feet, comprising 1,400 feet of masonry dam and 1,183 feet of earth dam. The masonry dam contains a spillway section of 432 feet in length made up of nine spans 40 feet each and eight piers 9 feet thick in the middle, a non-spillway section of 290 feet on the left flank and 678 feet on the right flank. In addition to these, there will be a saddle with dykes on either side in the right flank of the reservoir for a length of 1,760 feet. In left flank of the non-overflow section there will be a river sluice of 5 vents, each 5 feet wide and 6 feet high. The dam will rise 135 feet above the deepest bed level, and 147 feet above the deepest foundation. 7,000,000 cubic feet masonry will go into the structure. The height of the shutters over the spillway will be 20 feet.

The Earth Dam.

The maximum height of the earth dam above the average ground level will be 55 feet. Filter work will be done on the rear slope to avoid erosion. The total volume of earthwork involved will be 6,000,000 cubic feet. Judicious combination of machinery and men is employed in the construction of the earth dam to secure the maximum economy and to provide employment for local people.

The 5 faced anicut, called the Ogee type, will be founded on good sheet rock in the river bed. It will run for 400 feet across the river and rise 20 feet above the deepest foundation. A 30-foot chunk, the bye-wash, on the extreme right flank will block up a narrow valley between two hillocks. The body of the anicut will be made up of random rubble masonry with a reinforced concrete capping for the crest. The real face will be finished in chisel-dressed stone work.

Six sluices are provided in the anicut to pass water for irrigation lower down and to serve as scouring sluices for passing off silt, accumulating behind the anicut.

Canal System.

The head sluice on the left of the anicut consists of 3 vents of 9 feet width and 5.6 feet height each, provided with screw gearing shutters. The vents will draw 400 cusecs water to feed the canal.

The distribution system comprises a 22-mile Main Canal and about 50 miles

of distributories, including several cross-drainage works, two major aqueducts and bridges.

One of the important features of the canal system is that it runs through rugged and rocky country in the head reach and cuts through soil of doubtful impermeability. To obviate excessive losses through seepage, the canal up to its 8th mile would be lined with concrete. By such lining about 20 cusecs of water, enough to bring in an additional 1,000 acres under irrigation by the project are expected to be conserved.

Construction progress.

Head Works.—Since the laying of the foundation for the project in October 1954 by the State Chief Minister, Sri K. Kamaraj, rapid progress has been achieved. A modern colony to house the officers, staff and labourers engaged in the project was built up within the first year. All amenities like protected water-supply, electricity and sanitary facilities have also been provided. A project house for visitors, a hospital, an elementary school, a post office and a cafeteria have been constructed.

The bridge below the dam has been constructed to convey materials required for the right flank, even during floods. Earthwork excavation and rock blasting for the foundations of masonry dam have been completed, except for 170 feet in the left flank, and masonry work is in full swing. Erection of sluice liners has also been commenced so that water could be let down for

irrigation as early as possible. Excavation of the cut-off trench in the earth dam portion has also been completed. This trench is an essential provision for collection and draining off the water that inevitably seeps through the earth dam from the reservoir, as otherwise it would spell disaster for the dam.

The year 1956-57 will be the peak year of construction and most of the project is expected to be completed by December 1957. Water is expected to be let out for irrigation in next October.

Pick-up Anicut.—The work on the weir consisting of 2 lakhs cubic feet of concrete and stone masonry was started in February this year and completed on May 12. The work on the head sluice is completed.

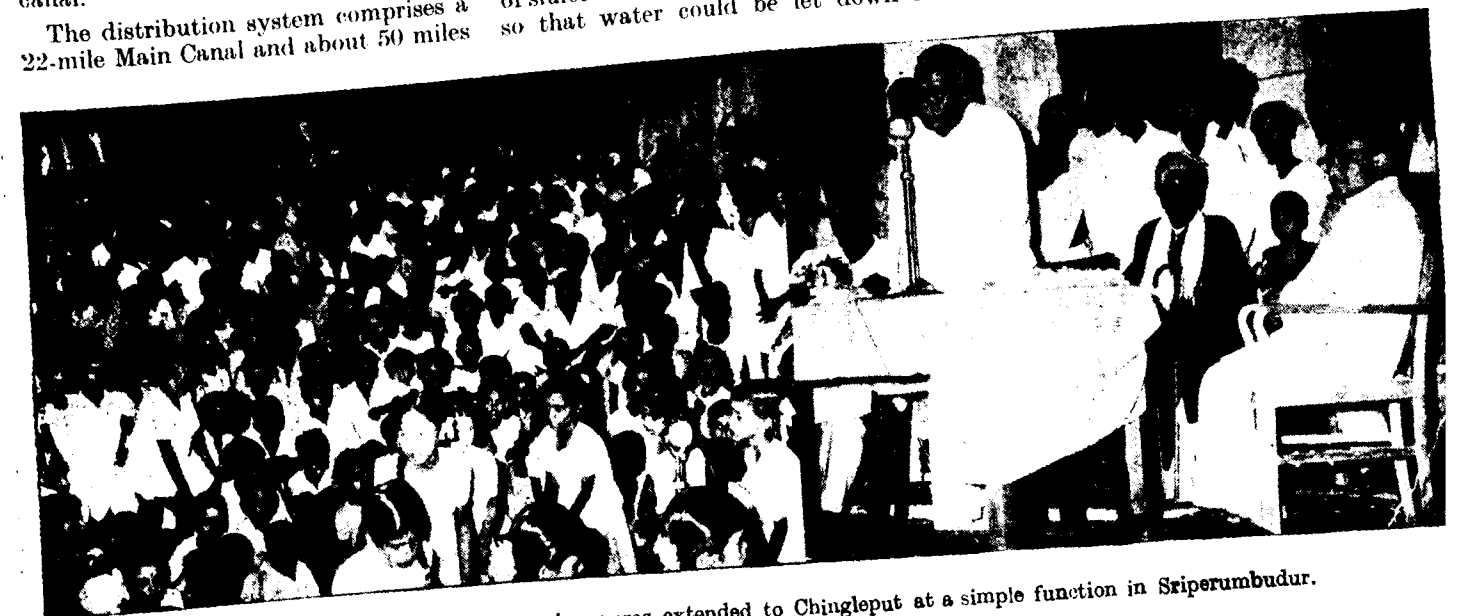
Canals.

The Main Canal work has been completed for 8 miles from the head, except for short lengths of deep cuts in the first and fourth mile. Of this reach 3 miles have already been concreted and lined. Beyond the eighth mile and lined. Beyond the eighth mile 70 per cent of the work has been done.

The current work progress promises irrigation supplies for the coming season itself for a sizeable area—that is within 18 months of the commencement of the Project.

All items of work in the Project are being executed departmentally with the help of job workers with a view to economising cost. The outstanding and unique feature about the execution

(Continued on page 31)



The Integrated Field Publicity Scheme was extended to Chingleput at a simple function in Sriperumbudur.



Sri M. Bhaktavatsalam inaugurating the State Labour Advisory Board.

On the Road to Integrated Industrial Democracy

The Progress of Labour Welfare Measures in Madras State

Address by the Chairman, Sri M. Bhaktavatsalam at the Sixth Meeting of the State Labour Advisory Board

With the advent of independence labour welfare has become the most important and essential part of social services and it has been given its due place in the directive principles of the Constitution. The need for a harmonious relationship between Capital and Labour is now being fully realised by the State, the workers and the employers.

In the labour policy adopted for the period of the First Five-Year Plan, greater emphasis was placed on the effective administration of existing labour laws. For the settlement of disputes joint consultation at different levels was proposed. Improvement in the real wages of the working class, implementation of social security schemes and improvement in working conditions in factories, plantations and mines were envisaged. The Government of India have since laid down

the labour policy and programme to be adopted in the Second Five-Year Plan. In its essentials the labour policy and the approach to industrial relations outlined in the First Five-Year Plan will also hold good for the period of the second plan. The objectives of the second plan are the strengthening of the trade union movement, granting them representative character, promotion of leadership from within and the training of workers in trade union philosophy and methods, settlement of disputes through mutual negotiations, conciliation and voluntary arbitration, effective implementation and enforcement of awards, increased association of labour with management, prevention of tendencies to violence and indiscipline, a progressive wage policy with a view to accelerating progress towards fair wages, extension of the Provident Fund and

Employees' State Insurance Schemes and enhancement of the rate of contribution to Provident Fund and regulation of working conditions in the construction and transport services. It has also been decided that schemes of rationalisation should be preceded by agreements between the parties and that the possibilities of providing additional employment to agricultural workers and the problems peculiar to women workers should receive adequate attention.

In this connection I may mention some important changes in Labour Legislation that have taken place since the last meeting of the Board. The Industrial Disputes (Amendment and Miscellaneous Provisions) Bill, 1955 to which I referred at the last meeting of the Board has since been passed into Law. This new Act has amended the definition of 'workman'

in the Industrial Disputes Act so as to include supervisory personnel whose emoluments do not exceed Rs. 500 per month. It also provides for expansion of the adjudication machinery by a three-tier system, viz., Labour Courts, Industrial Tribunals and National Tribunals. The Industrial Disputes (Appellate Tribunal) Act of 1950 has been repealed and there is no provision now for appeal against the awards of Industrial Tribunals. It is therefore proposed to establish the Labour Courts and Tribunals with personnel of appropriate status and qualifications. Reference to the National Tribunals will be made by the Central Government and they will cover disputes which involve questions of national importance or which are of such a nature that establishments situated in more than one State are likely to be interested in or affected by the disputes.

Significant new provisions.

Another important provision introduced by the Act is that enabling voluntary reference of disputes to arbitration by the parties themselves by written agreement and for the enforcement of the agreements between employers and the workers reached other than in the course of conciliation. One other provision which, I consider, requires special mention is that relating to notice of change. No employer who proposes to effect any change in the conditions of service applicable to workers in respect of certain specified matters shall effect such a change without giving to the workmen concerned a notice in the prescribed manner. Certain amendments to the Industrial Employment (Standing Orders) Act have also been made in this Act. The Certifying Officer and the Appellate Authority have been empowered to take into account the fairness or reasonableness of the Standing Orders before certifying them. Besides the employers, the workmen also may now apply for the modification of standing orders.

Certain provisions of this important enactment have already been brought into force. The question of fixing suitable dates for bringing the other provisions also into force is under the active consideration of the Government of India. The question of suitably amending the Madras Industrial Disputes Rules consequent on the

changes brought about in the Amendment Act is engaging the attention of the State Government.

Better deal for working journalists.

The Working Journalists (Conditions of Service and Miscellaneous Provisions) Act, 1955, has not only made the provisions of the Industrial Disputes Act applicable to working journalists but also provided for certain special matters such as payment of gratuity to working journalists, regulation of hours of work and leave, fixation of wages and the constitution of a Wage Board for the purpose. The officers of the Labour Department have been appointed as Conciliation officers under the Act for the areas within their respective jurisdiction. The provisions of the Industrial Employment (Standing Orders) Act 1946 now apply to every newspaper establishment wherein 20 or more newspaper employees are employed. Newspaper establishments which are already having standing orders have been asked to submit draft amendments to their existing standing orders so as to make the orders applicable to newspaper employees, and other newspaper establishments employing 20 or more workers have been asked to submit draft standing orders for certification. Similarly the Employees' Provident Fund Act has also been extended to cover newspaper establishments employing 20 or more persons.

The Government of India have constituted a Wage Board for fixing rates of wages in respect of Working journalists with a retired judge of the High Court of Bombay as its Chairman and with three representatives of employers and an equal number of representatives of working journalists.

The conciliation machinery set up under the Industrial Disputes Act has been striving hard to bring about settlements of industrial disputes and promote industrial peace. During the period from January 1956 to August 1956 as many as 202 industrial disputes were settled by conciliation and 126 disputes were referred for adjudication. In addition to the industrial disputes, the Labour Officers investigated into a very large number of individual complaints (6,140 cases) relating to dismissals and suspensions, wages, bonus, etc. Cases of retrenchment were reported in 18 establishments involving 426 workers during the eight

months. In most of the cases retrenchment compensation has been paid to the workers. In cases where retrenchment compensation was not readily paid, the workers were advised to put in claim petitions under the provisions of the Industrial Disputes Act.

Important Conciliations.

Two important settlements brought about by conciliation which may be specially mentioned here are those relating to the industrial disputes in the T. I. Cycles Limited, Madras, and in the Textile Mills in the Coimbatore District. As you are aware the workers of the T. I. Cycles struck work in January 1956. After protracted and long discussions the management and the representatives of the workers came to a settlement through conciliation. A majority of the old workmen have been taken back into service. The other demands of the workers relating to wages, bonus, dearness allowance, etc., were also settled to the satisfaction of both the parties.

In the case of the Textile Mills in Coimbatore there was a long-standing dispute between the workmen and the managements regarding occupational nomenclature, work-loads, gradations, basic wages, differentiation in wages, production bonus, etc. A settlement was brought about during the last month by conciliation on all the outstanding matters except on the question of festival holidays and payment of increased wages with retrospective effect. The agreement is to be in force for a period of five years from 1st October 1956. Both the parties have also agreed that the question of bonus for the year 1955 should be referred for arbitration as was done in previous years. The Government have since constituted an Arbitration Board with the District Judge of Coimbatore as Chairman to decide this issue. It has since been brought to the notice of the Government that there is some opposition from workers of certain mills in accepting the higher work loads provided in the Agreement. The matter is receiving attention.

In addition to these important long-term settlements, two major disputes, one relating to the Madura Mills Limited, and the other relating to the Buckingham and Carnatic Mills Limited, Madras, were also amicably

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settled by conciliation during the period under review.

Common Law for Motor Transport Workers.

The Standing Labour Committee at its session held in April 1956 recommended that there should be a Central Legislation to regulate the working conditions of Motor Transport workers and that draft proposals should be drawn up for consideration by a special committee to be constituted for the purpose. The Government of India have accordingly formulated tentative proposals with regard to the provisions to be included in the proposed legislation on the basis of the I.L.O. convention and suggestions received by them. These tentative proposals include provisions for regulating working hours, rest interval, spread-over, over-time, weekly-rest, welfare facilities, leave with wages and holidays, medical facilities, night work, retirement benefits and compensation for employment injuries. They will be first considered by a special committee as recommended by the Standing Labour Committee.

As provided for in Section 3 of the Minimum Wages Act, minimum rates of wages already fixed will have to be reviewed and refixed within a period of 5 years from the date on which the original rates of wages came into force. The minimum rates of wages were accordingly revised in the case of employments in (1) rice, flour and dhall mills, (2) oil mills and (3) tanneries and leather manufactories. Special Advisory Committees were constituted by the Government for the purpose of revision of minimum wages fixed for these employments. The committees for rice, flour and dhall mills and oil mills met twice and sent their recommendations to the Government. The committee for tanneries and leather manufactories held three meetings. Some of the members of this committee also visited a few important factories in Madras and North Arcot Districts. Two special meetings of the Minimum Wages State Advisory Board were also specially convened for considering the recommendations of the above advisory committees. The constitution of such committees to advise the Government in the matter of revision of minimum rates of wages for the other scheduled employments is under the consideration of the Government.

Social Security measures provided under the Employees State Insurance

Fund Act are being progressively implemented. The Employees Provident Fund Act had been till recently benefiting the factory employees in six major industries. The Central Government have since extended the benefits of the Act so as to make them applicable to 17 other industries of which Matches, Sugar, Tea, Printing, Stoneware Pipes, Tiles, Heavy and Fine Chemicals, Non-edible vegetable and Animal fats are important in this State. The Employees State Insurance Scheme which provides for sickness, maternity and employment injury benefits are now in force in Coimbatore and Madras City and their suburbs. It has been decided that the Scheme should be brought into force in Madurai, Tuticorin and Ambasamudram. Preparatory work is going on in these places and it is hoped that the scheme will be inaugurated by the end of this month. The Government have also sanctioned the starting of State Insurance Dispensaries in these places.

Five inspectors have been appointed specially to enforce the provisions of the Plantation Labour Act and Rules in our State with their headquarters at Ootacamund, Coonoor, Pollachi, Yercaud and Kodaikanal. With a view to augmenting the existing staff the question of notifying some of the other officers of the Labour Department as Plantation Inspectors is under consideration. The Act contains provisions regarding health, welfare and other conditions of work of the plantation workers. I am sure that a strict enforcement of the provisions of the Act will bring about an improvement in the working conditions of these workers.

Progress of Industrial Housing.

As you are aware, both the Central and the State Governments are specially interested in Industrial Housing. The Sembium and Erukanchery colonies the construction of which the State Government have undertaken with assistance from the Centre have made substantial progress. 342 houses at Sembium and 300 houses in Erukanchery have been completely roofed and all the 936 tenements in both the colonies are expected to be completed before the end of March 1957. A provision of Rs. 92.5 lakhs has been made for industrial housing during the Second Five-Year Plan period. It has been decided that out of this provision a sum of Rs. 25 lakhs should be set apart for industrial housing

co-operatives and that the balance of Rs. 67.5 lakhs should be utilised for schemes to be undertaken by the Government for the construction of tenements for private industrial workers. I am glad to state that many of the employers have come forward to donate lands for the construction of houses for their workers and proposals for finalising a programme for the construction of about 2,500 houses are under active consideration. In the current year it is proposed to start the construction of 500 houses under the scheme.

The Government of India have also provided a sum of Rs. 22 lakhs for housing plantation labour during the period of the Second Five-Year Plan. As you are aware it is obligatory for every employer in plantations to provide and maintain for every worker necessary housing accommodation and the Madras Plantations Labour Rules require the employers to build houses for accommodating at least 8 per cent of their resident workers every year. The provision made in the second five-year plan is to assist such of the employers as are not in a position to construct houses with their own resources in complying with the above statutory requirement. The Inspectors of Plantations and the Association of Planters have been advised to give wide publicity to the scheme. The constitution of an advisory board for dealing with the matters relating to the scheme is being considered.

On the successful working of the Labour Laws depends the development of our industries and improvement in production. Exchange of views and experiences of the various officers of the Labour and Factories Department would be useful in bettering the standard of administration. For this purpose the Government have been sanctioning the holding of departmental conferences. A conference of the officers of the Labour and Factories Department was held in May 1956. A number of important subjects relating to the administration of the Factories Act, Madras Shops and Establishments Act, the Industrial Disputes and other allied Labour Acts were discussed at that meeting.

I informed you at the last meeting that a special officer had been appointed to enquire into the conditions of workers in the beedi industry. The special

(Continued on page 30)

National Plan and Health Programme

The doctors in India have to face a multiplicity of problems which affect their work. They have to deal with patients, most of whom cannot afford to buy present day drugs, or to feed themselves properly. Poverty is the major factor in disease. Lack of general and health education contributes to make a bad situation worse. The permanence of benefit derived from treatment depends largely upon the nature of conditions in which the patient lives and works. To be healthy people require good living and working conditions and income sufficient to provide the necessities of life. The World Health Assembly's programme for the future rightly seeks "to control disease at the source and not rely, as in the past, on therapy, to promote health by improving living conditions and giving children a chance to grow up healthy. . . . Large scale efforts towards improving environmental hygiene, providing better housing, raising

nutritional standards and spreading education can proceed only at a slow pace on account of the limited financial resources at our disposal. The main objective of our National Plan of Development is to increase the National income and raise the living standards

SRI A. B. SHETTY.

of the people. In the Second Five Year Plan, health services get an allotment of Rs. 274 crores as against Rs. 140 crores in the First Plan. But still this amount forms only 5.7 per cent of the total provision of Rs. 4,800 crores. The larger emphasis is on Industrialization and Transport and Communication which together get Rs. 2,275 crores in order to prepare the ground for more rapid economic advance in the

Plan periods to come. Improvement in health will automatically follow improvement in the economical, social and educational status of the people.

Hospitals, clinics and domiciliary care.

The provision of a reasonable standard of medical service to the people requires adequate hospital facilities and a sufficient number of medical and auxiliary personnel. The Second Five-Year Plan provides for the expansion of the existing medical institutions and the opening of new institutions. Medical services based on clinics and domiciliary care have now been made more effective as a result of recent advances in chemotherapy and preventive measures. So instead of concentrating on increase of hospital accommodation, treatment at clinics and at the homes of patients can be given more encouragement hereafter.

Primary Health Units.

One important general trend in modern medicine is to switch on emphasis from curative to preventive medicine. Mere individual curative care will not improve general health standards. A more community-minded and preventive approach is required to meet the needs of countries like ours with low standards of nutrition and sanitation. We have to train a new type of doctor who can look after the medical needs and public health problems of the rural areas. In consonance with this, a start has already been made by opening primary health centres to provide integrated preventive and curative service to the rural population. During the Second Plan period it is proposed to open such centres in as many Community Development Blocks as possible. Madras State will have 140 centres during 1956-61.

Medical Education and Training.

Provision has been made in the National Plan for the expansion of the existing medical colleges and attached hospitals, the establishment of 5 or 6



Ceremonial receptions were the order of the day during the Chief Minister's tour of Ramanathapuram District.

new colleges and the creation of facilities for post-graduate training and research. Madras may in all probability start a new medical college at Coimbatore. Departments of Preventive and Social Medicine are being set up in our medical colleges with a view to adjust the pattern of medical training to present-day ideas and the special needs of the country. There is a great dearth of Medical and Health Officers of proper qualification and experience to meet the growing needs of the various health programmes proposed under the Plan. The Central Council of Health has, therefore, recommended the extension of the age of retirement of competent officers up to 60 years. One serious impediment to the starting of new medical colleges is the shortage of teaching personnel in non-clinical subjects. Enhanced scales of pay will have to be given to attract suitable personnel for this category of service. The Central Government will give 50 per cent of the increased expenditure which State Governments may have to bear for this purpose. A full complement of auxiliary personnel is essential for the efficient working of medical and health services. The Plan has made provision for training increased numbers of nurses, midwives, pharmacists, technicians, etc.

Basic Sanitary Services.

The great need in our country is the provision of basic sanitary services. Adequate and safe water-supplies and efficient sewage disposal would result in the diminution of water-borne and fly or insect-borne diseases, which are rampant here. The Madras State is having the benefit of the National Water Supply and Sanitation Scheme formulated in 1954. The Scheme is now being implemented in selected villages subject to frequent attacks of cholera in six districts of this State. Increased allotment has been made in the Second Plan to urban water-supply and sanitation and rural water-supply schemes. Water-seal squatting slabs for latrines will be manufactured and supplied to houseowners in the districts of this State at concessional rates or free of cost in deserving cases. In view of the need for staff with special training in public health matters, steps have been taken for expansion of training facilities for public health engineers, sanitary inspectors, etc.

Diet Therapy.

The newer knowledge of nutrition constitutes one of the significant advances in preventive medicine. Two of the outstanding nutritional deficiency problems are protein malnutrition and vitamin A deficiency. Infants in the post-weaning period and young children of the poorer classes are the chief sufferers. Protein malnutrition in its serious form may cause life-long damage to the health of children. Skim milk is a good remedy but it has to be imported from abroad. The Nutrition Research Laboratories at Coonoor have made a preparation out of roasted Bengalgram powder, jaggery and plantain which is cheap and nearly as good as skim milk as a protein supplement to the diet of children. Vitamin A deficiency has long been known. It causes, as you know, night blindness in poor children and it often leads on to total loss of eye sight. This can be prevented by means of cheap vegetable foods rich in vitamin A, if animal sources of this vitamin are beyond the means of the children affected by this deficiency disease. Children who are treated at hospitals for such nutritional deficiencies may improve for a time but relapse often occurs when they return home. Preventive approach is better than clinical approach in all such cases. The doctor must study the principles underlying various therapeutic diets and make use of diet therapy in such diseases as diabetes, liver trouble, anaemia and toxæmia in pregnancy and other conditions such as obesity. The Public Health Department in our State has given an important place to nutrition work in its programme. The Second Plan has a scheme for the employment of dietitians and the establishment of special diet kitchens in the teaching hospitals of the country.

Maternal and Child Health.

High priority is given to maternal and child health care in the programme of health development. Additional maternal and child-health centres are being set up in rural areas and they are being integrated with primary health units. The target for Madras State is 600 centres. Research programmes have been instituted by the I.C.M.R. in regard to maternal and child-health problems. Pediatric training is now being given great importance and provision has been made under the Second Plan for establishing centres for this purpose.

School Health Service.

School Health Services and school feeding schemes have contributed in substantial measure to the well-being of the younger generation in many western countries. The Madras Second Plan provides for the medical inspection of 1½ lakhs of school children as a first step in this much needed service.

Control of communicable diseases.

National programmes for control of malaria, filariasis, tuberculosis, leprosy and venereal diseases have been undertaken with the aid of W.H.O. and other foreign agencies. The success so far attained in the control of malaria is an outstanding achievement. We have to eradicate malaria before the mosquitoes develop resistance to insecticides. Filariasis control work has been inaugurated at Mangalore and Kozhikode in the first week of this month. The campaign started against yaws in the affected villages in Avinashi taluk, Coimbatore district, is giving remarkably good results. Sulphone therapy has introduced a new era of leprosy control. Pilot projects have been started for control of leprosy by mass sulphone treatment of patients, by measures for prevention of infection to children and by health education of the people in certain endemic areas. The Belgian Leprosy Unit is doing remarkably good work in certain villages of Chingleput and the neighbouring areas. The effectiveness of the newer antibiotics in treating tuberculosis patients in their homes is being taken up for investigation in Madras City with the co-operation of the British Medical Research Council.

B.C.G. Campaign.

Last month a short notice question came before the Legislative Council asking whether Government will revise its B.C.G. policy in view of Dr. Palmer's report, some parts of which were recently given publicity in the Madras daily papers. What Dr. Palmer has said refers to his own country, the United States of America. Prof. Wallgren quoted by Dr. Palmer writes about the use of B.C.G. in his own country, Sweden. The U.S.A. and Sweden are countries which have advanced a long way towards complete uprooting of tuberculosis and there is decreasing need for B.C.G. vaccination in those

places. The problem of tuberculosis in India is different from that of U.S.A. and Sweden. The chances of new infection are very limited in U.S.A. and Sweden. In India the infection rate is high. If we adopt the policy of not vaccinating the uninfected children in this country and allow them to be naturally infected with virulent tubercle bacilli, we shall be exposing them to the risk of developing tuberculosis. Government's policy in regard to B.C.G. vaccination is justified by the very favourable report of the British Medical Research Council's Committee published in February this year. This Committee's investigation has shown the substantial value of B.C.G. in the reduction of tuberculosis among the B.C.G. vaccinated school children. The Ministry of Health in U.K. had even before the publication of this report introduced a scheme for B.C.G. vaccination of 14 years old children who are found tuberculin negative.

B.C.G. as a prophylactic measure has been given emphasis in this country's programme of tuberculosis control. The Second Plan of the Government of India proposes to complete the first round of the campaign and cover the entire susceptible population below 25 years of age.

Mental Health.

Hardly any research has been made in this country in the sphere of mental health. There is a great dearth of doctors trained in psychiatry and of nurses who can deal with mental patients. The Upgraded Institute of Mental Health at Bangalore is meant to meet these requirements. In spite of the advances made in psychological medicine in the West, the main types of mental diseases continue to be unsolved problems in medicine. Psychotherapy as well as physical treatment including insulin coma treatment and electric convulsion therapy fail to give satisfactory results. Leucotomy and allied brain operations may be of some use except to alleviate psychoses which cannot otherwise be tackled but they have a damaging effect on the patients' personality.

Establishment of clinical and public health laboratories.

Medical progress in recent years is due to the development of diagnosis and the discovery of potent drugs. Correct diagnosis is necessary for treatment by the specific remedies which are



A Frankenstein in foliage—met with during Chief Minister's tour of Ramanathapuram district.

available today for many diseases. Early and accurate diagnosis can also cut off dangerous developments by means of timely and appropriate treatment. Recently devised methods of detecting contamination of water and food can be of help to prevent or check the outbreak of gastro-intestinal diseases. The establishment of clinical and public health laboratories for which some provision has been made in the Second Plan of the Madras State will be of great assistance to physicians and health authorities in dealing with illness in individuals or in saving the community from epidemics.

Drugs and Medical requisites.

With the advent of newer therapeutic agents, the whole picture of medical practice has changed. The antibiotics, chemotherapeutic drugs, vitamins and hormones, which constitute the bulk of present day requirements, have to be mostly imported from abroad at high cost. The Central Government have, therefore, taken steps to establish as a State industry the manufacture of such medical requisites and also surgical instruments with the aid of foreign agencies. There is a proposal to put some form of

restriction on the indiscriminate use of antibiotics by prohibiting their sale except on the prescription of a registered medical practitioner.

Family Planning.

The Planning Commission have adopted Family Planning as a part of our National Health Plan. The eminent scientist Dr. Julian Huxley has complimented India for being the first great country to enunciate a national policy in this matter. Margaret Sanger, Hon. President, International Planned Parenthood Federation, has paid a similar tribute to India. An active public opinion has to be created in favour of family planning and birth-control advice and service has to be made available at hospitals, health and maternity centres. A Central Board has been started to give an impetus to this programme and a provision of Rs. 5 crores has been made for this purpose. The Madras Government have been foremost in taking action in regard to the family planning programme. We must be thankful to the State Branch of the Indian Medical Association for indicating their willingness to co-operate with the Government in this task.

Three Dimensional Approach.

We are living in a period when medical science is progressing more than ever before in history. Medicine has become divided into ever so many sub-sections. Each speciality is becoming a colossal thing in itself and there is bound to be further subdivision. These great developments should not make the medical man lose sight of the fact that medicine is a profession and not merely a technology. The focus of medical practice has shifted from the disease to the patient. The patient is not just a case. He is a human being with a peculiar psychic background, living in a particular environment. All disease is now recognised to be psychosomatic. If disease is to be dealt with successfully, mind and body have to be treated concurrently. The doctor must also study the environmental and social factors which play a large part in the genesis and course of the patient's illness. This three dimensional approach to the patient takes due note of the mental and social no less than the physical aspects of disease. The doctor who takes such a broad view becomes cognisant of the fact that his duty is not only to cure disease but to prevent it and promote health.

Modern Trends in Indian Agriculture

Agricultural Research Today

Time is very opportune for the agricultural research workers to consider to day's trend in agricultural research and ponder deeply as to how it is highly favourable for the fulfilment of the ambitious programme of the All-India Planning Commission so far as crop production is concerned. Very aptly indeed that the Madras Agricultural Students' Union had held in the first half of August 1956 under the distinguished presidency of Dr. J. S. Patel, Additional Agricultural Commissioner, Planning Commission, Delhi. Various specialists presented their views at the symposium. A brief review of what they are is presented in this article.

India has just entered the Second Five-Year Plan period. It is needless to state that the first Five-Year Plan was mainly an agricultural plan. Achievement in the First Plan period is really marvellous. The level of food production in 1955-56 increased by about 15 per cent when compared with that of 1949-50. In the Second Five-Year Plan also sufficient attention has been focussed on the development of agriculture. The target of crop production fixed for the current plan period is 40 per cent increase so far as cereals are concerned.

The Agronomists, the Plant Breeders, the Plant Pathologists, the Agricultural Meteorologist, the Agricultural Chemists and the Agricultural Engineers have to work in a team to enable the country to operate successfully the various agricultural plans envisaged in the current plan period. These scientists do not feel shy to copy, wherever necessary, the trends of agricultural research in other foreign countries. The adoption of the Japanese method of rice cultivation on an all-India basis, is an unique illustration in full support of this statement. In the First Plan period this method was adopted in an area of 20 million acres and in the present Plan period this area is proposed to be doubled. In brief, this method satisfies fully and efficiently three basic principles of crop production, namely, judicious selection of seed material, adequate manuring and effective inter-cultivation. The possibility of adoption of similar improved methods of cultivation for other food and commercial crops is also being explored with the main intention of stepping up the yields of crops and maintaining their high yields in a steady manner to the extent possible.

When the role of the Plant Breeder is considered for a while it will be evident that his extreme anxiety is to evolve not only high yielding but also

his next aim is to have four instead of two. It is good in a way. The farmers are aware of the magnificent role played by the Plant Breeders in this direction.

C. BALASUBRAMANIAN,
Agricultural Meteorologist,
Coimbatore.

Anti-soil erosion measures.

disease-resisting strains of economic crops. Achievement in this direction is really something substantial. But a scientist is never satisfied with his achievement. If he succeeds to grow two blades where one grew previously,

"Good soil means good crop." It is an old proverb. The saying that "Earth has room for all" will be true only when the earth is properly protected. Soil erosion due to winds and floods is a serious problem to be solved. Schemes for adopting effective preventive measures for soil erosion are making good headway on an all-India basis. For proper management of soil



Dr. Panjabrao Deshmukh, Union Deputy Minister for Food, Fisheries and Agriculture, initiating the All-India Fisheries Conference at Rajaji Hall.

effective agricultural implements are being manufactured and made available to the farmers at reasonable costs.

From the point of view of crop production maintenance of fertility status of the soil is as important as selection of good seed. Intensive research is progressing in this direction and useful guidance is being given to farmers. The importance of radio-active isotopes in assessing the fertility status of the soil and the performance of various fertilizers under different conditions is also given due prominence in to-day's agricultural research. Large-scale production of manures and fertilizers is also receiving attention of the authorities. When the production is stepped up, naturally timely availability of manures and fertilizers will also be easy, perhaps well within the means of the ordinary farmers.

Co-ordinated Crop Weather Scheme.

Coming to the incidence of pests and diseases on crops the Plant Pathologists are giving very useful guidance to the farmers to adopt effective prophylactic measures and subsequent control measures as well. A number of pesticides and insecticides are in the open market. The farmers get correct guidance as to which of them to be used for a particular crop and that too for a particular pest or disease as the case may be. The

role of antibiotics in the control of diseases on crops is also being investigated. The Plant Breeders also are focussing their attention on the evolution of disease-resisting strains. The latest approach to the problem is the exploration of the possibility of forecasting the incidence of pests and diseases on crops from a knowledge of the existing weather conditions and this is one of the main aims of the All-India Co-ordinated Crop Weather Scheme. Incidentally suitable field techniques are also being evolved to assess the extent of damage done to crops by pests and diseases under field conditions.

"Waste not and want not."

Improvement to irrigational facilities is also receiving adequate attention. The agricultural research workers give a modern approach to the study of water requirements of crops. Assessment of minimum water requirement of crops will go a long way to derive the best from the existing slender irrigational facilities. This is in consonance with the policy "Waste Not and Want Not." Research in the direction of deriving energy from winds for irrigational purposes and seeding of clouds to get rains whenever there is heavy favourable cloud formation is also in the scheme of modern agricultural research.

One adverse major factor in crop production is the heavy damage done

to crops by the sudden and violent changes in weather. Steps are being taken by the Madras Agricultural Department as to how best it can come to the rescue of the farmers in this connection. Effective measures are being contemplated to control heavy damages to crops due to floods.

The present-day trend in agricultural research is very helpful to get the best from the soil and also to protect the interests of the tillers of the soil in all possible ways and means. The agricultural research workers of to-day have enough food for thought and they are sure to produce enough food for belly to everyone in the country.

Certification Mark for National Flag

The Indian Standards Institution has granted a licence for use of its certification mark to Messrs. Khadi and Gramodyog Bhandar, 396, Kalbadevi Road, Bombay, for the National Flag of India.

The mark will certify that the flags have been manufactured in conformity with the relevant Indian Standard, viz., IS :1-1951. The standard mark consists of the monogram of the Indian Standards Institution, the number designation of the Indian Standard being inscribed in the top side of the monogram. The mark will appear on the sleeve of the flags.

The National Flags bearing the standard mark will convey an assurance to the purchaser that they have been manufactured under controlled conditions and are of the quality laid down in the Indian Standard. If any purchaser has any complaint about the quality of the National Flag bearing the standard mark, he could send his complaint to the firm and also to the Indian Standards Institution.

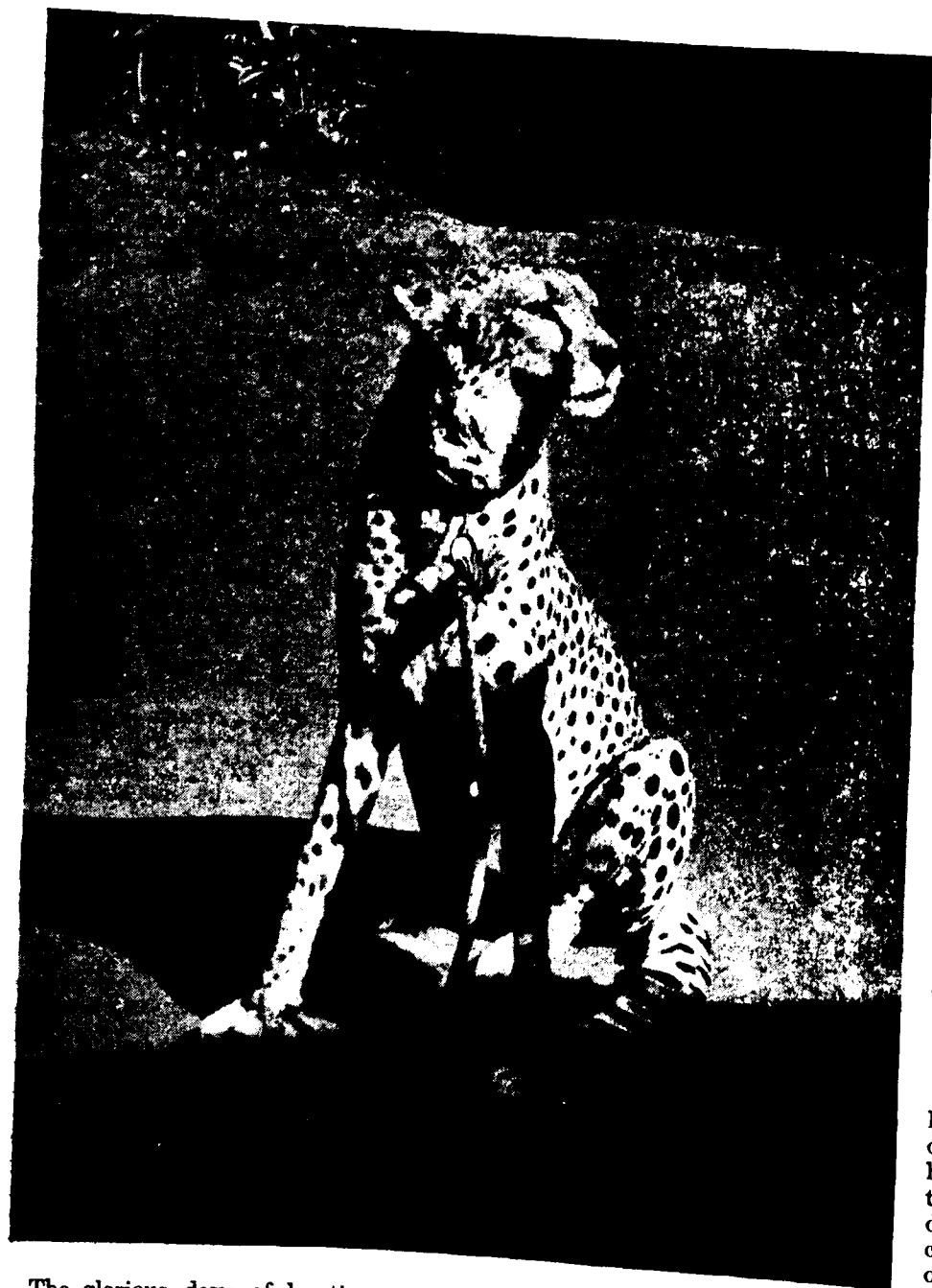
It has not been uncommon to see National Flags of all types of sizes and colour shades being used even on ceremonial occasions. The use of Standard National Flags is now possible with the availability of certified flags.

The marking of the flags will commence from October 2, 1956, the birthday of the Father of the Nation.



A section of the delegates to the Fisheries Conference.

Hunting with Cheetahs



The glorious days of hunting with Cheetahs have vanished never to return. Cheetahs so abundant in the past have now to be painfully written off the list of mammals in India. They are completely extinct.

It is expedient at the outset to clear the confusion regarding Cheetah and

Panther prevalent among laymen, for, several call Panther, Cheetah.

They are different.

Strictly speaking, Cheetah does not belong to the cat family though in appearance it is so like the cat. It belongs to a separate genus altogether,

and possesses only partly retractile claws unlike the Panther which has completely retractile claws. Cheetahs have long legs, long tails, small roundish heads and dark solid circular spots slightly bigger than a four-anna coin against a pale cream ground unlike panthers who have short legs, comparatively short tails and fairly good head and diffused spots against yellowish ground. Another distinguishing mark is that Cheetahs have dark perpendicular lines running from the eyes to the lower jaw which are conspicuous in panthers by their absence. Cheetah is about 7 feet in length and Panther slightly larger. Panthers are cunning and untrustworthy and Cheetahs are kindly in disposition and make nice pets.

Cheetahs in their wild state select three places. In one part of the country they hunt, in another they rest

M. A. BADSHAH,
Madras Forest Service.

and sleep and in the third they play and amuse themselves. They prefer to sleep on the summit of the hill under the shade of trees. Cheetahs, fastest of all animals, were used as trained hunters by the kings and maharajahs in the ancient India. Being nimble and swift they easily overtake any animal however fast it may run. They almost appear to fly. It is astonishing to see them chasing antelopes and deer and overtaking them.

In the days of the Great Moghul.

Emperor Akbar was so fond of hunting with Cheetahs that he developed this technique a great deal in his time. Agra and the adjoining districts were full of Cheetahs. By various devices hundreds of Cheetahs were captured by the Emperor and employed on shikar after giving them training. Before Emperor Akbar's time it took three months to train a Cheetah but whereas the Emperor had mastered the technique so well that in 18 days the Cheetah was out with him in the hunting ground fully trained. Four men were appointed to look after each Cheetah. Nine thousand Cheetahs were kept in His Majesty's park forming an interesting encampment. They

were divided into various classes. The first class Cheetah got 5 seers of meat a day, second class 4½ seers; third class 4 seers and so on up to the eighth class. No animals were killed on Sundays. Double the daily ration was issued on Saturdays.

His Imperial Majesty was taking keen personal interest in looking after the Cheetahs. Many incidents have been recorded about his affection for these animals. His Majesty had become such an expert in training them that once there was a fresh capture and without any training, on a mere hint from His Majesty, the Cheetah darted like an arrow and brought in a deer with the ease of trained one. A Cheetah hypnotized by the wonderful influence of the loving heart of His Majesty followed the imperial suite without a collar or chain and like a sensible human being obeyed every Royal command. On account of the extreme kindness shown by His Majesty a deer made friendship with a Cheetah and both lived in peace happily for several years.

Freedom from Bondage.

The men employed to train and look after the imperial Cheetahs were handsomely rewarded on occasions when the animals showed extraordinary skill in hunting.

By a close and careful study of the ways and habits of these animals His Majesty introduced many changes in their maintenance. Formerly Cheetahs were never allowed to remain loose in the evenings as the keepers were afraid of their ferocity and anxiety to escape from custody at the slightest opportunity. Further they were kept blind folded except at the time of chase. But in consequence of the experience His Majesty gained of these animals he ordered that the Cheetahs should be let loose in the encampment without covers for the eyes. To the astonishment of all, the Cheetahs remained calm and obedient.

Cheetahs were taken to the hunting ground by His Majesty on elephants, camels, horses, mules, in carts and palanquins. The best Cheetah His Majesty had named *Samand Manik* was carried in a *Chaudol* (Doly) in front of His Majesty with much pomp and splendour, his servants fully quipped and decorated running at the sides of the *Chaudol*. A large drum was played in front of this Cheetah heralding his march.

On arrival at the hunting ground the Cheetahs descend from their mounts and reconnoitre the area. They proceed on the sly against the wind and getting scent of the prey give indication to the men following them about the direction they should follow. The attack was planned in three ways.

First, the men unleashed the Cheetahs to the right side of the place where the deer were found feeding. They swiftly leap out and seizing the prey bring it to the men.

Secondly, the Cheetah lies concealed and the deer is shown to it from a distance. Then it dashes off, leaping from ambush to ambush until it seizes the prey.

Thirdly the Cheetah conceals itself in a bush having the wind blowing towards him. Then the cart supposed to be carrying the Cheetah is taken to the opposite direction and left. This perplexes the deer. When it is looking suspiciously at the cart, the Cheetah surprises her from behind with lightning speed and grasps the deer.

Besides these, several other devices were adopted in hunting deer. The Cheetah will raise a storm of dust with his fore and hind paws in order to conceal himself or lie down so flat on the ground that it will be impossible to distinguish him from the surroundings. When the deer approaches him unawares it springs a surprise on her. A Cheetah will hunt as many as twelve deer in a single chase. He was taught to hunt only stags and not does. If by chance he seized a deer he was punished by depriving him of his share of venison of the day. In this way they were encouraged to hunt only stags.

Cheetah is gone, gone for ever.

These happy memories of the past make us reflect on our wild life wealth which has dwindled down considerably. India is definitely poor to-day in its faunal possession. Like the thoughtless sons of a rich indulgent father, we have been squandering away our Wild Life Wealth in a reckless fashion. The seriousness of our folly can be gauged from the fact that Cheetahs once so abundant are now completely extinct in India and one had to be imported from Africa at a fabulous price of Rs. 5,000. We stand self-condemned in the eyes of the world to-day for not having valued our precious heritage when we possessed it. If we do not

bestir ourselves and take stock of our Wild Life Wealth and try to conserve it in perpetuity many of the present-day animals will meet the same fate like the Cheetah. We may lament all our lives but the Cheetah will not return. It is gone, gone for ever.

Fruit Juice Powder : New Process Developed

A new process for the production of fruit juice powders from mangoes, oranges and papayas has been developed at the Central Food Technological Research Institute, Mysore.

Fruit juice powders are not manufactured in India at present.

The powders are becoming increasingly popular particularly for feeding infants and children. They are palatable and constitute a rich source of vitamins. They can be reconstituted into juices having almost the same nutritive value as juices prepared from fresh fruits. It is also more convenient to transport the powder.

Under the new process pretreated fruit juice is concentrated and mixed with powdered sugar, fortifying where necessary with vitamins, minerals, salts, colours, flavours, fruit acids, etc. Drying is done in an ordinary cabinet drier or in vacuum driers. The dried material is powdered and suitably packed.

There is considerable scope for developing fruit juice powder products in India because of plentiful supply of fruits in certain regions at cheap rates. Mangoes are found all over India. Supplies of oranges are available in Madhya Pradesh, Mysore, Tripura, Assam and Bihar. Substantial quantities of papayas are grown in Bombay, Madhya Pradesh, Assam, Uttar Pradesh and Orissa.

The process is covered by Indian Patent No. 49590 and has been successfully worked out on a semi-pilot plant scale.

Parties interested in undertaking commercial utilization of the process are invited to write for further details to the Secretary, National Research Development Corporation of India, Mandi House, Lytton Road, New Delhi-1.

The word, *mangroves*, should in no way convey the impression that it has anything to do with the delicious mangoes, or the mangosteins! As most enlightened and regular visitors to the Government Museum, Madras, will point out, by *mangroves* is meant only a kind of vegetation which is composed of woody plants, and which clothe the most tropical and sub-tropical, estuarine, coastal and back-water swamps. The singular form of the same word refers to a particular plant which grows in similar situations, and which is known to botanists as *Rhizophora mucronata*. Some mangroves grow also on coral reefs.

The way the mangroves solve their life-problems, is an interesting subject for study; and for an easy and proper appreciation of the same, a knowledge of the topographical and other conditions in their locality, seems a prerequisite. After a youthful and fast life of erosion and denudation, rivers attain their old age and sluggishly meander in their own penneplain before they empty themselves into the sea. When their velocity is checked on reaching the sea, deposition of the numerous sediments (that are carried in the rivers), begins. Thus the depths of the rivers are reduced and a number of estuaries are brought into existence. The process of deposition of sediments is, however, continuous, resulting in elevation of the river-bottom to the level of the surface. This brings about the formation of a number of marshes. The marshes get submerged at regular intervals under sea-water which gushes in during high tides. The sea-water advances and recedes alternately, building up sand bars and dunes. The sand deposits substantially reduce the amount of sea-water escaping back to the sea. Eventually the area becomes one of salt marshes, where the soil is water-clogged almost to the point of saturation. But the water all around and in the soil is salt-water which is rendered more and more concentrated by each flush of sea-water and by the evaporation that continuously takes place at the surface. In short, the land is loose and muddy without any air-space, and in the form of marshy islands in shallow, stagnant sheets of brackish water.

The Mangroves

Woody plants require a firm ground which should not give way to their weight. In addition, they require air to breathe, water to drink and food to eat. It is needless to say that salt-marshes of the type described above, can hardly provide for any of the basic vital needs of the woody plants growing on them.

It is perhaps best to leave it to imagination, what the probable consequences would be if the plants around us suddenly become motile (or start moving from place to place)! But the principles of *Pancha Shila* seem to command respect even from the Vegetable Kingdom! For almost all plants

M. S. CHANDRASEKHAR,
Curator for Botany, Madras Museum.

with the exception of a few primitive ones (illustrations of which are also shown in the Government Museum, Madras), are sedentary (or attached to a sub-stream). The task of holding the plant on to the soil, is executed by the roots in addition to their other duties. In this regard, the difficulties of the roots in marshy soils, hardly call for any special accounting.

Plants do not have exclusively respiratory organs which the animals possess. Every organ of a plant carries on respiration quite independently of every other organ. This is true even of the roots which make use of the air in the minute spaces between the soil-particles. There is hardly any such air-space for the roots in the salt-water swamps.

The major bulk of the plant body as in the case of other living things, is made of water. Water is also one of the substances with which the plants prepare their own food. Also the food that is manufactured within the plants, is moved from the place of manufacture to the places of use, storage, etc., only through the medium of water. Purposes for which water is required by plants, can be multiplied thus.

But it would suffice to say that there can be no life-activity without water. The chief water-absorbing organ in plants, is the tip of the roots and root-lets. Thin, porous membranes of these parts separate the internal sap which is of higher concentration, from the external soil-water which is of lesser concentration. Through the process of osmosis (solution of lower concentration flowing through a porous membrane and mixing up with that of higher concentration), the soil-water is absorbed by the roots. Excess water is expelled by the plants generally in the form of vapour from the leaves (which process is termed transpiration). There is no doubt plenty of water in the salt marshes. The soil is so full of it. But the water that is available is saltish, and the concentration is so high that osmosis can hardly take place. In other words the plants, though rooting in mud and standing in water, yet face the conditions of a severe drought!

It seems to be God's decree, that plants alone should manufacture the natural food materials not only for themselves, but also for the other living things! The manufacture is carried on in all the aerial, green parts of the plant (such as the leaves, etc.). There, starch is prepared by the green pigments, using water, air and the energy contained in sunlight. Even in the salt marshes, therefore, a well-established plant will find no difficulty to prepare its own food, subject, of course, to the availability of water (for which it should have made adequate arrangements already). But, what of the young plants, the seedlings sprouting from the seeds? Things falling on the loose muddy soil, bury themselves very deep in it. The fruits and seeds are no exception. Surely, the seeds cannot maintain an indefinite supply of food to the seedlings till they could grow up from their depths and put forth green leaves above the soil.

It will be an interesting study, therefore, to find how the mangroves manage their affairs in salt-water swamps.

The mangroves have special ways of putting up with the soft and loose kind of soil underneath, and can be

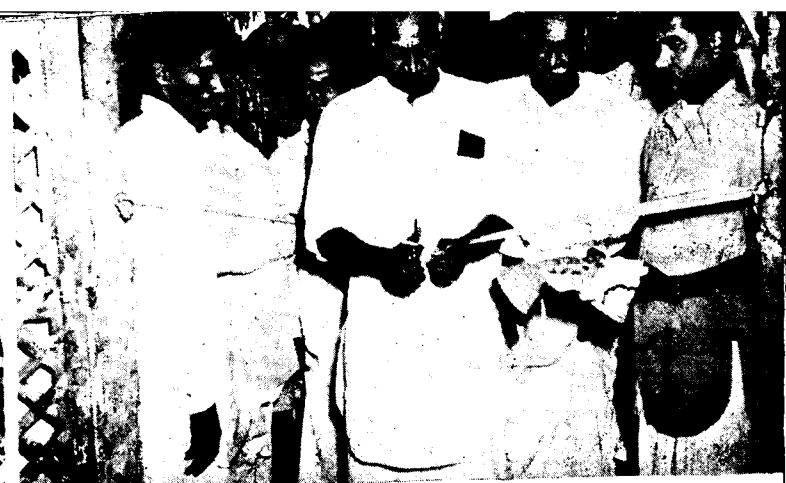
THE CHIEF MINISTER'S TOUR OF RAMANATHAPURAM - -



-- ACTIVITY IN THAT DISTRICT,
WHICH GREETED HIM - -



-- IN WHICH CHILDREN AND
ADULTS ALIKE PARTICIPATED.



-- WAS THE SIGNAL FOR A NEW
ROUND OF DEVELOPMENT - -



-- WITH GAY SCENES OF
FUN AND FESTIVITIES - -





It was red carpet all the way, all the time, to the Attlees when they visited Madras for a 5-day stay. Manifestation of the people's regard for them as champions of the common man, was evident wherever they went.

neither dislodged nor uprooted easily. As a rule they attain neither great stature nor great circumference. The roots radiate generally for long distances. The principal stem usually remains short as compared with the plants of other places, and sends out low-spreading branches. The combined effect of all these characteristics, is to give stability to the tree and protect it against sinking down or toppling over. Some plants, like the Mangrove (*Rhizophora mucronata*), the Sea Holy (*Acanthus ilicifolius*), etc. take also additional precautions. Above a certain height from the soil, cylindrical roots spring from the sides of the stem, run horizontally for a short distance, and then curve down and strike the soil. Since they act as stilts to keep the stem propped up, they are known as stilt roots or prop roots. Long, heavy and woody branches of some of the plants, like the White Mangrove (*Avicennia officinalis*), endeavour to lessen their burden, by sending down clusters of aerial roots of the type that is often seen in plants of other situations, like for instance the Banyan (*Ficus bengalensis*). On reaching the soil the aerial roots grow in strength and girth, and support the weight of the branch above them much as if a new and independent plant has come to exist.

The roots of certain mangroves, like the White Mangrove (*Avicennia officinalis*), develop special organs for purposes of aeration within the water-clogged, marshy soil. These organs are known as *pneumatophores* or (more popularly as) breathing roots. They are cylindrical with tapering ends. They grow vertically upwards from the roots and rootlets, through the overlying mud and water, and into the air. Their aerial portions contain minute openings, called *lenticels*, through which the roots and rootlets get their quota of air. The exposed portions of the stilt roots of the Mangrove (*Rhizophora mucronata*), contain lenticels which, in addition to *pneumatophores*, help aeration of the portions underneath the mud.

Though surrounded by sheets of water, the mangroves face with grim determination, the conditions of eternal drought (which has already been explained), in much the same way as many other drought-resisting plants do. The leaves of the Mangrove and the White Mangrove, become thick and

coriaceous (or leathery), and store water. The nerve-endings in the leaves of the White Mangrove, dilate and form additional water-storing tubes and conserve water. The stomata on the leaves of this plant are also protected by a dense covering of hairs.

The mangroves have interesting ways of providing for their young. Their fruits contain plenty of air-spaces which render them light and capable of floating in water. They are drifted about by the tidal currents, and if they happen to be deposited on places favourable to them, the seeds begin to germinate. In this way the young plants are enabled to grow free from unhealthy competition and resultant starvation. Yet another way the mangroves cater for their young, is even more interesting. Their seeds germinate even while the fruit still remains attached to the parent plant. In the case of the fruits of the plant which is known botanically as *Aegiceras corniculatum*, the embryo emerges from the seed but remains within the fruit. Not

only the embryo but also the endosperm comes out of the seed and remains exposed within the fruit, in the case of the White Mangrove. The Mangrove (*Rhizophora mucronata*) shows a very high degree of advance on these lines. The embryo of this plant grows into a seedling, putting forth leaves into the air at one end of the fruit and roots at the other end. The leaves of the seedling start preparing the food material that is required, even before the fruit separates from the parent plant. After the seedling has grown well enough for leading an independent life, it drops down from the branch. The end bearing the leaves is kept uppermost owing to the resistance offered by the air; and the other end with the roots gets deep into the mud. The new young plant thus born, starts life in the difficult environs.

It is really worth one's while to spend some time on the specimens and photographs which are illustrative of the interesting way the mangroves live, and which are displayed at the Government Museum, Madras.

Credit Facilities for Handloom Industry

The question of credit facilities for working capital to the Handloom Industry has been recently engaging the attention of the Government. Hitherto such working capital had been provided as loans to Weavers' Co-operative Societies from the Handloom Cess Fund. Up to the end of March, 1956, an amount of more than Rs. 5.6 crores had been sanctioned.

It was realised, however, that sooner or later, such credit would have to come from the normal co-operative banking institutions. With the increased production of cloth through the Handloom Industry under the Second Five year Plan, the need for such working capital would also increase very considerably.

The Reserve Bank has agreed to make facilities available at a reduced rate-at present at the rate of 2 per cent. Adding the usual margins for the Apex and the District Co-operative Banks, this would normally mean an ultimate lending rate of 5 per cent. It has been decided, however, that the Weavers' Co-operative Societies should be enabled to get loans at only 3 per cent. The difference between this 3 per cent and

5 per cent would be given, therefore, as a subsidy by the Central Government from the Cess Fund.

In order to ensure that sufficient credit is made available, the Central Government have also agreed to bear a 50 per cent share of individual losses arising out of non-recovery of any such loans, subject to the prescribed overall ceiling. The remaining 50 per cent of such losses would be borne by the State Government and the Co-operative Banks concerned.

The Central Government have also agreed to share with the State Government the cost of the additional staff that would be required to ensure adequate supervision and audit of accounts of the Co-operative Societies, and of the lending operations of the Co-operative Banks.

It is intended that these arrangements should come into force from April 1, 1957. Loans will continue to be disbursed from the Cess Fund as hitherto until that date, and where arrangements cannot be completed within this time, loans will also continue to be given from the Cess Fund till the end of September 1957.

Public meetings, personal enquiries, inauguration of local development works, inspection and appreciation of local talent and initiative—all this and more was in a day's work when Sri K. Kamaraj, Chief Minister of Madras, went on a tour of Ramanathapuram district.

16D

Progress of Work at Neyveli Lignite Project

Phased Programme for Purchase of Mining Equipment

Orders have been placed at the end of the month of September for the supply of major specialized equipment for lignite mining at Neyveli, such as bucket-wheel excavators, slower spreaders, belt conveyors, track shifter tractors, etc., at a cost of Rs. 4 crores, delivered at site. Earlier in August last orders were also placed for conventional earth-moving equipment to a total value of Rs. 1.57 crores. A number of other items of equipment will be needed for the development of the mine. The requirements are being assessed and detailed specifications of the equipment are being drawn up. Tenders for the additional equipment required are likely to be invited before the end of the year. Earth-moving operations with conventional equipment are expected to commence in the first quarter of 1957 and the first bucket-wheel excavator is expected to be available towards the latter half of 1958.

The plan for the intricate operations involved in open cut mining for the removal of a large volume of overburden, and the winning of lignite above a series of artesian aquifers, is now under consideration and will be finalized before the end of the year. The quantities of the various materials which will be needed for the construction of quarters for the personnel, who will be employed in mining operations, and on the construction of the various production units included in the scheme are also being estimated.

Good progress has been made by the Planning Cell of the Central Water and Power Commission located in Madras, in the planning of the proposed thermal station at Neyveli, and a rough draft of the scheme for the 200 M.W. power station is expected to be ready before the end of this year. The planning of the Fertilizer Unit is also in progress and the Chemical Engineer is now abroad on a visit

to the United States and to Germany to study developments in technical processes. The planning of the briquetting and carbonizing plant will be taken up after experiments have been conducted with the help of a pilot briquetting and carbonizing plant under supply from T.C.M. Aid and expected at the site in April 1957.

Plan for a Model Township.

A contour survey of the entire area has been completed. A town-planning expert has been appointed to prepare a general lay-out plan of the entire extent, earmarking the area suitable for locating production units, workshops, stores, etc., on the one hand, and the area suitable for the location of the proposed township, training institutions, etc., on the other, and to prepare a detailed lay-out of the township after its location has been decided on. An Architect has also been appointed for drawing up the designs and plans of the various buildings needed for quarters, offices, amenities, etc. The intention is to make the township a model one in every way.

The Government of Madras have promised to supply electric power to the extent of 12,000 K.W. to work the specialized mining equipment and other items of construction machinery, till power from the proposed thermal station at Neyveli becomes available. For this purpose, they have sanctioned the construction of a 110 KV line from Villupuram to Neyveli, and tenders have been received by the Madras Electricity Department for the construction of this line. Work on the line is expected to commence early in 1957. Matters relating to the arrangements to be made for stepping down and distributing the power supplied by the Madras Government for the construction work and development of the mine were discussed recently at Neyveli at a conference at which the Chief Executive Officer of the Project,

the Member (Power) and other officers concerned of the Central Water and Power Commission, the Chief Engineer (Electricity), Madras, and the General Superintendent in charge of field operations at Neyveli participated.

Acquisition of land for mining.

To check inflation in the value of lignite-bearing lands, the Madras Government had enacted legislation in 1953, pegging the value of lands in 69 villages in the Chidambaram, Vridachalam and Cuddalore taluks of the South Arcot district to the value obtained on April 28, 1947. On the representation of the inhabitants of the lignite area, the Government of India have recently approved the release, from the scope of the 1953 Act, of 43 villages, the lands in which will not be required for mining for quite some time. They have also approved the immediate acquisition of the lands in 15 villages in the pegged area needed for mining, and seven villages outside the pegged area required for the construction of the production units, workshops, railway sidings, training institutions and quarters for staff. The entire land will be acquired with reference to need, under a phased programme, and the displaced people will be rehabilitated in suitable areas for which proposals are being drawn up.

Do You Know?

A provision of Rs. 90 crores has been made in the Second Five-Year Plan for the amelioration of the Backward Classes as against an allotment of Rs. 39 crores in the First Plan.

Two hundred and fifty-three foreign students are studying in 80 educational institutions in India under the Colombo Plan.

Over 20.54 lakhs workers all over India are covered by the Employees' Provident Fund Scheme, which came into effect in November 1952.

Homo Sapiens

History of the Scientific and Cultural Development of Mankind

UNESCO is sponsoring preparation of a "History of the Scientific and Cultural Development of Mankind" to show the Inter-dependence of nations and their cultures in a just light. This article gives an account of the nature and scope of the work which has been entrusted to a group of scholars.

It would be difficult to try and draw the peoples of the world together in closer comprehension and friendship if they knew nothing of each other's history, traditions and contributions to the common heritage of mankind. That is why Unesco attaches such importance to the study of history in general. And that is why in particular it has entrusted a group of scholars with the task of preparing a "History of the Scientific and Cultural Development of Mankind" to show the inter-dependence of nations and their cultures in a just light.

The work has been taking shape since 1950 under the guidance of an International Commission, composed today of 29 members, representing 20 countries, with the Brazilian scholar, Professor Paulo de Berredo Carneiro, as Chairman. Professor Carneiro described it as a "work which might help educational institutions in the different countries to attach less importance to history from the national angle and lay greater emphasis on what the peoples have gained by knowing each other".

The undertaking, which is designed to appear in 1960, consists of six volumes devoted respectively to the following periods; (1) Pre-historic and archaic periods, up to 1200 B.C.; (2) From around 1200 B.C. to 400 A.D.; (3) From 400 A.D. to 1300 A.D.; (4) From the beginning of the fourteenth century to the end of the eighteenth century; (5) The last years of the eighteenth century to the beginning of the twentieth century; (6) The beginning of the twentieth century to 1950.

The introduction to each volume will contain a brief summary of the

period in question, considered under its aspect as a stage in universal history. It will indicate the position occupied by the different peoples of the world at that time, and their relations with each other. Commerce, wars, travel, migrations, are dealt with as and how they influence cultural exchanges.

Six Main Themes.

Following the introduction, each volume deals with the different cultures of the time and their reciprocal influences. Six main themes emerge and are treated in turn: (1) Languages and systems of writing, intellectual institutions of the period, and education; (2) Science and technology and their application to agriculture, industry and medicine; (3) Division of

labour and the social structure, government and law; (4) Scientific theories, religious beliefs and philosophical systems; (5) Creative forms of expression, arts and literature; (6) Theory of knowledge and scientific method, new forms of thought, investigation and belief.

The conclusion of each volume, as its introduction, is conceived from a universal point of view. Taken as a whole, the work displays in methodical sequence the evolution of the peoples of the world, their progress, and the way in which human existence has been transformed.

(Continued on page 29)



A pleasant interlude in the Home Science Economics Conference held last month in the city.

Four Years of Community Development Programme

The Community Development Programme enters fifth year of service. Launched on October 2, 1952, in about 55 projects, the Programme now covers more than one-fourth of India's 5½ lakh villages, and one out of every three villagers participates in its implementation and enjoys its benefits.

If the physical achievements and the people's contribution towards their realization are any guide, the Programme appears to have justified its description of a "People's Programme with Government's Participation". In terms of money the people's contribution, offered in the shape of cash, kind and labour, has been Rs. 26.13 crores as against the Government's Rs. 46.02 crores in the total expenditure of Rs. 72.15 crores till March, 1956.

The people, thus, have contributed nearly half of what the Government has spent.

Coverage under the Programme.

The 557 Community Development Blocks and the 603 National Extension Service Blocks, operating in the country, today cover 157,347 villages with a population 88.8 million. In another 311 N.E.S. Blocks work is going to start today, October 2, 1956. These blocks will cover about 31,000 villages with a population of about 20 million.

The Projects and the Development Blocks, in which the Programme was first initiated four years ago, have now completed their phase of intensive

development. During the period, 338 N.E.S. Blocks, where the achievements were impressive, were also converted into Community Development Blocks for intensive development. And today, another 64 N.E.S. Blocks will similarly be turned into Community Development Blocks.

Physical Achievements.

Since the prosperity of our rural areas is largely dependant on agriculture, the Programme, from the very beginning, gave it the first priority. Efforts have been made to educate the farmers in the use of improved agricultural implements, in the better methods of cultivation and to persuade them to adopt improved seeds and fertilizers, etc.

Till March this year, 9,159,000 maunds of fertilisers and 4,826,000 maunds of improved seeds were distributed; 1,282,000 demonstrations of better agricultural techniques were given, and more than 20 lakhs of acres of additional area brought under irrigation. According to random sample surveys, the average yield of principal crops in the Community Development areas now exceeds the overall average yield for the whole country by about 20 to 25 per cent.

It is also estimated that the 11-lakh acres of land that have been reclaimed have added nearly 75-lakh maunds to the country's food production.

Besides, 157,000 acres of land have been planted with fruit trees and 388,000 acres brought under vegetable cultivation.

In the sphere of animal husbandry, till March, 2,563 Key Village Centres had been opened to improve the breed of the cattle, and 12,824 pedigree animals had been supplied. A pilot project for the eradication of rinderpest was also taken up in the Community Development areas lying south of the river Krishna.



The programme of community development includes house-buildings for the homeless. Some townships have been built in the community development blocks.

Nearly 245,000 birds of improved breed were also supplied to the villagers to encourage poultry-keeping. And about 30 poultry demonstration centres and 30 poultry development blocks have been set up in rural areas.

Development of inland fishery wealth of the country by stocking the water spreads with fingerlings of improved fishes has been another important aspect of the Programme in appropriate localities.

Road Construction.

Construction of roads has been an item for which the people's enthusiasm has been quite remarkable. Up to the end of March this year, 38,000 miles of *kachcha* and 6,029 miles of *pucca* roads were constructed and 22,000 miles of the existing roads were improved.

Welfare Activities.

The development of medical and health services has also gained considerable momentum. Priority is being given to curative services. Already 674 Primary Health Centres and 578 Maternity and Child Welfare Centres have come into existence. Under the scheme for the provision of safe water supply, 107,000 wells have been either constructed or renovated. During the period, 64-lakh yards of drains have also been constructed. Progress in rural housing is indicated by the 29,000 new and 3,302 model houses constructed up to March, 1956. More than 49,000 houses have been improved by renovation.

Educational facilities in the villages have been provided by opening nearly 15,000 new schools and the conversion of 6,968 ordinary schools into basic type schools. During the period under review, 41,000 Social Education Centres were set up and 996,000 adults made literate. The number of Community Recreation Centres and libraries rose to 99,000 and that of Information Centres came up to 763. A significant achievement has been made in the starting of people's own organisations like the Youth Clubs, Mahila Samaj, Farmers' Unions, etc. which now number about 76,000.

Since the ultimate success of the Programme will depend upon the extent to which the people themselves are able to take over planning and

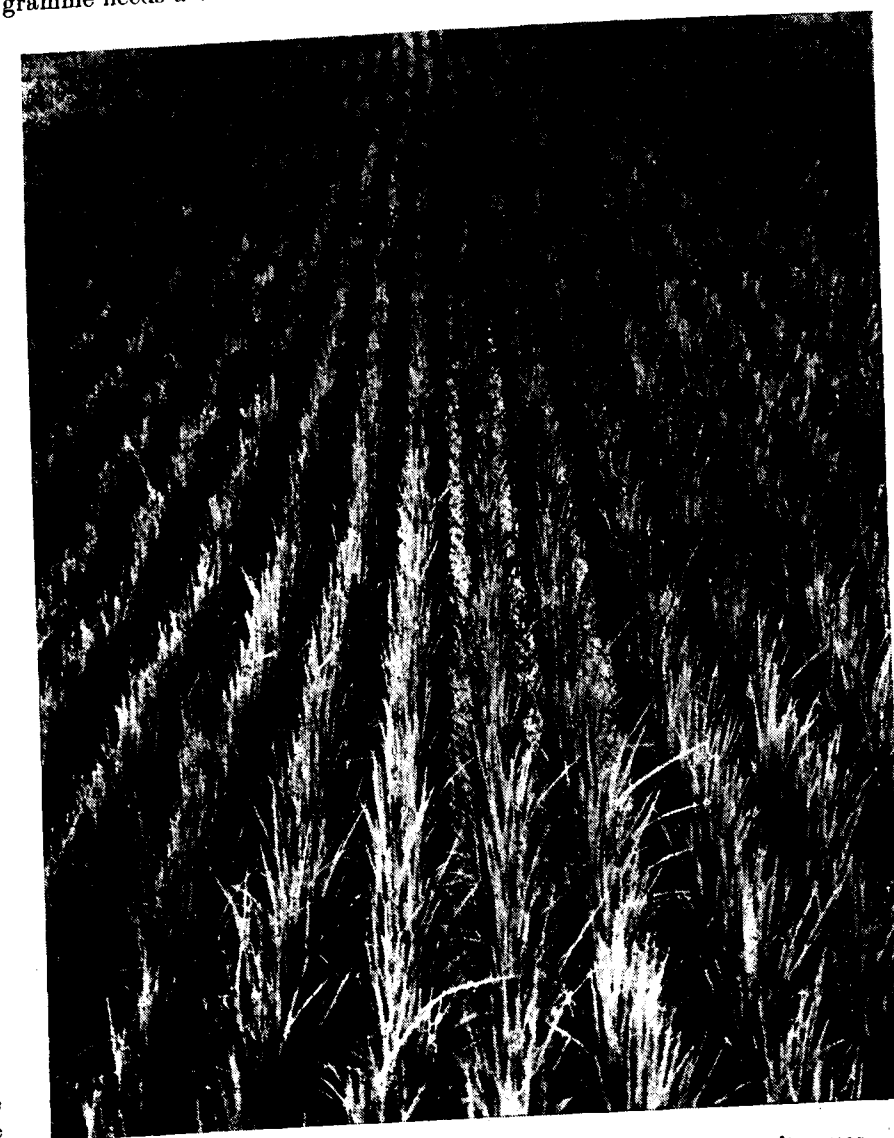
execution of work for their own development, more than 11,540 *Panchayats* and other statutory bodies and 24,829 non-statutory bodies, like Village Councils, Vikash Mandals, etc., have been set up. And nearly 41,000 village-leaders have been trained. About 33,000 new co-operative societies with 17-lakh new members have also come into being.

Work among women and children in the Community Development areas is also receiving due attention. Two pilot projects in this connection have already begun operating in Madhya Pradesh in Hoshangabad and Chikhli Blocks.

Trained Workers.

The implementation of the programme needs a band of workers who

are infused with a new spirit, possess a new outlook and have received adequate training for the multifarious duties they are called upon to perform. The 48 special training centres which have been set up to provide the administration with the requisite trained village level personnel, have trained up, up to the middle of this year, 14,446 Village Level Workers (Extension) and 6,314 (Basic) Workers. More than one thousand officers have been trained at the three Block Development Officers' Training Centres. Another 1,710 Social Education Organisers received training at nine training centres meant for them. The Kasturba Gram Sevika Institute at Indore, the Shivaji Educational Society at Amaravathi and the 22 Home Science Wings of



Japanese method of rice cultivation has been introduced in community areas.

the Extension Training Centres are grooming the future Gram Sevikas. The Ministry of Food and Agriculture, in co-operation with the Reserve Bank, has already trained 39 Extension Officers in co-operation at its eight centres, and the Ministry of Commerce and Consumer Industry has provided training to 63 Extension Officers (Industries) at eight centres. Periodical seminars and study tours are notable features of the training Programme.

Employment Potential.

The Programme, which is expected to employ about three lakh people by the end of the Second Five-Year Plan, already employs about 84,000 persons of different categories.

Besides providing direct employment to 84,000 persons it is contributing indirectly to increased employment by expanding activity in various

tertiary sectors. It is estimated that 4,01,000 people have been provided with part-time and 56,000 with full-time additional employment and, the benefits of the Community Development Programme extend to 5,253,000 rural families at present.

Nearly a threefold increase in the employment opportunities is contemplated through the encouragement of the cottage and small-scale industries in the Community Development areas during the Second Plan period. With this in view, 26 pilot projects have been started.

World-Wide Interest.

The success of the Programme of Community Development has by now evoked interest in countries far and near. Visitors, who have gone round the various development blocks and have acclaimed the achievements of the Programme with full throated

praise, include high dignitaries like the heads of foreign States. Nearly a dozen countries including Burma, Ceylon, Afghanistan, Egypt and Philippines have sent teams of officials to study how India's methods and experience in this field could be profitably utilised by them. A few officers from six Middle East countries are, in fact, undergoing training at the Block Development Officers' Training Centre at Hyderabad at present.

Indonesia and Iran have drawn upon the experience of the Chief and the Secretary of the Community Projects Administration by inviting them to advise on the introduction of a similar programme in those countries.

Second Plan Programme.

An ambitious expansion of this Programme has been outlined under the Second Five-Year Plan. By the termination of the Second Plan period in 1961, the entire country is expected to be covered with the National Extension Service, and not less than 40 per cent of the N.E.S. Blocks will be converted into Community Development Blocks. A sum of Rs. 200 crores have been allocated in the Second Plan for extending the Programme to the remotest corner of the country so that 70 million families living in Indian villages might take part in the working and rejoice in the benefits of this Programme.

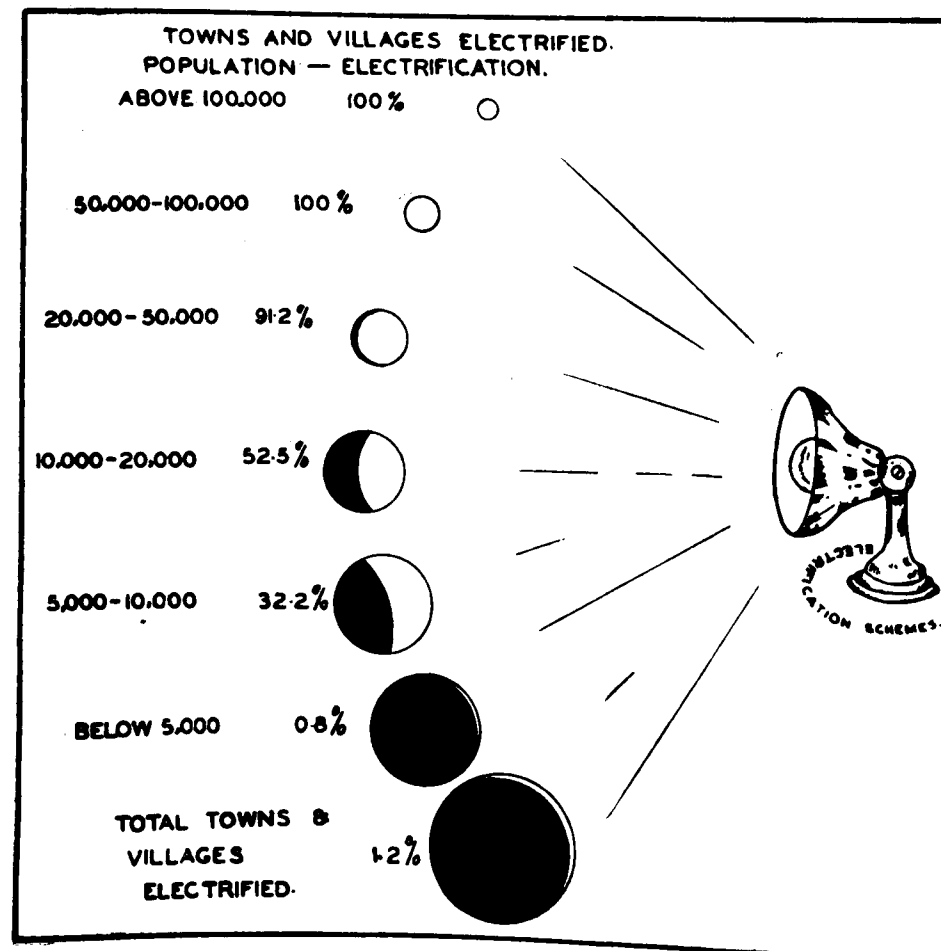
The recent elevation of the Community Projects Administration to a full-fledged Central Ministry, is indeed an indication of the importance which India's leaders attach to the Programme to attain the socialist pattern of society—the country's ultimate objective.

Facts and Figures

A sum of Rs. 89 crores has been provided in the Second Plan for the expansion of elementary education with emphasis on Basic Education.

Output of iron ore in India increased to 325,360 tons in July 1956, from 291,650 tons in June.

In 1955-56, India exported 30,862 tons of cashewnuts valued at Rs. 12.92 crores.



The Second Five-Year Plan provides Rs. 75 crores for Rural Electrification schemes which would electrify about 10,000 villages. The chart shows towns and villages already electrified by December 1955.

Nation's Wealth is in the People's Health

Promotion of Public Health through Community Action

"Cleanliness is next to Godliness" is a well-known slogan. Cleanliness implies not only individual and household cleanliness but also cleanliness of all the places occupied by a community. The body is the temple of the spirit and consequently must be kept clean and pure. "Sarvam Vishnu Mayam Jagad." God is omnipresent. So all places should be kept clean and tidy at all times. A community is made up of individuals and the individuals constitute the population. A family lives in its own house but the community as a whole require certain public places for common use. These are the tanks, wells, temples, hotels, schools, playgrounds, lodging houses, cinema houses, markets, buses and trains, etc. A village is made up of several houses and there will be rich, middle and poor class people in the same village. Those people who can afford will have spacious houses with compounds. Such people can also afford to have their own wells, latrines and manure pits in their compound. But there will also be an equal number of people who cannot afford to have such compound houses. All the same their health needs and wants are the same as the rich. Traditionally

we take pride in the cleanliness of our own houses and daily we are meticulous in sweeping and scrubbing the floors of our own houses and courtyard. But what happens to the rubbish and other wastes formed in a house? These are thrown on the roads and they rot. The poorer people also use common roads and open spaces to attend calls of nature. The human waste rot and disease germs causing Cholera, Typhoid,

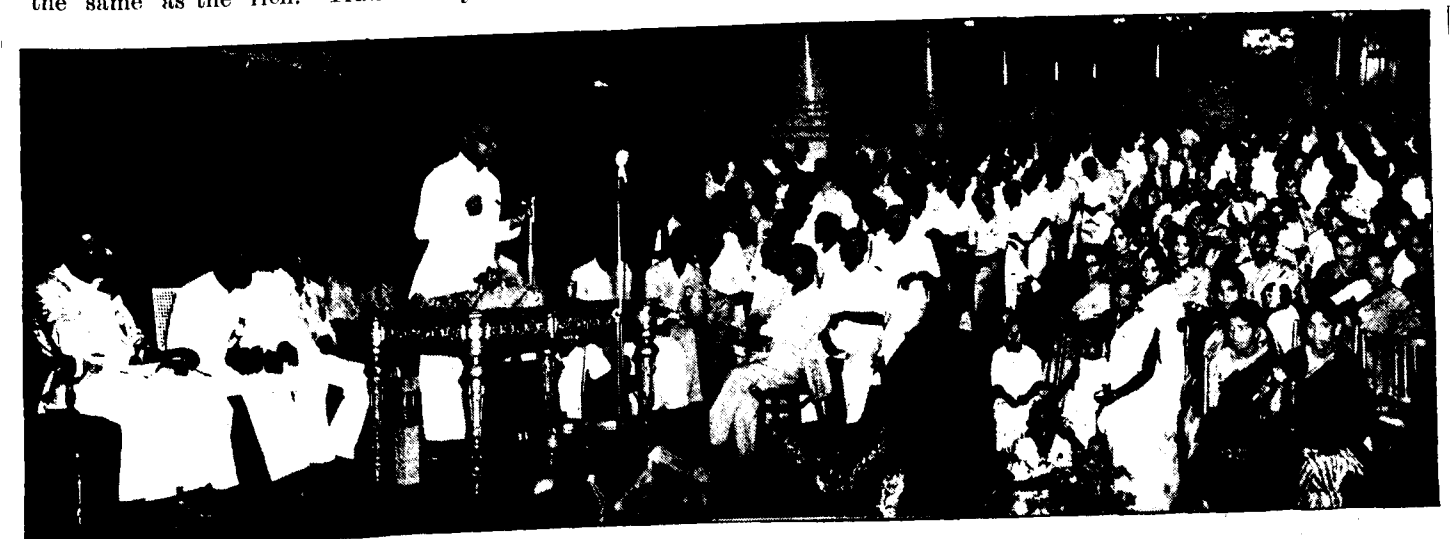
DR. N. R. RAMAKRISHNAN

etc., thrive in them quickly. Flies sit and breed in waste; flies do not discriminate rich and poor and they carry the disease germs from these decomposing waste to all the houses round about and thus epidemics of Cholera, Typhoid, etc., break out. The disease germs are also washed after the rains into the clean water courses. The surface grounds are also soiled and people walking barefooted get hook-worm disease. But you all know that wastes whether organic or inorganic are very valuable as a manure. From waste you can produce

wealth provided you know how to do it. Wastes if thrown indiscriminately produce diseases. But if all the rubbish is collected and conserved properly and if the night soil is properly collected in pits and composted, you will be producing wealth and avoiding diseases. There are also waste waters from the households and these waters have to find a way outside if one has to keep his house clean. If they are let outside on the common road in Kutchra drains, the water stagnates there. The stagnant water breeds mosquitoes and mosquitoes are common sources of annoyance and danger to the community as a whole.

You are your brother's keeper.

The village tank is the one used by almost all people irrespective of caste or creed. One goes there to clean and free oneself from dirt. But imagine for a moment several others using the tank for the same purpose. Persons with diseases like leprosy, itches and septic wounds might have taken bath there before you. Also persons might have cleaned after defecation in the same place. So instead of getting rid of all



The annual meeting of the Secretariat Association held at Rajaji Hall. Sri P. V. Cherian, Chairman, Legislative Council, presided.

your bodily dirt, you are likely to get disease germs on your body, if you are to use the water course. If the water is ingested you are also liable to get intestinal disorders. Again in a cinema house or school room or in a bus or train, one has to sit beside unknown persons. If those persons smoke or sneeze close to your body they will be transmitting the disease germs of Tuberculosis or cold to you if they are suffering from those diseases. Coffee houses are also sources of spread of diseases as cups, saucers and plates are common for all people whether healthy or sick. Thus one gets disease either through direct contact with the infected persons or through indirect contact by means of contaminated articles including floors, food, clothing, utensils, air and by arthropod and other animal vectors through bites.

Co-exist happily or Co-Suffer.

Hence vital problems affecting human health cannot be solved by individual efforts alone and public health work is essentially a team work based on human and natural sciences. The moral is, an individual by oneself cannot isolate himself and lead a healthy life in this modern world in the midst of a community and the community as a whole either "co-exist" healthily and happily or co-suffer. A true public health service not only protects the health of the people as a whole but also gets the people themselves to participate in the protection of community health. The Public Health Department is essentially a common agent for all people. It guards zealously your health from invasion of disease germs. To succeed in its efforts it needs the active participation and co-operation of the community. The Department coordinates and enforces the work expected from each individual as a citizen. The state of healthiness or otherwise of the people, will naturally depend upon the extent of participation of the community in its own health programme. "Health is wealth" and physical prowess is the pre-requisite for every other kind of development. The community can participate in its own health programme through several ways. In our day-to-day life and activity certain standards of ethics and behaviour are prescribed and there is community sanction behind all these actions. In the same way a community has to set its own health standards

and act according to it. Once a standard is set and accepted by a community action will necessarily follow. For example primary vaccination and routine periodical re-vaccination if accepted as a protective health measure by all communities, will eliminate small-pox completely from society. This does not cost anything to the community but it implies active participation in the programme organized by the Public Health Department. The participation may be through Gram Arogya Sanghs, organized for the protection of the health of the community. The Gram Arogya Sanghs should have its own President and Secretary and should meet periodically. One of its essential functions should be the study of the community health needs. It should raise resources and communicate with local Public Health Department on all health matters. Sanitary agents and public health workers should be appointed from among their members. The agents should initiate a dynamic health education programme. The programme should not only give information regarding health protective measures but should also explain why these measures are important for the health of the community. They should also create a desire for action amongst the people and demonstrate methods of doing things. The practical demonstration and the satisfaction derived from such action should stimulate interest and passion for further action. The health activity of a community could also be stimulated by the formation of Parent-Teachers Association. The Teachers will guide the parents on health matters.

What the Health Department does for you.

The initial instruction for the implementation of the above programmes will be given to you by the local officials of the Public Health Department. In this connection you will be interested to know what the Public Health Department does for you. It protects your water-supply. It advises on construction and maintenance of sanitary wells and water system. It safeguards waste disposal. Advice on construction and maintenance of septic tanks and other means of waste disposal is given. It works with producers of food and milk supplies, to assure safety for you, the consumer. Spurious admixture with essential articles of food, drugs and beverages such as milk, milk

products, tea and oils are prevented by periodic sampling from sellers. It arranges distribution of free milk to growing children. It inspects lodging houses, cinema houses, coffee hotels, etc., to protect the health of those using them. It assists in insect and rodent control. It is carrying on a ceaseless campaign against malaria and plague. It protects yourself and your children against small-pox, cholera, tuberculosis and typhoid fevers by immunization. It investigates epidemics of communicable diseases and supervises control measures. Your Health Department works with your physicians. It provides laboratory services and distributes biologic products and drugs free, for control of diseases. Your Health Department also serves mothers and children. It helps expectant mothers to secure regular medical supervision and to learn how to take care of herself and her baby. Free delivery is conducted in the homes. It is a ready source of information and educational matters of all sorts on child health including nutrition, are given free. It provides speakers, pamphlets, motion picture films and exhibits for better health. Your Health Department works with your schools. It assists parents, school personnel and boys and girls in providing health examination for pupils and in securing correction of defects. It helps school administration in maintaining a healthful environment. It works with school, home and all community agencies to make the total school programme, for all boys and girls, a learning experience in good living. It is in short the clearing house where all the resources of the community are focussed, on making possible healthier and happier lives for all the people.

What we should do.

Some of the above health measures require material and labour for their execution and if free labour can be provided by the community it would greatly minimise cost and would accelerate the work. When Government has to provide only material and technical guidance, it can effect more improvements with the same financial resources. Safe water-supply, sanitary latrines and malaria control are urgent problems in most of our areas. The labour required for the construction of tube wells, dug wells and bore hole latrines represents about half the total cost. Mosquito control require the

(Continued on page 31)

Temple Architecture and Renovation : A Warning

It is a matter for gratification that the Madras Government have launched a State-wide programme of temple renovation work. A sum of Rs. 2 lakhs has been provided for the purpose in the last year's budget and again a lakh of rupees this year. From out of this fund, State grants are given to needy temples for renovation.

Temples are treasure-houses for our ancient art and culture, especially in the South. They are our national treasures and are to be preserved for our posterity. It is a welcome move that the Government have come forward to help religious institutions in the preservation of temple architecture. But a note of warning is necessary in this connection, because in the name of renovations untold vandalism is being committed in several places. The question of scientific renovation presents a critical problem and it has to be solved, should we care to conserve our religious monuments.

The common defects in renovations are raising buildings for commercial purposes, converting temple approaches into bazaars, using of temple gopuras and mandapas as electric posts and godowns respectively marring their beauty and grandeur, tampering with features of archaeological interest, melting or throwing away broken ancient icons and sculptures, indiscriminate white or colour washing and allowing oil incrustations over fine sculptured panels and figures, making additions and alterations in styles which do not merge with the original style, renovating vimanams and gopuras in faulty ways, and the like. I had occasion to refer to some of these defects on the floor of the Legislative Council. The remedy for stopping these defects is simple. Any kind of work in temples must be executed only by trained *stapatis* under the direction of specially qualified engineers well versed in our sacred architecture and also in South Indian archaeology. Necessary provision for enforcing this should be made in the laws of the State.

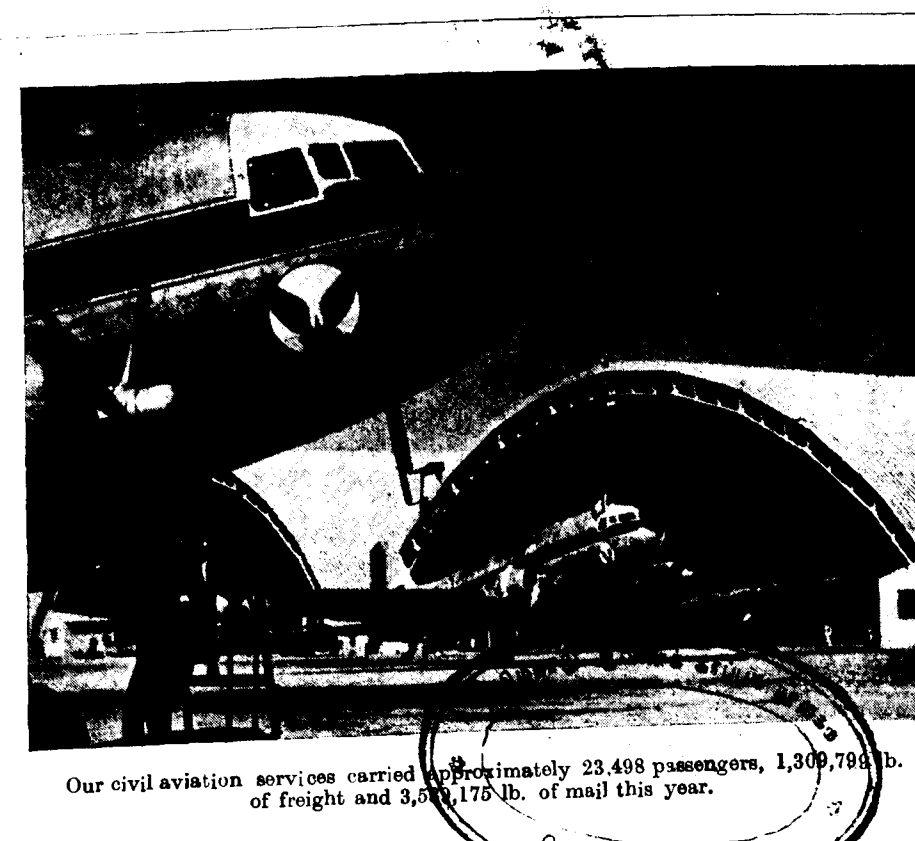
With the State grant now coming in handy, several renovation works have been taken up in different parts of our

State. Public donations for the purpose are also an encouraging feature. One such temple under renovation with State help was visited by our Minister for Religious Endowments the other day. He was particularly anxious to see the technique of modern renovation work. Tirupputkuzhi, the place which I refer to is a sacred Vaishnava Kshetra near Kancheepuram, the

By Sri T. PURUSHOTHAM, M.L.C.

ancient capital of the Pallavas. The temple there being a poor one, the renovation works are planned to be carried out in the most effective and economical way and on strict lines of preservation, conservation and restoration and at the same time employing the most modern engineering methods. The renovation work was inaugurated by Sri M. Baktavatsalam, Minister for Agriculture.

The front gopuram is very dilapidated. A number of its lintels and beams have cracked. In the rear side of the temple, the whole of the west Patti-Mandapam is leaning forward with heavy cut-stone roof slabs coming out of their bearings. These are enough to frighten any modern engineer; but knowing fully well how these works were executed in olden days, effective remedies based on modern engineering are proposed to be employed—for example: the cracks in the lintels and beams are to be reinforced with suitable steel and packed up to make each one a monolithic R.C.C. beam. All big cracks and crevices in the inside of the gopuram are to be gunnited. The leaning mandapam in the rear is proposed to be retained and improved by suitable R.C.C. works. The other ancient works in the temple are to be repaired and restored to their original condition keeping in view the ideal that the architectural and archaeological features are not in any way interfered with. This ideal should be there in all these renovation works.



Our civil aviation services carried approximately 23,498 passengers, 1,309,798 lb. of freight and 3,500,175 lb. of mail this year.

A.I.R. Tiruchirappalli

Rural Programmes for November 1956

Thursday, 1st November 1956—
Farm Forum : Discussion
Seenippattasu : Musical feature
Market rates and water level readings
Topical discussion ; weather report

Friday, 2nd November 1956—
Nilachappadu : Sketch
Pattai Kelungal (Songs on Five-Year Plan)
Grama Patasalaiyil : Nanmanikadigai : Exposition
Market rates and water level readings
Topical discussion ; weather report

Saturday, 3rd November 1956—
Sakuntalai : Play
'Women's Welfare in Madras State' :
Talk in Tamil arranged by the
Department of Women's Welfare,
Madras.

Saturday, 3rd November 1956—*cont.*
Weekly review of market rates
Market rates and water level readings
Topical discussion ; weather report

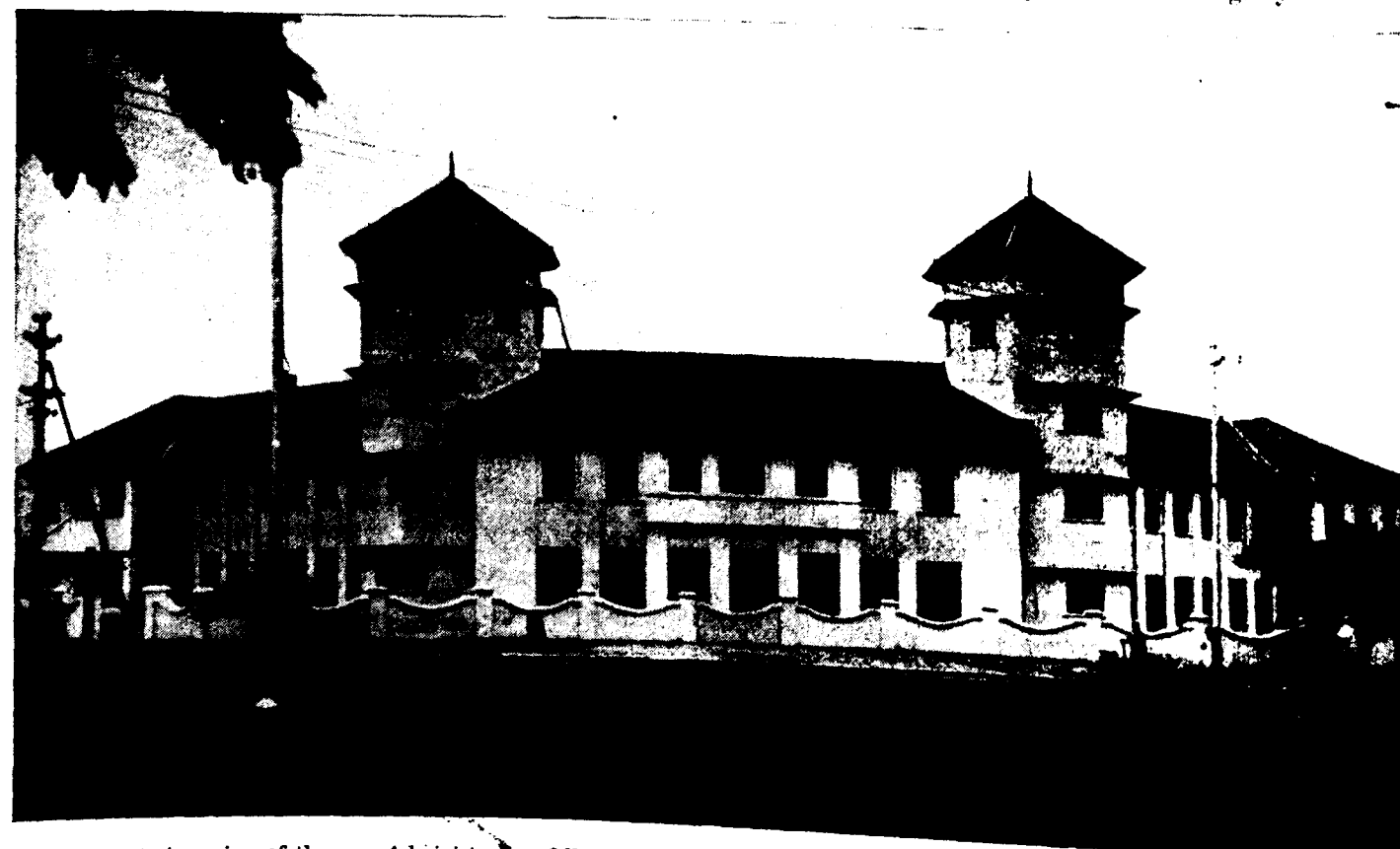
Sunday, 4th November 1956—
Paruthiyai Thakkum Puchigal :
Discussion
Grama Kalakshepa Mandapathil :
Kannappa Nayanar : Discourse by
A. S. Ramakrishnan.
Market rates and water level readings
Topical discussion ; weather report

Monday, 5th November 1956—
C. R. Das : Feature
Folk Art : Karaha Attam
Market rates and water level readings
Topical discussion ; weather report

Tuesday, 6th November 1956—
Farm Forum : Discussion—Parti-
cipant : B. A. Subbian.
Gnana Chuvadi : Isai Nigazhchi
Thozhil Nanayam (2) Thangavelai
Muthuswami : Serial skit.
Market rates and water level readings
Topical discussion ; weather report

Wednesday, 7th November 1956—
Listeners' Letters
Poocharam : Songs on Lord Buddha
Araichikkoodam (The latest in
research) : Discussion on subjects
of interest and use to farmers.
Market rates and water level readings
Topical discussion ; weather report

Thursday, 8th November 1956—
Farm Forum : Discussion—Parti-
cipant : N. Mahalinga Iyer.



An exterior view of the new Administrative Office of the Cochin Customs Department, which was formally opened by Shri Arun Chandra Guha, Union Minister for Revenue and Defence Expenditure, on September 29. The Office is situated at the northern end of Willingdon Island overlooking Ernakulam Town on the east and Fort Cochin on the west across the blue lagoons.

Thursday, 8th November 1956—*cont.*
Folk Ballad : Raja Desingu—Part V
Namadu Dittam (5) Village and Small
Industries : Discussion.
Market rates and water level readings
Topical discussion ; weather report

Friday, 9th November 1956—
Bhoomidanam : Feature
Irulil Oli : Serial feature on Gandhiji's
life by Turaivan.
'Peran Thirtha Pagaimai' : Play by
S. Shyamala Devi.
Market rates and water level readings
Topical discussion ; weather report

Saturday, 10th November 1956—
Kathaigal Solli : Song
The Adult Literacy Class : Tiruk-
kural—Pugazh (Kural Nos. 237
and 238).

Tannaimarundu : Song
Kashmir : Gardens—Discussion
Weekly review of market rates
Market rates and water level readings
Topical discussion ; weather report

Sunday, 11th November 1956—
Siruthaniya Abhiyiridhi : Discussion
Varna mettu : Folk tunes
Kozhippannai : Skit
Market rates and water level readings
Topical discussion and weather report

Monday 12th November 1956—
Oil cakes for cattle : Discussion
Folk Art : Lavani
Market rates and water level readings
Topical discussion ; weather report

Tuesday, 13th November 1956—
Farm Forum : Discussion—Parti-
cipant : D. A. Sivasubramania Pillai.
Folk songs
Engal kalathil (3) Sangitam Krishna-
swami Serial skit
Market rates and water level readings
Topical discussion ; weather report

Wednesday, 14th November 1956—
Blood pressure : Discussion
Folk Art : Kaichilambu Kacheri :
Participants by K. C. Ekambaram
and K. T. Tirukalathi.
Gramapattum katchiyum
Market rates and water level
readings
Topical discussion ; weather report

Thursday, 15th November 1956—
Farm Forum : Discussion—Parti-
cipant : A. Natarajan
Folk Ballad : Raja Desingu—Part
IV

Namadu Dittam (6) Prohibition :
Discussion
Market rates and water level read-
ings
Topical discussion ; weather report

Friday, 16th November 1956—
Ani Alangaram (5) Jadai Billa—
Musical feature
The Village Welfare Association :
Discussion

Kali Vakku : Play
Market rates and water level
readings
Topical discussion ; weather report

Saturday, 17th November 1956—
Villinaai Otha Puruvam : Song
The Adult Literacy Class : Tirukku-
ral—Pugazh (Kural Nos. 239 and
240)

Sudantira Suriyan : Song
'Guide to mothers' : Talk in Tamil
arranged by the Director of Medical
Services, Madras.

Weekly review of market rates
Market rates and water level read-
ings
Topical discussion ; weather report

Sunday, 18th November 1956—
Payarugal Patrakurai : Discussion
Sudar Oli : Feature
Maganwadi Choola : Discussion
Market rates and water level readings
Topical discussion ; weather report

Monday, 19th November 1956—
Lice in Poultry : Discussion
Folk Art : Kuravan Kurathi
darkkam

Market rates and water level read-
ings
Topical discussion ; weather report

Tuesday, 20th November 1956—
Farm Forum : Discussion
Gnana chuvadi : Isai Nigazhchi
Illaracholaiyil (2) Puliym Pasu-
vum—Serial skit

Market rates and water level read-
ings
Topical discussion ; weather report

Wednesday, 21st November 1956—
Listeners' Letters
Poocharam : Songs on Lord Buddha
Indu Pattai Kettanayya ?
Market rates and water level read-
ings

Topical discussion ; weather report

Thursday, 22nd November 1956—
Farm Forum : Discussion
Folk Ballad : Raja Desingu—Part
VII

Namadu Dittam (7) Basic Education :
Discussion
Market rates and water level readings
Topical discussion ; weather report

Friday, 23rd November 1956—
Folk song lesson
Irulil Oli : Serial feature on Gandhi-
ji's life
The Village Women's Forum : Dis-
cussion

Friday, 23rd November 1956—*cont.*
Ammanai
Market rates and water level read-
ings
Topical discussion ; weather report

Saturday, 24th November 1956—
Thenmalarcholaiyile : Song
The Adult Literacy Class : Turuk-
kural—Aruludaimai (Kural Nos.
241 and 242)

Gramangal valamperave : Song
Radio Interview : Karikai virpavar—
Bheti

Weekly review of market rates
Market rates and water level read-
ings
Topical discussion ; weather report

Sunday, 25th November 1956—
Grama Panchayat : Maram Vettina
Vazhakku : Feature by N. Vasudev
Varna Mettu : Folk tunes
Market rates and water level read-
ings

Topical discussion ; weather report

Monday, 26th November 1956—
The fish-pond : Discussion
Grama Nataka Sabaiyil : Parimala-
kanthi : Play by 'Maran'
Market rates and water level read-
ings

Topical discussion ; weather report

Tuesday, 27th November 1956—
Farm Forum : Discussion
Folk songs
Kelikoothu : Play
Market rates and water level read-
ings

Topical discussion ; weather report

Wednesday, 28th November 1956—
Festivals and Epidemics : Discus-
sion
Folk Art : Chakkai Attam

Questions on the air : Discussion
on subjects of rural interest
specially those relating to Five-
Year Plan.

Market rates and water level
readings.
Topical discussion ; weather report

Thursday, 29th November 1956—
Farm Forum : Discussion
Folk Ballad : Raja Desingu—Part
VIII

Namadu Dittam (8) Tribal Welfare :
Discussion
Market rates and water level read-
ings
Topical discussion ; weather report

Friday, 30th November 1956—
Sothidappuli : Play
Decimal coinage : Discussion
Onre Kulam : Feature
Market rates and water level readings
Topical discussion ; weather report

Book Reviews

MY DEAR CHILD

EDITED by ALICE M. BARNES
Navajivan Publishing House,
Ahmedabad.

Price : Rupee one and annas eight.

The part that letters play in Gandhian literature is too significant to be missed, too inspiring to be ignored and too vast to be traversed in the twinkling of an eye. The book gives far more than the fascinating title promises. It is not merely a collection of casual epistolary writings. These letters were written mostly in the years 1917 to 1932 by Gandhiji to Esther Faering, who first came to South India in 1916 as a member of the staff of the Danish Missionary Society, and who had the opportunity to spend a few days at the Sabarmati Asram with Gandhiji. Within a short space of time, she developed into an ardent admirer of the Mahatma, whose influence on her was continual and profound.

These one-hundred and twenty-nine letters (and the twelve addressed to the children of this lady) deal with personal, domestic, national and international problems, and though laconic, afford us deep glimpses of the spiritual aspect of the Mahatma's life. As is rightly observed in the preface "his love for the individual, his great affection for and understanding of little children, his deeply religious mind—all are revealed in these letters."

Srimathi Esther Menon richly deserves our thanks for having made this priceless and edifying treasure available to the world at large. An informative foreword by Dr. D. S. Ramachandra Rao and a very good introduction by the editor enhance the value of this fine publication.

GANDHI AND MARX

By K. G. MUSHRUWALA
Navajivan Publishing House,
Ahmedabad.

Price : One rupee and eight annas.

In the present world, which is seriously engaged in the stupendous task of rebuilding itself, nothing can be a more engaging study to us than that of a comparison between the ideologies of Gandhi, the great soul and Marx the great thinker. The difference between Gandhi and Marx is too profound

to be expressed by simple equations. It calls for detailed, critical examination and elucidation, which Mushruwala sets about to accomplish within a compass of hundred and odd pages of the book entitled "Gandhi and Marx". There was, however, a common point, as the author tells us, between the two protagonists—viz., "the extreme concern of both for the suppressed and the oppressed, the resourceless and the ignorant, the dumb and starving section of humanity."

Marx was a monobasist like Gandhiji, but according to the latter, the basic principle is life and not matter. To Marx's mind, it was just the reverse. To put it briefly, Gandhism is incompatible with communism. The difference between Gandhism and Marxism is indeed vast, and vaster still is it between Gandhism and 'unbridled capitalistic feudal and caste orders.'

Mr. Mushruwala has dwelt at length on that difference and has dealt with most of the salient and noteworthy aspects of both the Gandhian and the Marxian doctrines. He has, though briefly, explicated the Gandhian way of looking at life and its problems, and has reasonably deduced pertinent conclusions like the one that the difference between Gandhi and Marx can hardly be expressed by such simple equations as "Gandhism is communism minus violence" or "Gandhism is Communism plus God."

The book written in chaste, elegant and effortless style, gives a succinct but enlightening account of Gandhism and Marxism, and the similarities and dissimilarities between the two. It has useful appendices and index and is embellished by a lengthy introduction by Vinobha Bhave (thirty four pages) which is scintillating with erudition and a dexterity to delve threadbare into the theme with dispassionate interest.

A COMPASS FOR CIVILIZATION

By RICHARD B. GREGG
Navajivan Publishing House,
Ahmedabad.

Price : Rupees Three.

Man does not live by bread alone. There is a constant and unquenchable thirst in him for something, in the absence of which life is incomplete

and meaningless to him. He wants to know, understand, and import a meaning to his life. This thirst is eternal and universal, and attempts to slake it are being made everywhere with unabated ardour. Without a certain pattern or order of thoughts and feelings and meanings by which human beings are sustained, life does not make sense or any lasting value.

The book "A Compass for Civilization" is an elaborate attempt to discover such a pattern. It is divided into two parts, of which the first is broadly entitled 'A frame of understanding' and the second one, 'The teachings of Jesus'.

In the first part the author begins with explaining what assumptions are, and the no mean part they play in the acquisition of knowledge. Such intriguing and vexed topics as what is real, the nature of the self, symbols and ritual, and subjects inseparably allied with them are treated in detail. He discusses a point of view towards life and seeks an understanding of reality and of ways of approaching it and succinctly touches upon the deeply disturbed and distressing state in which the individuals and the nations find themselves entangled to-day. Having done this, the author proceeds to tell us what our compass and guide for civilization should be.

The second section of the book is devoted to a discussion of the teachings of Jesus—"Without much discussing what is generally called Christianity, the teachings and doctrines of the Churches"—In the course of his delineation of the nature of the Kingdom of God, Mr. Gregg points out that the kingdom of God does not refer to a present or future political system or ordering of society. The implication of "His righteousness", according to him, is that "society must be controlled by spiritual principles and that all institutions, their activities and mutual relationships and all the details of social, economic and political life should have a metaphysical basis". And he has briefly discussed the way to do this.

Although the author, in his introduction, says that he owes much of the book to the thoughts of sensitive and wise people of many cultures and many epochs, his own contribution is immense. In this book wherein ideas

(Continued on page 32)

History of the Scientific . . .

(Continued from page 19)

Since this is a universal history, it must obviously be a product of international co-operation, and present, through qualified exponents, the main tendencies of all major philosophical and religious currents of thought. More than a hundred and fifty correspondents in some fifty countries are working in collaboration with the Commission responsible for the undertaking. One or two individual historians, who will make use of the material provided by a large number of specialists, have been selected to edit each of the volumes. The whole production will then be made ready for publication by Professor Ralph H. Turner, Yale University, before coming before the Commission for final approval. When the History appears in print, it will be published in English, French and Spanish, followed in all probability by a shortened version in a single volume. Editorial responsibility rests entirely with the International Commission.

Quarterly Journal.

It is interesting to note that in the course of its preparations for this work the Commission has been led to publish a quarterly journal, the "Journal of World History" under the editorship of Professor Lucien Febvre, Institut de France. This journal publishes papers produced by various contributors to the History, and working documents as well as the comments and criticisms that follow them. The welcome the journal has found among learned societies, in university circles, and with the general public is abundant evidence of its success. The widespread discussion Unesco is anxious to see on the various subjects handled in the "History of the Scientific and Cultural Development of Mankind" has thus already begun.

Continuation of the work on the History figures as an important item in the cultural activities section of Unesco's draft programme for 1957-58 which will be before the coming General Conference of the Organisation in New Delhi next November.

Rural Electrification

Villages Electrified during August 1956

Serial number and name of village.	Taluk.	District.
(1)	(2)	(3)
Pykara Electricity System.		
1 Chinnakoduveri	Gobichettipalayam.	Coimbatore.
2 Periakoduveri	Do.	Do.
3 Odderpalayam	Do.	Do.
4 Tahiyur	Do.	Do.
5 Chinnarayampalayam	Do.	Do.
6 Puttappanaickenpalayam	Do.	Do.
7 Ellur	Do.	Do.
8 Venkatapuram	Do.	Do.
9 Kaliyur	Do.	Do.
10 Giddampalayam	Palladam	Do.
11 Vadugapalayam	Do.	Do.
12 Ammapalayam	Erode	Do.
13 Sadayampatti	Do.	Do.
14 Periakarakampalayam	Do.	Do.
15 Sakkilinatham	Do.	Do.
16 Velliampatty	Do.	Do.
17 Karinampatty	Do.	Do.
18 Kattupati	Do.	Do.
19 Thatipalayam	Avanashi	Do.
20 Sangampalayam	Do.	Do.
21 Attikatupalayam	Do.	Do.
22 Akathur	Do.	Do.
23 Venkatapuram	Do.	Do.
24 Bommanaikampalayam	Gobichettipalayam.	Do.
25 Pudukkarai	Do.	Do.
26 Thotipalayam	Do.	Do.
27 Kongarapalayam	Do.	Do.
28 Koilpalayampudur	Do.	Do.
29 Thairpallainpudur	Do.	Do.
30 Velliampalayam	Do.	Do.
31 Pallapalayam	Udamalpet	Do.
32 Kariyagoundenpalayam	Gobichettipalayam.	Do.
33 Venkatagoundenpudur	Do.	Do.
34 Maranapalayam	Do.	Do.
35 Kandisalai	Do.	Do.
36 Kavalipalayam	Do.	Do.
37 Koppampalayam	Do.	Do.
38 Kondampatti	Pollachi	Do.
39 Manakampatti	Do.	Do.
40 Kallipattipudur	Do.	Do.
41 Sithervu	Dindigul	Madurai.
42 Nallur	Do.	Do.
43 Kondamanaikenpalayam	Do.	Do.
44 Kuppanaickenpatti	Do.	Do.
45 Devarappampatti	Do.	Do.
46 Chinnagoundenpatti	Do.	Do.
47 Old Batlagundu	Nilakottai	Do.
48 Oddapalayam	Dharapuram	Coimbatore.
49 Kurumbapatti	Palani	Madurai.
50 Muthalapuram	Periakulam	Do.
51 Panamathivampatti	Do.	Do.
52 Kondappagoundenvalasu	Palani	Do.
53 Nathigoundenpudur	Coimbatore	Coimbatore.

Serial number and name of villages.	Taluk.	District.
(1)	(2)	(3)

Pykara Electricity System, Coimbatore—cont.

54 Panambar	Mangalore ..	South Kanara.
55 Baikambadi	Do. ..	Do.
56 Erimayar	Palghat ..	Malabar.
57 Kothanakkarai	Avanashi ..	Coimbatore.
58 Poosaripalayam	Do. ..	Do.
59 Pasukkuttai	Avanashi ..	Do.
60 Thoppampattianur	Do. ..	Do.
61 Srinivasapuram	Do. ..	Do.
62 Pothampalayam	Palladam ..	Do.
63 Kasinanjaigoundenpudur	Do. ..	Do.
64 Thoraihatti	Ooty ..	Nilgiris.
65 Hosalhatti	Do. ..	Do.
66 Oormila	Do. ..	Do.
67 Nillimand	Do. ..	Do.
68 Kolacombai	Do. ..	Do.
69 Do.	Coonoor ..	Do.
70 Manjathalai	Do. ..	Do.
71 Thannirpandalpalayam	Avanashi ..	Coimbatore.
72 Pachandy	Mangalore ..	South Kanara.
73 Paduseddi	Do. ..	Do.
74 Edayarpalayam	Coimbatore ..	Coimbatore.
75 Uppatti	Ooty ..	Nilgiris.

Mettur Electricity System.

1 Mannampalli	Karur ..	Tiruchirappalli.
2 Nerur North	Do. ..	Do.
3 Semangalam	Tirukoilur ..	South Arcot.
4 Chinnasevajali	Do. ..	Do.
5 Anathur	Do. ..	Do.
6 Kilthanialampatty	Do. ..	Do.
7 Elandampatty	Cuddalore ..	Do.
8 Alachigudi	Vridhachalam ..	Do.
9 Ballakurichi	Tiruchengode ..	Salem.
10 Shenbagamadevi	Do. ..	Do.
11 Mangalam	Do. ..	Do.
12 Venkatesapuri	Do. ..	Do.
13 Mallasamudram East	Do. ..	Do.
14 Pavalthanur	Omalar ..	Do.
15 Keerapampadi	Do. ..	Do.
16 Nathamedu	Namakkal ..	Do.
17 Vadakadu	Salem ..	Do.
18 Agrahara Nattarmangalam	Rasipuram ..	Do.
19 Ariyali	Arni ..	North Arcot.
20 Ananthapuram	Do. ..	Do.
21 Pallithangal	Do. ..	Do.
22 Painkinar	Cheyyar ..	Do.
23 Irungal	Do. ..	Do.
24 Mamandur	Arkonam ..	Do.
25 Reddivalam	Do. ..	Do.
26 Agavalam	Do. ..	Do.
27 Nellorepet	Do. ..	Do.
28 Thenmabakkam	Do. ..	Do.
29 Karungalai	Vellore ..	Do.
30 Thallapalli	Do. ..	Do.
31 Agaram	Do. ..	Do.

(Continued from page 8.)

officer has since completed his work and has sent his report. His recommendations are being examined by the Government. The question as to how the full benefits of the Industrial Disputes Act can be extended to the workers in the beedi industry is also receiving attention.

One Industry—One Union.

When we met last, I drew your attention particularly to the question of rival labour unions. The existence of such unions in the same industry is detrimental to the interests of workers and this was also the general opinion of the members expressed at the last meeting. To meet this problem a draft bill The Madras Recognition of Trade Unions Bill—has been prepared and this has been included specially in the agenda of this meeting. The bill provides for the recognition of a representative trade union for each establishment or for a specified industry in a specified local area for the purpose of bargaining collectively with the managements on matters concerning their employees. A copy of the Bill has been circulated to you already. I am sure that your views on the draft bill will be of very great help in its further consideration.

Under the Colombo Plan, training facilities are afforded in industrially advanced countries to the officers of the State and Central Governments. One of the Factory Inspectors from this State was deputed under the above Plan for training in Factory Inspection in the United Kingdom.

I may also mention here that I had the privilege of leading the Indian Delegation to the 39th Session of the International Labour Conference held at Geneva in June 1956. Certain important subjects such as vocational training in agriculture, welfare facilities for workers, forced labour, weekly rest in commerce and offices were discussed at the conference.

The reorganization of States will take effect from the 1st November 1956. This is, therefore, the last meeting at which our friends from the Malabar and South Kanara districts will be present in our midst. We will be losing their valuable advice in our future deliberations. We wish them every success in their new States.

(Continued from page 5)

of the Project is that the main work of the dam construction, pick-up weir and excavation of Main Canal and distributory systems, have all been taken up simultaneously together with the preliminaries like construction of buildings for officers and staff, construction of the road and the bridge below the dam, etc. Usually these items take about a year. In this case, by combining the main work with the preliminaries, nearly a year has been saved in the total construction period. And it is hoped to complete the Project in all respects well ahead of the scheduled date of December 1957.

The project is estimated to cost Rs. 289 lakhs. Out of this Rs. 100 lakhs have already been spent since the inception of the works in October 1954. The major portion of the Project is scheduled to come up before the 1957 irrigation season when the semi-arid North and South Arcot districts, which will soon start receiving irrigation supplies with the completion of the anicut, will reap all the benefits of the project. The development of the full ayacut with a total additional yield of 8,000 tons of rice will contribute probably to the rise in employment and earning power of the local population.

—Bhagirath.

(Continued from page 24)

actual services of a large number of men for spraying insect killing drugs. You could extend your services and co-operation to accomplish valuable and beneficial schemes.

Health is the basis for all other developments, ethical, economic, artistic and spiritual. Health is a positive state of physical, mental, social and economic well being. “*Noyatra Vashvu Kuraivatra Selvam.*” The Public Health Department is genuinely interested in your welfare. With communities own efforts and with “learning situation” arranged by the Public Health Department, it is possible to change attitudes and practices relating to personal, family and community health and to create better interest towards social and preventive aspects of public health. It is up to the community to approach the problem with faith in thought, wisdom in words, courage in deeds and service in life to make India healthy, happy and prosperous.

Serial number and name of villages.	Taluk.	District.
(1)	(2)	(3)

Mettur Electricity System—cont.

32 Chetpet	Polur ..	North Arcot.
33 Palampet	Do. ..	Do.
34 Kapilambadi	Gingee ..	South Arcot.
35 Agaram	Chengam ..	North Arcot.
36 Pallavalli	Tirupathur ..	Do.

Papanasam Electricity System.

1 Nagamalai—Pudukottai	Madurai ..	Madurai.
2 Andarkottaram	Do. ..	Do.
3 Katsavanendal	Do. ..	Do.
4 Nakkalpatti	Tirumangalam ..	Do.
5 Madharai	Do. ..	Do.
6 Thummagundu	Do. ..	Do.
7 Katchaikatti	Nilakottai ..	Do.
8 Ramayanpatty, hamlet of Katchaikatti.	Do. ..	Do.
9 Arunachalapuram, hamlet of Pallapatty.	Do. ..	Do.
10 Kandappakottai, hamlet of Kullalakundu.	Do. ..	Ramanathapuram.
11 Muthulingapuram	Sattur ..	Do.
12 Athipatty	Do. ..	Do.
13 Govindanallur	Do. ..	Do.
14 Alagankulam	Ramanathapuram.	Do.
15 Athikulam—Sengulam	Do. ..	Tirunelveli
16 Pullukattuvalasai	Tenkasi ..	Do.
17 Iyyappanadampatty	Do. ..	Do.
18 Chettiyur	Do. ..	Do.
19 Panaiyadiipatti	Do. ..	Do.
20 Pananchandiyur	Do. ..	Do.
21 Vellumayeludanpatti	Do. ..	Do.
22 Madithrukkudayanur	Do. ..	Do.
23 Konavillai	Do. ..	Do.
24 Kottaiyur	Do. ..	Do.
25 Gurukkalnadam	Do. ..	Do.
26 Santhithope	Do. ..	Do.
27 Mellur	Do. ..	Do.
28 Chidambarapuram	Do. ..	Do.
29 Mangalapuram	Do. ..	Do.
30 Pudukudi	Do. ..	Do.
31 Achampatti	Do. ..	Do.
32 Kambaneri	Do. ..	Do.
33 Karadikulam	Do. ..	Do.
34 Mylappapuram	Ambasamudram ..	Do.
35 Vellur Kasba	Srivaikuntam ..	Do.
36 Mavidupannai	Tiruchendur. ..	Do.

Madras Electricity System.

1 Alagusamudram	Chingleput ..	Chingleput.
2 Chunampet	Madurantakam ..	Do.
3 Ellappanaickenpettai	Tiruvallur ..	Do.
4 Erayur	Do. ..	Do.
5 Indalur	Madurantakam ..	Do.
6 Kadambur	Do. ..	Do.
7 Karunagaracheri	Sriperumbudur ..	Do.
8 Koduvalli	Tiruvallur ..	Do.
9 Madipakkam	Saidapet ..	Do.

MADRAS INFORMATION

32

Serial number and names of villages.	Taluk.	District.
(1)	(2)	(3)
<i>Madras Electricity System—cont.</i>		
10 Magaral	Tiruvallur ..	Chingleput.
11 Mettukuppam	Kancheepuram ..	Do.
12 Mogappair	Saidapet ..	Do.
13 Muthuvedu	Kancheepuram ..	Do.
14 Nandivaram	Saidapet ..	Do.
15 Pagalmedu	Tiruvallur ..	Do.
16 Pathur	Madurantakam ..	Do.
17 Perambakkam	Kancheepuram ..	Do.
18 Pudupattu	Madurantakam ..	Do.
19 Pudur	Tiruvallur ..	Do.
20 Pulipurakoil	Madurantakam ..	Do.
21 Ramancheri	Tiruvallur ..	Do.
22 Ramapuram	Do. ..	Do.
23 Sankarampadi	Arkonam ..	Do.
24 Sembakkam	Saidapet ..	Do.
25 Sembedu	Tiruvallur ..	Do.
26 Singaperumalkoil	Chingleput ..	Do.
27 Thandamedu	Tiruvallur ..	Do.
28 Thenneripattu	Madurantakam ..	Do.
29 Thottikalai	Tiruvallur ..	Do.
30 Tirupporur	Chingleput ..	Do.
31 Velacheri	Saidapet ..	Do.
32 Venkatapuram	Sriperumbudur ..	Do.
33 Vilanganoor	Madurantakam ..	Do.
34 Vishar	Kancheepuram ..	Do.
35 Vellivalam	Do. ..	Do.

Facts you must know

Tea consumption in India increased to 206 million lb. in 1955-56 compared with 183 million lb. on 1954-55.

Indian tobacco is exported to 32 countries and earns a foreign exchange worth about Rs. 12 crores a year.

Loans amounting to about Rs. 6.91 crores were sanctioned by the Industrial Finance Corporation during the period April 1955 to August 1956.

(Continued from page 28)

and thoughts are so well dovetailed, a sense of logic and clear thinking is throughout perceptible.

Mr. Gregg does not claim to persuade any one to his beliefs but despite this disclaimer, portions where the reader feels like agreeing with his views are not few. Some of his opinions may seem rather dogmatic, but they do not in any way dull the brightness of this highly thought-provoking and excellent contribution towards philosophic investigation.

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32A



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Bhav
now is
walking
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Singam
petta
in Coim
batore
District.



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It's not
how much
but **WHAT**
he eats
that
matters



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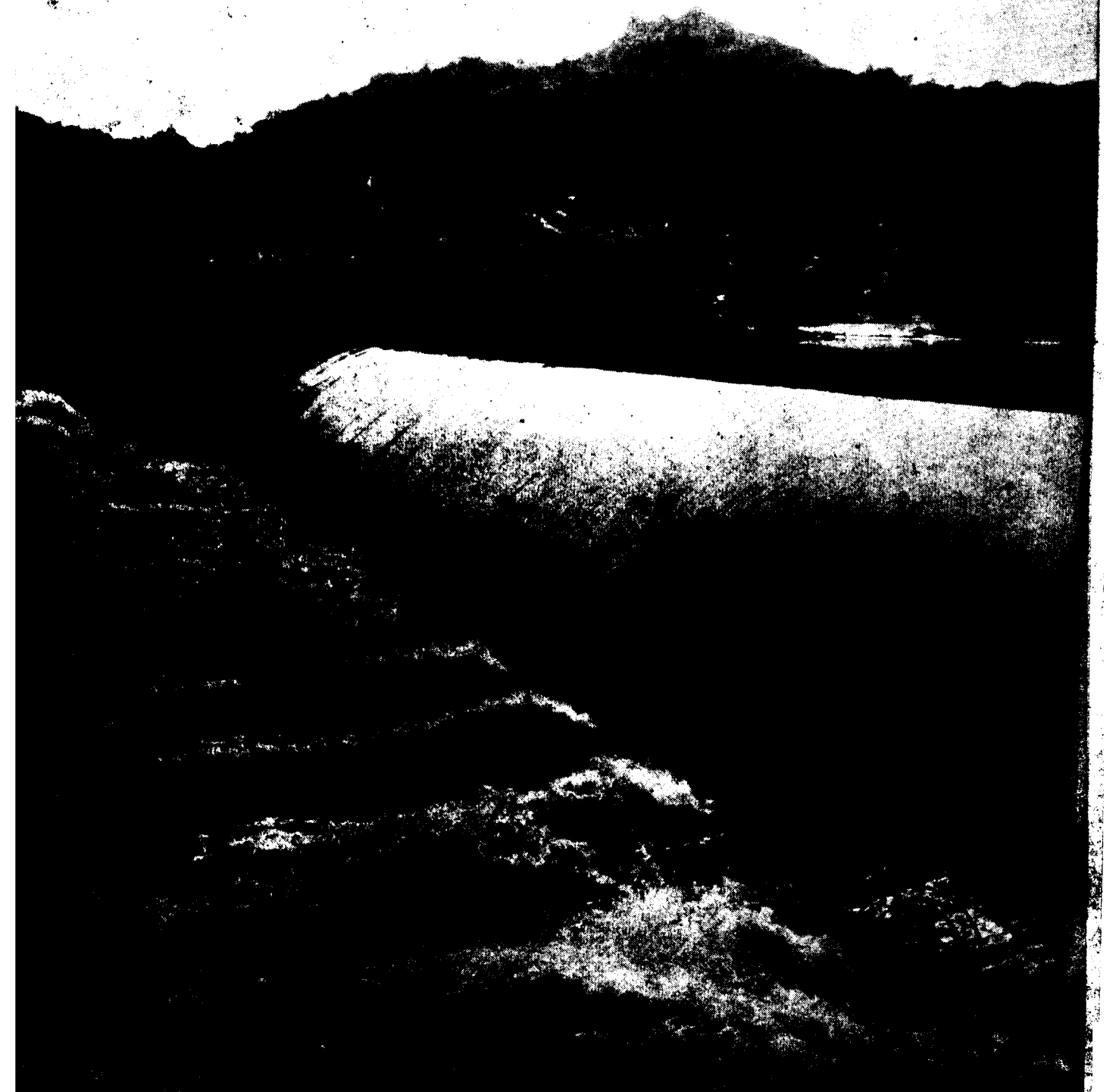
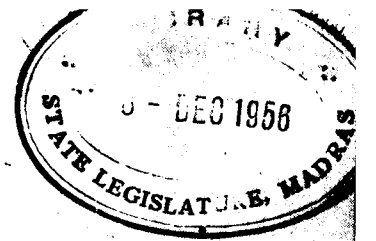
**GOVERNMENT OIL FACTORY,
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A DIVISION OF THE DEPARTMENT
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MADRAS Information





Madras Information



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"WE SEEK TO SERVE AND NOT TO COMPETE"

December 1956

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Cover Picture : Ponnaiar waters Rushing through Pick-up Canal of Sathanur Project.
Legend of fourth inset page—

- (1) "Composition" in oils by R. Krishna Rao.
- (2) Life of Buddha Mural in oils by K. C. S. Paniker.
- (3) "Prayer Time" Plaster sculpture by S. Dhanapal.
- (4) Labourer in oils by T. Krishna Rao.
- (5) "Fibre Making" in oils by Shanti Shah.
- (6) "Sacred Hour" in oils by C. J. Anthony Das.

Madras City Milk Scheme

Towards Cheap and Wholesome Milk for the People

The question of reorganising the milk supplies of Madras City has been engaging the earnest attention of Government for some time now and many Expert Committees had been appointed by them from time to time to investigate and suggest ways and means for improving the same. According to the reports submitted by these Committees, a total quantity of about 230,000 lb. of milk is consumed daily in the city, of which about 160,000 or 69.6 per cent is produced from within the City and about 70,000 lb. or 30.4 per cent is imported from the surrounding villages. For the production of such a large quantity of milk within the City, a very large number of milch animals has to be maintained inside the City. The milk trade in the City is mostly in the hands of petty milkmen and as the City has no milk pocket nearby the milkmen are forced to keep their cattle within the City limits.

A vast majority of the milkmen live in rented houses and keep their cattle also in insanitary rented cattle sheds which do not have any moving space for them. The conditions in which the animals are housed and milk produced for sale hardly satisfy the standard of sanitation and animal husbandry. The

result is that not only the health of the cattle deteriorate but the health of the people living in the houses and in surrounding areas are injuriously affected on account of the dirty environment and the consequent prevalence of the fly menace and the

inadequate and insanitary disposal of sewage from the cattle sheds. Although the City Corporation has framed adequate rules regarding the maintenance of private cattle yards in the City, for some reason or other these rules are not strictly enforced. In congested



WEST GERMAN INSTITUTE TO BE SET

Following the West German Government's offer to establish an Institute of Higher Technology in India, a high power delegation led by their Education Minister visited India to choose the location for the proposed Institute. When the delegation visited Madras last month, Sri C. Subramaniam, Minister for Education, spared no pains to

areas like Triplicane and Georgetown where there is no open space, it is not possible to enforce the bye-laws that there should be no cattle shed within a prescribed distance from human habitations.

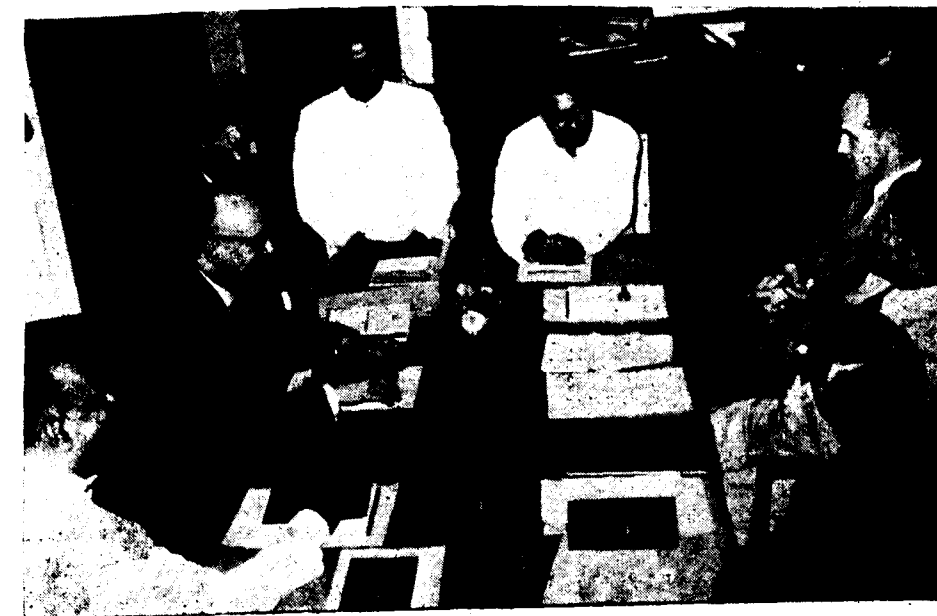
The milkmen usually purchase freshly calved animals of good quality. But facilities for salvaging dry animals being negligible, after the lactation is over the cattle are disposed of for small sums as the milkmen are unable to maintain the dry animals under the expensive conditions of the City. Not only the animals purchased by the

milkmen are spoiled by keeping them in stalls in the congested locations of the City, but their valuable calves also are got rid of at the earliest opportunity, as the milkmen consider them a liability. However the trade has to be maintained for which some 25,000 milch animals valued at more than a crore of rupees are imported annually. The prices of cattle fodder are also very high. To compensate the heavy expenditure incurred in maintaining the trade the milkmen sell milk at a higher rate or adulterating it before sale by adding water or reconstituted milk.



OF HIGHER TECHNOLOGY UP IN INDIA

impress the visitors with the claims of Madras, across conference table and dinner table. The delegation also visited the technological institutions in the City, including the M.I.T., Chromepet (top right) and the Central Leather Research Institute, Guindy (top left).



The experts have suggested that for the reorganisation of the milk supplies, the City cattle should be evacuated and settled with their owners in cattle colonies outside the City. Accordingly, the Director of Animal Husbandry put up the Madras Milk Scheme. This Scheme contemplates to evacuate all the cattle from the congested areas of the City and at the same time offers accommodation for about 4,000 milch animals of commercial standard with their owners in a cattle colony to be established in the outskirts of the City. Besides the City cattle there will be in the colony, a Government Dairy Farm Unit with 750 pure-bred cattle. For this purpose a 600-acre plot has been selected at Madhavaram village which is seven miles North-West of the City and within two miles from the Corporation Sewage Farm at Kodunganyur village. The site is at present lying mostly waste and the acquisition of the same for the cattle colony will not affect in any way the local agriculturists. On the other hand, the colony, when it functions, would provide enough work for the local labourers all the year round. Another area of 200 to 400 acres of land contiguous to the proposed site has also been proposed to be acquired for the expansion of the colony. The water availability on the colony has been found to be fairly satisfactory. Electricity could be tapped from the high tension main passing through the villages. The Health and Sanitary experts have also given their opinion that the

MADRAS INFORMATION

establishment of the cattle colony and the sewage farm at Madhavaram and Kodungayur respectively will not in any way affect the health of the people in the surrounding villages. It is also proposed to form a straight approach road branching off from the Northern Trunk Road from Moolakadai junction between the fifth and sixth miles to reach the southern limits of the colony.

Quarters for Milkmen

Milkmen owning 10 and more cattle will be provided with quarters in the colony. Buildings also would be constructed to accommodate the cattle. Provision has also been made at the colony for other amenities such as school, dispensary, shop, etc. Assured supply of water is essential for the colony for cleaning the sheds at least twice a day for drinking and washing of the cattle. For this purpose it is proposed to sink two wells, one at either end and connect them to a R.C.C. overhead tanks 50,000 gallons capacity in a central place. Necessary pump sets and net work of pipes will be prescribed for ensuring supply for the entire colony. Each house will be provided with a tap and F.O.H. Adequate drainage and facilities for making compost manure from the enormous quantity of dung that the cattle will excrete every day will also be provided in the colony.

The principle underlying such a comprehensive scheme as this is to increase the milk production so as to raise the present low per capita consumption and ensure that the consumers get pure and wholesome milk. Ensuring the purity of milk is an important aspect to be considered in any milk scheme. So whoever be the agency or agencies fixed for the collection of milk the entire quantity of milk brought into the City should be pooled, tested for quality, processed and distributed by Government. An efficient quality check can also be done before the milk is accepted and payment made according to the quantity. A central dairy will be established for this purpose in a central place for pooling all the milk imported into the City. It has been proposed to locate the dairy factory at Aminjikarai and a suitable place extending to 60 acres has been selected near the Indian Medical School Herbarium for the purpose.

A well-equipped central dairy has been assigned for keeping in view the

THE ARIYALUR TRAIN DISASTER MADRAS GRIEVES WITH THE BEREAVED

The Government have heard with deep regret that the down Tuticorin Express which left Madras on the night of November 22 met with a serious accident between Ariyalur and Kallagam Stations during the early hours of November 23. They have been extremely distressed to note that the death toll has mounted to about 145. Many passengers have also suffered injuries. Every effort is being made to rush succour to the accident spot especially to minimise the sufferings of the passengers as far as it lies within the hands of the authorities. Government extend their most sincere and heartfelt condolences to those who have been bereaved by this tragedy and sincerely hope for the speedy recovery and the restoration to full health of those who have suffered injuries.

present requirements and future expansion. The dairy will have in the first instance up-to-date plants and machinery capable of processing about 1.5 lakh lb. of milk per day. This capacity will be gradually increased to 3 lakhs lb. per day by installing additional machinery later on when sufficient milk is made available. The milk collected from the cattle colony and other sources on arrival at the central dairy will be subject to a quality central test. For this purpose, a well-equipped dairy laboratory capable of analysing 250 samples a day will be established in the dairy.

Government Dairy Farm

In addition to the City displaced cattle, the colony will maintain a Government stock of pure milk breeds, numbering 750, including milch and dry cattle. The stock will include scindies and buffaloes of Murrah and Mahsana or Sunti breeds. The occupation of the Government cattle will be subject to the same conditions applicable to the City cattle but a separate block of cattle-sheds will be set apart for them. The milk drawn from them will be sold to the Government Dairy for processing and distribution.

The proposal for the Government maintaining a stock of pure-bred cattle in the colony, is made with a view that not only it will supplement the existing low milk production, but it will also serve for raising pure-bred

bull calves for distributing to the surrounding areas for upgrading the village cattle. The cattle colony will maintain only the milch stock, their suckling calves and the nursing pasturage animals.

The weaned calves, both bulls and heifers and the dry animals will be maintained at the Government Dry Stock Farm proposed at Alamadi at a distance of about six miles from the cattle colony.

Government have now sanctioned an expenditure of Rs. 112.5 lakhs for the cattle colony and central dairy to be located at Madhavaram. The target of this scheme, which will be spread over a period of five years, is to colonise 3,250 City milk cattle and 750 Government owned pure-bred cattle with their followers. It is estimated that at the end of the fifth phase of the scheme some 150,000 lb. of milk will be handled at the colony, which would effect a profit of Rs. 4.7 lakhs.

Facts and Figures

There has been an increase of Rs. 112.12 crores in total foreign investments in India between 1948 and 1953.

The Indian Government railways lifted 114.05 million tons of goods in 1955-56—7.8 per cent more than in the previous year. Goods earnings during this period improved by Rupees 21.48 crores (or by 13.8 per cent) to Rs. 177.43 crores.

MADRAS INFORMATION

Significance of Gosamvardhana Day

The Gosamvardhana day is celebrated every year to bring home to people the correct appreciation of problems of cattle development through organizing and intensifying such measures as distribution of selected breeding bulls, mass inoculation of cattle against contagious diseases, segregation of unproductive stock to Gosadans, introduction of improved varieties of fodder seeds, and adoption of improved cattle husbandry practices. This year the celebrations were organized on a much wider scale and special emphasis was laid for their organization in rural areas through panchayats and other local bodies.

Key Village Scheme

The Gosamvardhana Week, this year, has a special significance. It is the first year of the Second Five-Year Plan. The development of animal husbandry and dairying has been given a greater importance in the Second Plan with a provision of Rs. 56 crores for the purpose. The Key Village Scheme for the development of cattle launched at the beginning of the First Plan is making satisfactory progress. The Scheme envisages a systematically planned method for the best utilization of superior germ-plasm obtained from improved stock by proper distribution throughout the country. The technique of artificial insemination is

adopted so as to enable the utilization of the available limited number of approved bulls to the maximum extent.

Contact with cultivator

Emphasis has, therefore, been laid on the necessity for close and constant contact with the cultivator who should increasingly realize that it is his own

problem for which co-operation of voluntary efforts and general support from the public are of utmost importance. It is only by intimate contact and correct approach that the problems and difficulties of the cattle owners can be understood and their confidence gained. It is in this context that the celebration of Gosamvardhana day assumes great importance.



Sri W. R. S. Saththianadhan making his Presidential speech. In the background is seen Dr. D. Pattabhiraman, Director of Animal Husbandry.



GOSAMVARDHANA DAY IN MADRAS: Mr. Gopal Pillay of Bommalier Street, Madras, the proud owner of the stud bull which won the first prize at the Madras Cattle Show on 10th November 1956 receiving the prize from Srimathi Saththianadhan, wife of the Chief Secretary, Government of Madras.

Swell the Ranks of the People's Army

Madras Finance Minister's Call to the Young Educated

"For a country of the size of India, it is neither possible nor prudent to maintain a large regular Army, especially as a huge military expenditure will be at the expense of national progress and development in other spheres", observed Sri C. Subramaniam, Minister of Finance, in a talk broadcast from Madras station of All-India Radio, on the eve of the Territorial Army Day. "The existence of a well-trained and efficient Territorial Army", the Minister added, "will enable us to keep the strength of the regular forces to the barest minimum possible."

The following is the full text of Sri Subramaniam's speech:—

Today is the Seventh anniversary of the Territorial Army Day. The Territorial Army has an important role to play in India's defence. It is necessary that we should know something about this "Citizen Army" of ours.

As a nation, we are no doubt wedded to peace and our policy is one of friendship and goodwill to all nations.



Sri C. Rajagopalachari presided over the Madras T. A. Day celebrations and inspected the Exhibition on 17th November 1956.

Nevertheless, in the present world situation, we must always be prepared to defend our hearths and homes in

any emergency. The defence of a country is no longer the exclusive concern of the Government or even the Armed Forces of the country. In modern warfare, fighting is not confined to the Armed Forces alone. It becomes an all-out-war wherein the entire people are involved and all citizens will have to face the various perils involved in a modern war. It is therefore necessary that every Indian should be prepared to do his bit in the defence of India when the occasion arises. In this context, it has become an unavoidable necessity that we should build, as soon as possible, an adequate man power reserve of trained personnel who in times of peace would carry on their normal avocations, but during an emergency, be available for the defence of the nation. The Territorial Army in our country is intended to be such a reserve.

Under this scheme, military training is given to those citizens who are eligible and are desirous of getting it.

(Continued on page 7)



The Territorial Army Exhibition attracted awed attention of the young and old.

Police Take to Village Development in Madras

The disciplined ranks of the Police were harnessed to the needs of village development in Madras. On 15th November last, Sri W. R. S. Sathianadhan, Chief Secretary, Government of Madras, inaugurated the Village Development Scheme of the City Police, put into operation at Kattupakkam, a snug little hamlet 12 miles from Madras.



Sri W. R. S. Sathianadhan planting a sapling at Kattupakkam on 15th November 1956.

Under the scheme, 25 Policemen and 25 able-bodied men from the Care-taker Home will be deputed daily to work on much needed improvements in the village with the co-operation of the people and under the direction of the Community Development Officials. With characteristic thoroughness, the Police took photographs of the village as it is, and accepted the challenge of revitalising the village after the torpor of centuries. Photographs will be taken again after six months to show the improvement by contrast. This was an agreeable surprise to Sri Sathianadhan, who is also the State's Development Commissioner, and he

appealed for a spirit of competition and rivalry among the various agencies now engaged in village uplift work, so that the pace of progress in this direction could be accelerated.

(Continued from page 6)

For a country of the size of India, it is neither possible nor prudent to maintain a large regular Army, especially as a huge military expenditure will be at the expense of national progress and development in other vital spheres. The existence of a well trained and efficient Territorial Army will enable us to keep the strength of the regular forces to the barest minimum possible. In this way the Territorial Army helps to keep down our defence expenditure making available resources for the economic development of the country.

Those who join this force are not likely to be called up for military service except in times of emergency. I am saying this to reassure all prospective candidates that enrolment in this force will not interfere with their normal civil avocations.

It has given me very great pleasure to see the good response in the recruitment to the Territorial Army in the last few months. It is heartening to find that both in the rural and the urban units we have reached nearly 95 per cent of our targets in other rank strength. It is necessary, however, to keep up this enthusiasm. But I am sorry to note that the response to fill in the Officer and the J.C.O. Cadre has not been quite good. I need hardly impress upon every young educated citizen that it is his duty to volunteer for the Officer and Junior Commissioned Officer's ranks so that it would be possible to keep up the strength of the Territorial Army.

The Auxiliary Territorial Force has been renamed as Lok Sahayak Sena. Five lakh men will get elementary military training under its auspices

at the rate of one lakh per year. The training camps are located throughout India. This scheme has already started and is making satisfactory progress.

Here, then, is an opportunity for you to serve the country. The training you receive will fit you better for your various pursuits in life and will enable you to shoulder responsibilities in whatever sphere they may lie, more efficiently and with greater vigour. The Territorial Army is the people's Army, in the true sense of the word and is the citizen's own force. It is up to you, therefore, to swell its ranks and have the privilege of belonging to it and the country would be justly proud of you.

Jai Hind

—By Courtesy, A.I.R.,
Madras.

Prospects of Aluminium Industry at Salem

The development of heavy industries in the Madras State has so far been negligible and the Government consider that at least a few heavy industries should be started in this State during the Second Five-Year Plan period in addition to the exploitation of the Neiveli lignite deposits which has been undertaken by the Centre. A heavy industry for which there are special facilities in this State is the Aluminium industry. In this connection it is of interest to note that the production of Aluminium from Shevroy bauxite deposits in the Salem district has been recommended by Government. The bauxite is said to be of a very high quality and large blocks of power could be made available when the various new electricity schemes included in the plan are completed. In fact, the programme of expansion of electricity department takes into account the power requirements of the Aluminium Plant and other industries both in the public and private sectors.

The Expert Committee set up by the Union Government to advise on the Aluminium Industry inspected the

Bauxite areas in Salem and the Mettur Power Project on the 21st and 22nd March 1956. It is understood that they are generally satisfied with the occurrence of Bauxite in the area. While exploring the scope for the setting up of a 10,000-ton aluminium smelter in the vicinity of Salem-Mettur, based on the bauxite resources of the Shevroy Hills, the Government of India had invited a team of experts from a well-known American firm for inspecting this and other sites in the vicinity of Rihand for the setting up of one or two smelters as soon as possible. On the basis of power supply which Madras Government have promised to make available by 1958, the Government of India expect to be able to set up the first unit in the Salem-Mettur area by 1959 at the latest. The experts who visited the Shevroys recently are desirous of having representative samples of bauxite from this area sent to them immediately. Although several million tons of bauxite-gibbsite are said to be available in Shevroy area distributed over five or six hills, the quantity actually being mined is

only a few thousand tons a year. Both the Geological Survey of India and one or two companies have done a certain amount of exploration. Some analysis of the bauxite available has also been furnished to us by various agencies. These resources have been classified into various grades such as :

Over 50/52 per cent alumina ;
between 48/50 per cent alumina ;
below 48 per cent alumina.

While the grade above 50/52 per cent would certainly be most useful from the point of view of economy in capital investment and cost of production, from the stand point of making the resources of the area last as long as possible not only for a 10,000 ton unit to be set up immediately but also providing scope for its expansion to a 20,000-ton unit as soon as practicable it is necessary to know the quantities, of these different grades which might be harnessed. Once this information is available, it should be possible to work out suitable blends and base a plant on such blends so as to get the best out of the mines. In this context, therefore, considerable amount of detailed drilling operations is necessary and based on the results of such drilling suitable mining operations can be evolved.

In the meanwhile, however, it is necessary to get representative samples of each of these grades taken out and despatched to U.S.A. The entire economics of the scheme as well as preliminary designs of equipment would depend on the truly representative nature of the samples and their analysis. Intensive drilling operations have already been started by the Department of Industries and Commerce for taking out core samples of bauxite in the Shevroy Hills, which will be sent to America for tests.

India manufactured 4,182 diesel commercial vehicles during the first half of 1956.



Sri K. Kamataj declared open the V.O.C. Building put up by a Youth Association of Vyasarpadi, near Madras.

Soil Conservation Scheme in Ketty Valley

Ketty valley, situated at an average elevation of about 6,400 feet above mean sea level, is one of the most exploited areas of Nilgiris district. It is shaped like a bowl with hillocks all around and the depression in the centre. The valley extends over an area of 13.5 square miles, i.e., nearly 8,640 acres of which about 5,000 acres are generally under cultivation with food and non-food crops.

The early settlers in the valley who migrated from the adjoining Mysore plateau had cleared the land of all forests and natural sholas, and broken open the land for cultivation purposes which was generally of the shifting type. This once fertile valley was since then continuously cleared of the natural vegetation, and the shifting cultivation, that was practised in the early days gave place later on to the cultivation of potato which is a cash crop in the Nilgiris. The improper land use and defective cultural practices for the farming on very steep slopes, growing potato—an erosion permitting row crop year after year in the same land and cultivating up and down the steep slopes, combined with the hilly topography of the area and the heavy rainfall the region receives, have been causing severe erosion of the rich top soil and heavy loss of the available plant nutrients from the cultivated fields. The mechanical loss of the soil caused by erosion could be clearly seen from the silt laden muddy streams flowing in the valley and similarly the deterioration of the fertility of the soil could be assessed from the gradual reduction in the crop yield and the increased requirements of fertilisers needed for maintaining even this reduced yield in such severely eroded lands.

The soils encountered in the valley are clay, clay-loam and loam and are lateritic in origin, with gneissose rock or charnokite as the parent material. The soils have, on analysis, been found to be acidic in nature and deficient in plant nutrients. The area receives an annual rainfall of about 55 inches on an average, of which 26 inches fall on the bare fields left fallow, during the three months from October to December in the north-east monsoon

period. This is the critical period when most of the soil erosion takes place in the area. The slopes of land range from 1 in 6 at bottom of the valley to 1 in and more towards the ridge.

In order to prevent the erosion of the soil in these steep slopes and to improve and maintain its fertility status, the Agriculture Department of the Government of Madras has undertaken the execution of suitable soil conservation works over an area of about 500 acres in Ketty valley. In cultivable lands having slopes from 1 in 6 to 1 in 3 bench terracing with disposal drains and in prohibitive slopes steeper than 1 in 3, contour trenching and planting trees of economic value like blue gum and wattle are the measures adopted. The vertical intervals between the terraces are fixed with reference to the slope of the land and the depth of soil, so as to get an average working width of at least 10 feet that the ryots require for cultivating potato. As all the cultural operations are carried out in this part of the district only by manual labour, the average width of 10 feet of terraces provided are found to suit the ryots adequately. An inward fall of 1 foot and a longitudinal slope of 1 in 120 are given in the terraces, so as to collect the rain water falling on each of them, and drain it at a non-erosive velocity into safe outlets, excavated at intervals. The length of the terrace is also limited to 400 feet in order to avoid the water stagnating on the terrace for a long time, as the potato crop requires a quick drainage, for a study growth.

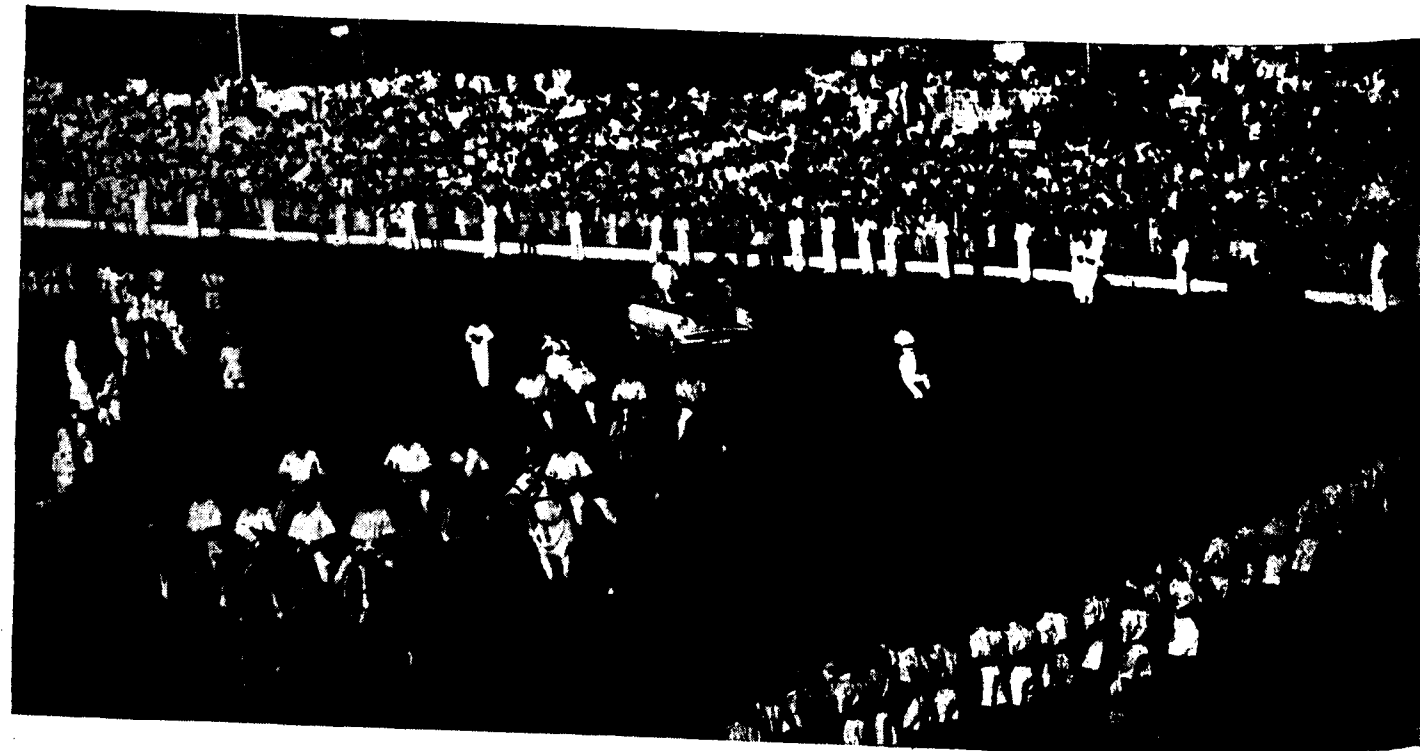
While excavating the earth from the hill slopes for forming the bench terraces, the sub-soil in the area gets inevitably exposed. But it does not adversely affect the crop yield, as the soil is highly responsive to the heavy manuring which is applied for the potato crop.

These soil conservation measures, besides preventing the erosion of top soil and improving its fertility, have also contributed to some extent to prolong the useful life of the reservoir capacity of the hydro-electric and irrigation project of Lower Kattery Dam and the Lower Bhavani Project

constructed lower down of which the Ketty valley forms a catchment. The beneficial results of the soil conservation works have proved by the increased yield of the potato crop obtained in the terraced fields, to the tune of 40 to 50 per cent over the adjoining un-terraced fields, as found from crop-cutting experiments conducted by the Director of Statistics, Madras, and the reduced manurial bills to the beneficiaries. The ryots who are quick and intelligent to appreciate these benefits, have taken to the soil conservation works so very enthusiastically that the Government have extended these works over a large area of 5,000 acres with the ultimate object of covering all the cultivated lands of the Nilgiris district.

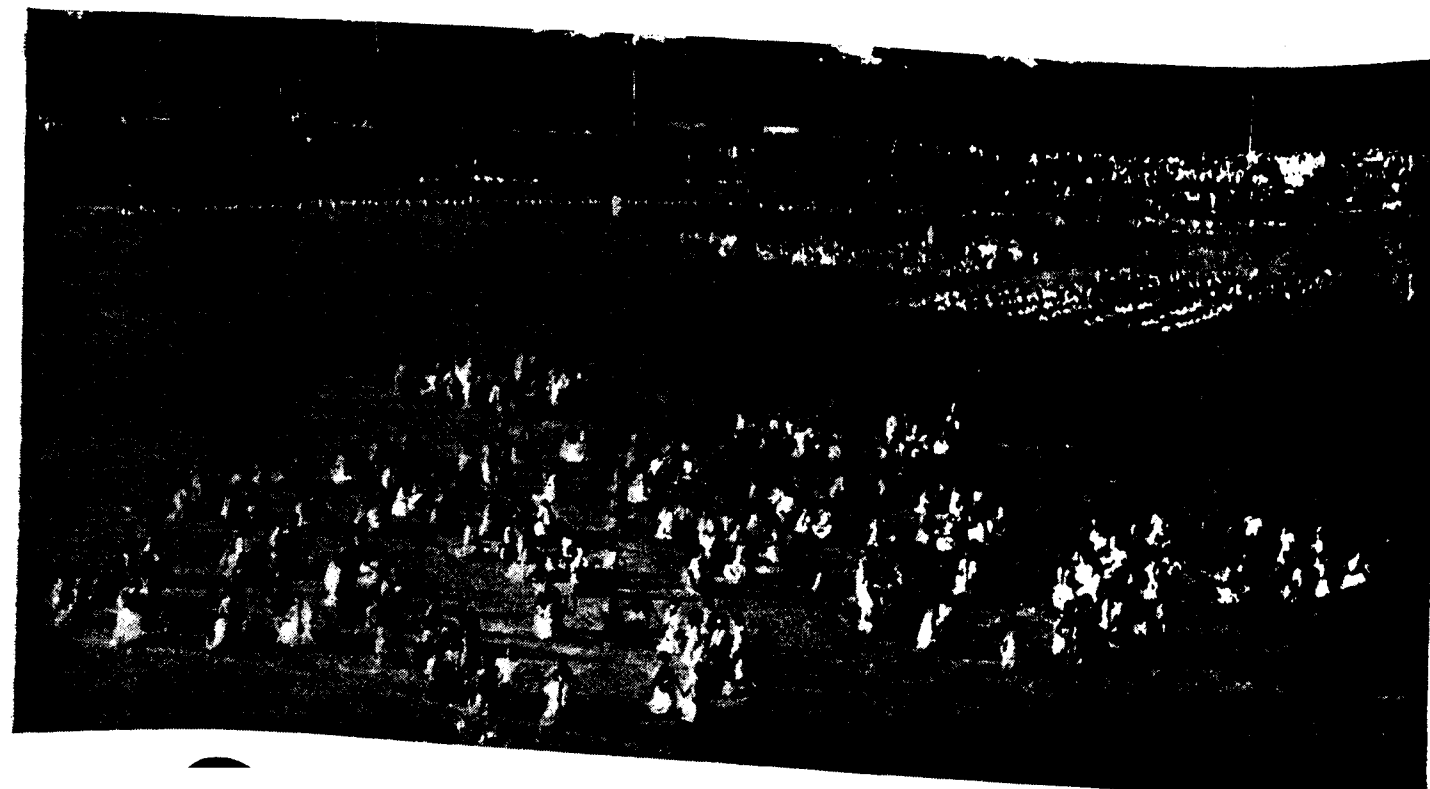
The works are done by the Government in the ryots' fields on scientific lines with specially trained officers in soil conservation practices. Manual labour and earth-moving agricultural machinery like tractor, bull-dozers are employed on the works. The entire cost of the works amounting to about Rs. 300 to 400 an acre is initially borne by the Government. Out of this 75 per cent is recoverable from the beneficiaries in fifteen or twenty easy annual instalments as fixed from time to time, the other 25 per cent being subsidised by Government. This expenditure that the ryot incurs for the permanent improvement to his field is recouped within two years by the increased yield from his land. The maintenance of the work is undertaken by the Government for a period of one year after completion and handed over to the owners of the land thereafter. Follow up agronomic practices, conducive to proper soil conservation practices and to ensure sustained yield from the terraced fields, viz., contour cultivation, crop rotation, green manuring, etc., are advocated by the Government.

It is hoped that the importance of soil conservation measures will be realised by a greater number of farmers, especially by those belonging to the hilly regions like the Nilgiris where the erosion menace is acute and the present golden opportunity afforded by the Government to undertake suitable soil conservation measures on proper lines will be availed of by the owners of such lands in the best manner possible.



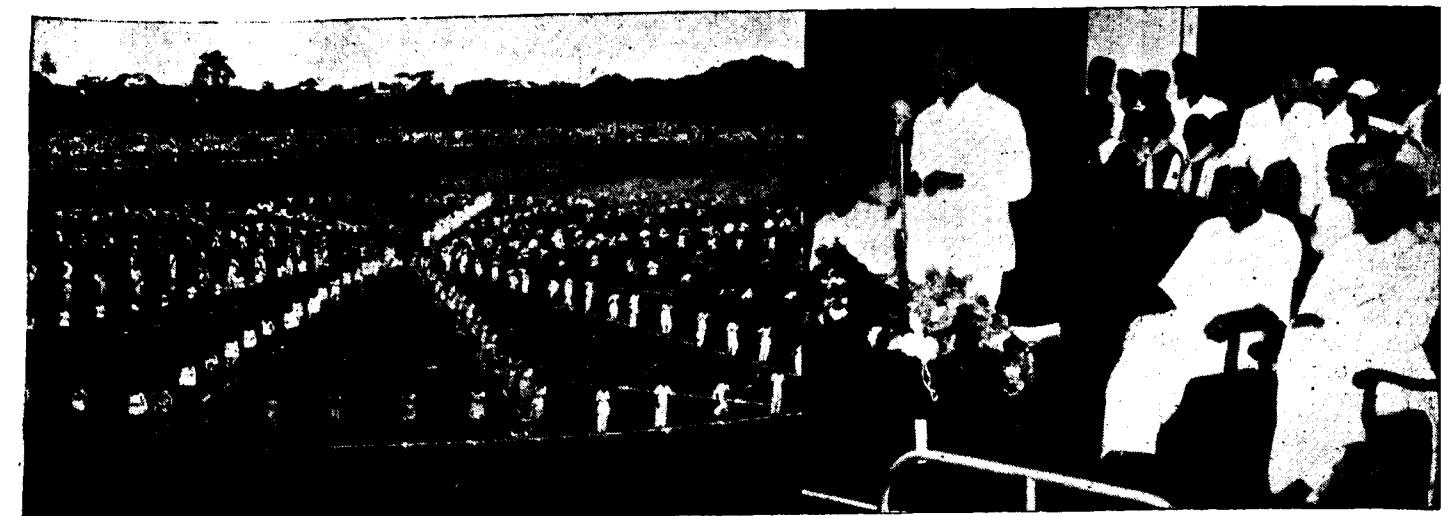
MADRAS CHILDREN GREET PANDIT NEHRU

SPECTACULAR PARADE OF THE GROWING INDIA



The All-India Children's Day on November 14, 1956, and succeeding days was celebrated in Madras with great eclat. Sri K. Kamaraj Nadar, Chief Minister, who took the salute at the Impressive and colourful "March Past" of the School Cadets reminded them that they must send their greetings to Pandit Nehru.

Over 50,000 children in their smart uniforms gave a display of mass drills on the last day when Sri. T. T. Krishnamachari, Union Finance Minister, presided.



Co-operative Housing Schemes in Madras State

A Survey by Registrar of Co-operative Societies

"Housing is next in importance only to food and clothing. There can be no civilised life without proper housing facilities. Housing means provision of comfortable shelter with such surroundings and services as would keep the persons fit and cheerful. It includes the development of new buildings sites in well laid out areas and improvement of the existing localities with suitable arrangements for amenities like water-supply, drainage, roads, lighting, means of communication, medical relief, education, shopping, etc.," said Sri A. Palaniappa Mudaliar, Registrar of Co-operative Societies, Madras, in a talk from Madras Station of All-India Radio.

House Shortage

Sri Mudaliar further said: "The number of dwellings available is definitely smaller than the number of families requiring them. Though this feature was noticeable in urban areas even during pre-war times, the shortage of housing accommodation assumed the proportion of a major problem everywhere during the war period and subsequent years. There has been a steady migration of people from villages to towns and cities in search of more attractive livelihood and owing to the growing industrialization of the country. The rapid growth in population has outstripped all available housing accommodation and has caused overcrowding in towns. The increase in the number of houses has not kept pace with the increase of population. Apart from the increase in the number of Government offices with their attendant increase in the number of employees, their families and dependents, etc., there has been a marked increase of the professional classes like lawyers, teachers, doctors, the student population, etc., in urban areas. The uneconomic wage structure in the villages and the lure of town life with its attraction for better services in the matter of water-supply, medical relief, market facilities, better recreational activities like public parks, cinemas, theatres and hotels,

keep back the people, who have already migrated to towns, from returning to their villages.

Agencies for House Construction

The normal agencies which can tackle the problem of house construction in urban and industrial areas are (i) the Government, (ii) municipal councils, (iii) private capitalists and (iv) employers. Employers can and do, on a limited scale, undertake housing schemes both in their own interest and in the interest of their employees. In big towns, where there is always demand for houses, both individuals and corporate bodies invest capital in the construction of houses and let them out on hire. But investment in houses is not so remunerative a proposition as investment in many other business and naturally less attention is given by private capitalists to this activity than to others which promise higher dividends. The municipal Councils are responsible for the health of their citizens and one of their duties is to improve housing; but with their limited resources and lack of staff they have not been able to tackle the problem on any large scale. Another agency is the Government and in fact, it is the Government that have undertaken to finance through co-operative housing societies the poorer and middle class people to construct houses in important places in the State.

Growth of Co-operative Housing

The pioneer attempt at organising a Co-operative Housing Society was made at Coimbatore as early as 1913-14 when the municipality cleared some congested areas and opened out extensions. Though the first co-operative building society was organised then, real progress in the activities of co-operative building societies began only from 1923 onwards when Government began to finance them direct. It was in that year that Government decided that financial help to building societies in the shape of loans was not only

essential but also proper, representing a legitimate contribution by Government towards the solution of the building problem. When the problem became more acute after the war, Housing Committees were constituted by Government in 1947, in municipal and major panchayat areas with officials and non-officials as members for the selection of housing sites in centres where the scarcity of houses was acute. After the Committees had selected suitable sites for house construction, co-operative housing societies were organised in these centres. Many of these societies were based on the individual ownership system providing finance to their members leaving the construction to the members themselves, while a few put up colonies by constructing houses and making them over to their members on hire-purchase system. Some societies have recently been formed for purposes of constructing houses for being let out to their members, the ownership always resting with the societies. Such types of tenancy societies are required by educational and other institutions in order to provide accommodation for their staff.

Scheme for Low Income Group

There are at present four types of housing schemes, viz., the Urban Housing Scheme, the Rural Housing Scheme, the Industrial Housing Scheme and the Low Income Group Housing Scheme, in operation in this State. The first two schemes are State-sponsored housing schemes, while the third and the fourth are schemes formulated by the Central Government for implementation through State Governments. Under the State Housing Scheme, the Government loans are made available to individuals through housing co-operatives up to four times their paid-up share capital subject to a maximum of Rs. 10,000 per house. The loan carries a reasonable rate of interest (the rate for the current year being 4½ per cent) and the loan is repayable in a period of

20 years, in instalments. Under the Low Income Group Housing Scheme, Government loans not exceeding 80 per cent of the cost of construction of the house inclusive of the site value, subject to a maximum of Rs. 8,000 per house are given to persons whose annual income does not exceed Rs. 6,000 per annum. These loans carry the same rate of interest as that charged by the State Government on loans made by them to societies. Persons desiring to avail themselves of the assistance provided under the Scheme should join a co-operative building society and apply for loans. The procedure in regard to the application and sanction of loans under the scheme is the same as that followed under the State Housing Scheme.

Industrial and Rural Housing Schemes

Under the Rural Housing Scheme, members of rural housing societies are eligible for loans up to four times their paid-up share capital as in the case of urban society and also up to seven times their paid-up share capital if they can offer agricultural land of value equal to the loan amount as collateral security subject to a maximum of Rs. 5,000 per house.

Under the Subsidised Housing Scheme of the Government of India for Industrial workers, when the workers form themselves into a co-operative society, the scheme provided that 25 per cent of the cost of construction including the value of the site is given as subsidy and 50 per cent of the cost as a loan provided the remaining 25 per cent is contributed by the workers concerned and provided the house conforms to the standard laid down by the Government of India in regard to the specifications, accommodation and the cost. The loan carries interest at the rate of 4½ per cent and is repayable in a period of 25 years.

At present there are 200 urban housing societies, 103 rural housing societies and three industrial housing societies in the State. The urban housing societies implement besides the State Housing Scheme, the Low Income Group Housing Scheme of the Government of India. The industrial housing societies are meant to implement the Government of India Subsidised Industrial Housing Scheme. Housing is one of the major schemes in the Second Five-Year Plan of this Department. The Rural Housing Scheme is not

Plans for Paper Industry in Madras

Proposals from Private Sector Invited

India is at present far from being self-sufficient in paper, i.e., ordinary writing and printing paper. The present internal demand for paper is estimated at 240,000 tons per year and the indigenous production is of the order of 170,000 tons. The deficit is being met by imports. Having regard to the rapid rate of increase envisaged in the Second Five-Year Plan in industrial production, literacy, education and the general standard of living, the demand for paper and paper board is expected to reach the figure of 350,000 tons by 1960-61 and to provide for this, it is considered necessary to plan for an installed production capacity of about 450,000 tons. The existing paper mills and the new projects licensed already are expected to reach the figure of 422,000 tons by 1960-61. It is therefore necessary to bring into existence additional production capacity of about 28,000 tons to make the country self-sufficient in paper.

In our State there is not even one paper mill at present and our entire requirements of this essential article are met by imports from outside. This is all the more regrettable, because Madras State has got all facilities for the paper industry, viz., raw materials such as bamboo, timber, chemicals and power and water-supply in adequate measure. The Government of Madras have therefore been anxious that a few paper mills should be established in the State. With this end in view they have discussed the subject with the experts of the Government of India.

Recently two teams of foreign paper experts, one German and the other Italian, inspected the facilities available for the development of the industry in this State. As a result of these investigations, it is considered that with the resources of bamboo, eucalyptus, wattle and other soft woods now available, it will be possible to set up two units for the production of ordinary writing and printing paper in the Nilgiris-Mettur area, one at Bhavanisagar and the other at Mettur, each with daily production capacity of 50/60 tons.

The paper industry has developed well in the private sector and the Government of India and the Planning Commission are both of the view that it should continue to be in the private sector. The Government therefore invite proposals from industrialists for starting paper mills at Bhavanisagar and Mettur Dam. They would be prepared to consider the question of granting all reasonable facilities to promoters. Financial assistance will be available from the Industrial Finance Corporation of India and the Industrial Credit and Investment Corporation. Applications for licence to establish paper mills, under the Industries (Development and Regulation) Act, 1951, should be made to the Government of India, Ministry of Commerce and Industry in the prescribed form.

Further information on the subject may be had from the Secretary to the Government of Madras, Industries, Labour and Co-operation Department, Fort St. George, Madras-9.

one of the schemes included in the Second Five-Year Plan but it is still treated by the State as an indispensable scheme and the State Government are therefore continuing to provide necessary allotment for its implementation.

Funds for Repair and Maintenance

While there are a good number of housing societies provided finance for the construction of new houses, there are not many co-operative institutions for providing long-term funds to house owners for renewals, repairs, remodeling or redeeming their houses. There are only four house mortgage banks at

Madras, Tanjore, Erode and Coimbatore. The maintenance of existing houses in a state of good repair is as important as the construction of new houses. It is therefore proposed to organise one House Mortgage Bank in every important town so that there may be such institutions functioning throughout the State. With a view to raise funds by the issue of debentures backed up by house mortgages and Government guarantee to finance these primary banks, proposals for the organisation of a Central House Mortgage Bank at State level are under the consideration of Government.

Rural and Urban Library Service

Pioneering Effort in Madras

It was rather unfortunate that in the recent debates in the Madras Legislature adverse comments were levelled against our library development programme. But, what are the facts? As in several spheres of developmental activity, Madras State has been a pioneer in establishing a comprehensive rural and urban library service and has indeed made remarkable progress in that direction. As early as 1948, the Madras Public Libraries Act was passed, the first of its kind in our country. It came into effect from 1st April 1950. The Act not only provides for the establishment of public libraries and the organisation of a State-wide library service, but also empowers the Local Library Authorities constituted under the Act to arrange for cultural advancement in all possible ways by means of study classes, lectures, exhibitions of art and science, and magic lantern and cinema shows, particularly suited to rural areas. An ambitious programme, no doubt, but well within the range of the practical as will presently be seen.

The Madras Public Libraries Act of 1948 as stated above came into force throughout the State from the 1st of April 1950. Under the provisions of this Act, the Director of Public Instruction was appointed the Director of Public Libraries; the Connemara Public Library, Madras, was recognised as the Central Library for the State and Local Library Authorities were constituted in all districts. As laid down in the Libraries Act, full library service is to be organised on the following basis: namely, a Main Library for every city with a population of more than 50,000; a Branch Library for every town with a population of 5,000 to 50,000; and a delivery station for each village with a population of 1,000 to 5,000. To achieve these objects, every Local Library Authority maintains a fund called the "Library Fund" from which all its expenses under the Act are met. The main and perhaps the only source of income for

these library authorities is the Library Cess. Every Local Library Authority levies in its area a library cess in the form of a surcharge on the property-tax or house-tax levied in such area under the Madras City Municipal Act, 1919, the Madras District Municipalities Act, 1920, or the Madras Local Boards Act, 1920, as the case may be, at the rate of six pies for every whole rupee in the property-tax or house-tax so levied. This is supplemented by an equal contribution by Government.

In spite of limited finance, all round progress has been made in the spread of library service in the State by Local Library Authorities. Tentative

By SRI T. PURUSHOTHAM, M.L.C.

schemes for the spread of library service and detailed schemes for the opening of branch libraries by the Local Library Authorities, were approved by the Director of Public Libraries. Seventy-eight branch libraries and 128 delivery stations were opened in the last two or three years. The library service under the Community Project areas and the Development Blocks in the State was co-ordinated with the library service of the Local Library Authorities in the areas concerned to provide for an integrated service. This is no mean record.

Public Response

The public response to these rural welfare activities needs special mention. The people actually view with each other in offering free buildings and other contributions for opening libraries in the villages. This has been most significant in Chingleput district. During the last three years, almost every town in the Chingleput district with a population of 5,000 and above has been provided with a library and today there are 18 such libraries at important centres. To each of these centres ten delivery stations (village libraries) are

attached. Thus there are 180 village libraries, 100 of them being worked with the help of Elementary School teachers and the rest with the help of the Officers of the Community Project Administration and National Extension Scheme. This net work of libraries caters to the needs of urban and rural folk in this district. A scheme of integrated library service with the co-ordination of the Community Project department has been implemented and the Government have granted special grants to the tune of Rs. 10,000 for rural library service at Thirukalikundram and Rs. 5,000 for each of the libraries at Tiruvellore, Uthukottai, Kadambathur and Sriperumbudur. Thanks to the enthusiasm of the local people at Poonamallee, Kadambathur, Mangadu, Uthukottai and Sriperumbudur, rent-free buildings were placed at the disposal of the local authority for the branch libraries. Besides, with the help of Government under Local Development Works Scheme the Library Authority was able to take up construction of its own buildings at Madurantakam, Chingleput and Walajabad and ere long they will be ready for occupation.

Children's Library

An important service taken up in Chingleput district is the Children's Library at Chingleput which is really popular. It is pleasing to note that Srimathi Rajeswari Ammal, wife of Sri M. Vedaachala Mudaliar, Municipal Chairman, Chingleput, has given a donation of Rs. 1,000 for this Children's Library. As early as August 1955 a scheme of Hospital Library Service was formulated, the stimulus coming from Shri Sri Prakasa, Governor of Madras, who presided over a special function of the Library at Poonamallee. On the eve of Mahatma Gandhi's Birthday and to mark the occasion Sri A. B. Shetty, then our Minister for Health, was kind enough to inaugurate the Hospital Library Service at Chingleput on the 1st of October 1955. A year later on the 3rd of October this year, a similar scheme was started at Kancheepuram by Srimathi Maragatham Chandrasekaran, Union Deputy Minister for Health. In the course of her speech, she strongly applauded the idea of a library at the T.B. Sanatorium, Tambaram, and the Sanatorium Library was started by the Local Library Authority last

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Social Welfare Services in Second Five-Year Plan

The social services and social welfare schemes formulated by the Planning Commission in the First and Second Five Year Plans are based essentially on the Directive Principles of the Constitution and are intended to implement the provisions thereof. These principles impose on the State the obligation to undertake a series of measures for promoting the economic and social well-being of the people, said Shrimati Durgabai Deshmukh, Chairman of the Central Social Welfare Board, addressing the international Seminar of World Y.W.C.A.

Shrimati Durgabai Deshmukh said that the primary aim in providing for the social services and social welfare services was to invest the political freedom which India had attained with an economic and social content. Referring to the provisions made in the First and the Second Five-Year Plans for social services, which include Education, Public Health and Medical Relief, Housing Schemes, Labour Welfare, Community Development and so on, she said that they constitute about 20 to 21 per cent of the total outlay in the First as well as the Second Five-Year Plans. Social services, however, are meant to serve the needs of all sections of the population whereas Social Welfare programmes as such are concerned with the provision of specialised services for certain specific groups, which have not received much attention so far. Among such groups are women and children in the rural areas and the handicapped and the delinquent sections. The establishment of the Central Social Welfare Board was intended primarily to ensure these services.

Rural and Urban Welfare Schemes

Shrimati Deshmukh explained the Scheme of Welfare Extension Projects and the programme of grants-in-aid to voluntary welfare institutions. In the former some basic services to women and children in regard to medical aid, promotion of public health in the rural areas, promotion of literacy and craft training are included. But not only are these basic services provided in the Project villages but a spirit of self-

help and predilection to self-improvement are also evoked in the rural population. In illustration of the benefits derived from these activities, Shrimati Deshmukh cited her experiences during a recent visit to some Welfare Extension Projects in Punjab and Pepsu States. Women of those Project villages gathered in large numbers to welcome her and told her how the literacy they had acquired had helped them in writing letters to and reading letters received from their relations without seeking the help of others.

As regards grants to voluntary Welfare institutions, they are intended to help such institutions to render services to women and children and to improve the services and also to stimulate continuous local effort for welfare activity. The condition that each institution receiving a grant from the Board should find a matching contribution to supplement the grant was an important factor in stimulating and sustaining this local effort.

A serious bottleneck

One of the serious bottlenecks in the promotion of welfare services, Shrimati Deshmukh said, was the absence of

trained workers to carry on activities in the rural areas. This is the reason why the Central Social Welfare Board has decided to train about 25,000 persons as *gram sevikas*, craft assistants, *dais*, and midwives during the Second Five-Year Plan period for employment in the Welfare Extension Projects. Besides this, the Projects are also having the services of a few thousands of voluntary women workers as members of Project Committees or in other capacities.

Shrimati Deshmukh explained the scheme of Urban Family Welfare Projects, which provide gainful employment to and form a source of earning a supplementary income by women of lower income group families in urban areas by organizing them into industrial co-operatives, under which small-scale industries like match-making are carried on.

Shrimati Deshmukh paid a tribute to the vital role of voluntary social welfare workers—men and women—in rendering services to the weaker and down-trodden sections of the community in the rural as well as in the urban areas.

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month. A special grant of Rs. 1,500 was made by the State Government for the Hospital Library Service. The Central Ministry of Health has given a grant of Rs. 5,000 for the purpose, testifying to the keen interest evinced by the Government in the spread of library service at various centres. The Ministry of Health, Government of India, have also been addressed by the Chingleput Local Library Authority for regular supply of Health Pamphlets, Posters and literature for working out a comprehensive scheme of rural health propaganda through the agency of the village libraries.

Latest Equipments

To achieve the many sided objects of the library movement, several facilities are available now. The Government have provided Publicity Vans in most of the districts and Field

Officers have been appointed for rural propaganda work. These vans are fitted up with up-to-date projector equipment and regular propaganda of a greatly educative nature could be carried out by co-ordinated activity of these different departments, and the Government should consider how best an integrated scheme of the kind could be implemented.

Further expansion of rural library service is necessary but the financial resources of the Local Library Authorities are limited. The Planning Commission, it was understood, has considered the problem, but there is no specific provision in the Second Five-Year Plan. It is however hoped that out of the allotments under Social Services, it should be possible to get an appreciable slice for implementation of a more vigorous programme of library development in rural areas in all the States.

Trends in Contemporary Indian Painting

J. M. Keynes once described the tendency of the radical economists of today to make scathing reference to classical economics as "shying at a composite Aunt Sally of uncertain age". Some of our critics who have not yet begun to suspect that art has sociological basis show a similar passion for jousting with a mummy—the revivalist painting in Bengal. This upsurge was the reflection of the Swadeshi movement in the aesthetic plane and has historical parallels. While Ignatius Loyola was mobilising the forces of traditional faith and discipline against the turbulent energy of the Reformation, El Greco helped the Counter-Reformation by rediscovering the idiom of the early Christian painting of the Roman catacombs. Similarly, the renaissance painters created a synthetic art from Ajantan, Moghul and Rajput elements to reaffirm their faith in the vitality of values native to the soil, in the face of currosive onslaught of the West. That context is thing of the past and in discussing the art of the revival we might cultivate the historic sense needed for the study of all period art.

What interests us today is the prolongation of the renaissance idiom. Divested of its morbidity which had often led to unpleasant exaggerations of style, the renaissance manner survives today, content to evolve purely decorative effects and managing that splendidly in the works of the host of artists. Two legacies have been left by renaissance painting which are of great value to contemporary decorative art: the melodic beauty of the line and the appeal of the delicately blended tonalities.

The revivalists had salvaged the aristocratic traditions of the past. There was another—a rich and vital folk tradition—which had to await the advent of Jamini Roy. Today the nation accepts not only its princes and emperors but also its poor relations. Motifs of folk art have the great virtues of simplicity, refreshing colour, direct emotional impact. Roy enriched this inheritance by taking over the classical parity of line of "Picasso's "Greek" period, reinforced often by the use of a

single colour and in many other fascinating ways. His vigorous, coherent statement of form mediates today between the younger artists and the folk art tradition to which they turn for inspiration. At least one artist—Biswanath Mukerji—has developed a new power in the folk idiom: a monumental weightiness of utterance.

KRISHNA CHAITANYA

An aristocratic tradition is an exclusive tradition and that is why the revivalists rejected suggestions from the West, though promoted by the anti-thesis of the East and the conquering West, they patiently studied the colour technic of Japan and China. The popular tradition, on the other hand, is less consciously exclusive. It is this latter attitude that has come to stay, especially after the attaining of Independence. There is an element of frustration in the backwash of all revolutions. And that could be good at times, as for instance when it leads to a more objective appraisal of the qualities of other nations. Though artists and critics both frequently get themselves tied up into knots in controversies over borrowing suggestions, the younger artists have quietly gone ahead, hunting up affinities, tripping up badly on occasions, but on the whole succeeding remarkably well in assimilating various influences and producing a modernistic art. The far flung nature of this network of stimuli will need a lot of space for a full analysis. The vigour and directness of the stoneage paintings of Altamira, the stylised treatment of anatomy in Egyptian frescoes, the sombre, heavy impact of Aztec images, the brooding intensity of early Coptic art, the magnificent breadth of vision of Sung landscapes, the subdued but profound lyricism of Hiroshige, the narrative and episodic treatment of Tibetan banner paintings and the subconscious symbolism of Negro art—all these influences, far flung in their sources in time and space, have played on modern Indian art.

The difference between academism and radicalism is not the same thing as the difference between stodginess and brilliance. Academism ends up in stodginess only when the solid workmanship, which is its first preference, is not backed up by inspiration. When it has that backing, it comes to incarnate myriad, ageless beauties. Conversely, when a flame-like intensity of inspiration is lacking in radical attempts, their structural weakness and sightness of total impact begin to show up. Anyway, the present neurotic age has no time for patient construction. So we find the various elements of classical architectonics dissolving and being independently pursued. The impact of the West emancipated the landscape which was a mere backdrop to the play of tender human sentiments in the *Nayika* and *Radhakrishna* paintings of the Rajput schools, but it is rarely that one sees ambitious constructions which can equal a Constable or a Poussin. Many artists seem to prefer narrative fluency to compositional weightiness, inspite of the frequent risk of sketchiness.

Rhythm is another minor deity who has broken loose from the general pantheon and has started demanding adoration on her own rights. In Sudhir Khastagir it expands into distended patterns, which reflect, for examples, the climax of ecstasy in dancing figures. Slower and more controlled in its undulations, the line in Hebbar conserves volumes deliberately planned to fit in with each other as an example. Hugging the enclosed volumes loosely, ungainly at first sight and attractive at second the line in Rathin Maitra gains beauty by patterned repetition. Architectural in its rigour, it gives an enduring stability to the represented forms in Premoja Chaudhuri, which are won back to warmth by a keen appetite for colour. Brittle and staccato, it develops an explosive nervous energy in Gopal Ghose. And so—as we may judiciously put it—on.

Expressionism has not found great favour with Indian painters, though Rabindranath Tagore was a great pioneer in the field. But we have at

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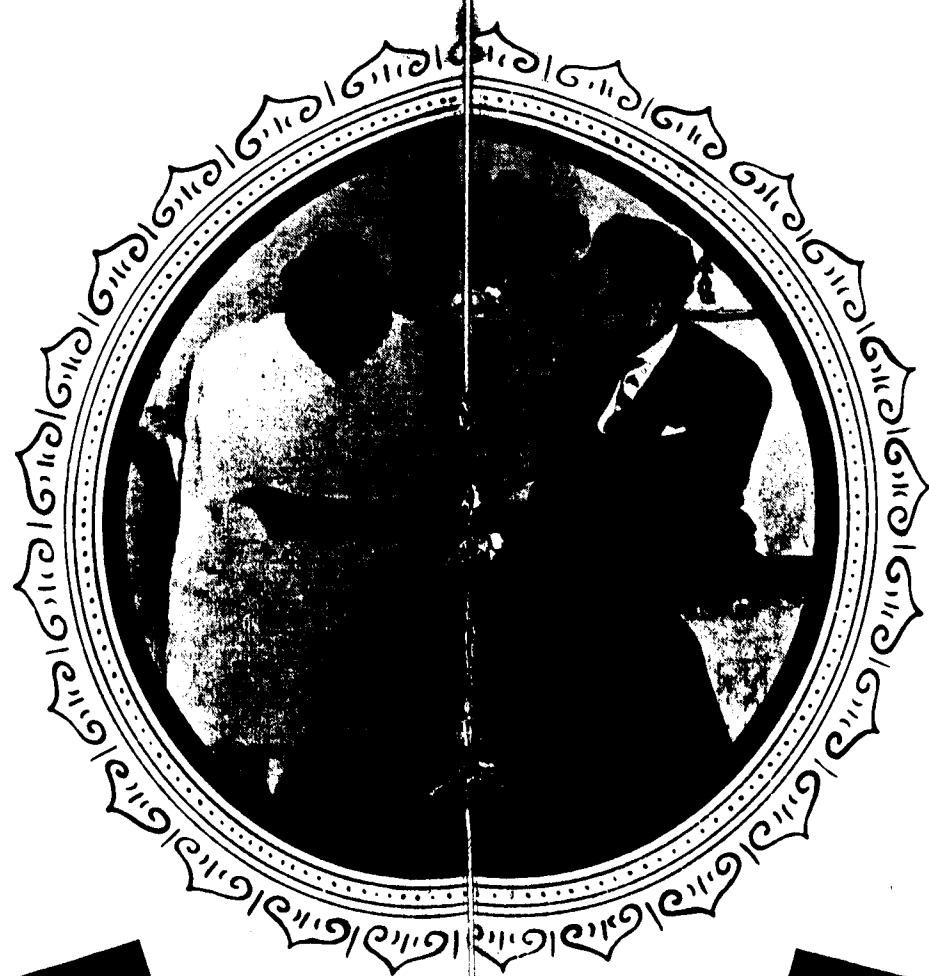


FIRE PREVENTION WEEK

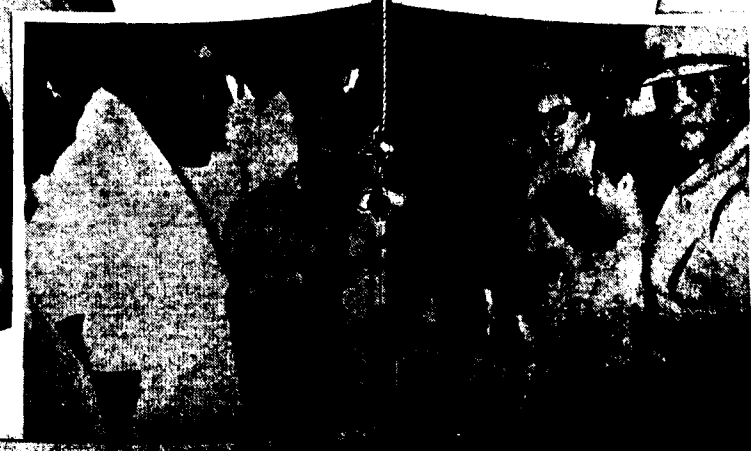
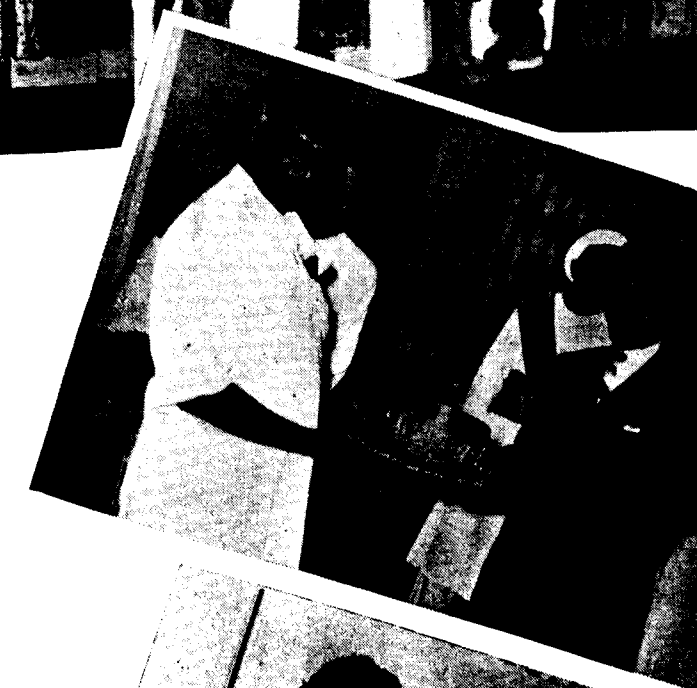
All through the Deepavali Week the M.F.S. carried out demonstration to propagate the simple rules of Fire Prevention. Photos show them battling with a "fire".



GLIMPSES
OF AN
IMPERIAL
VISIT



The Emperor of
Ethiopia walked
through our
Museum, talked
with our leaders
and smiled with
the children, to
discover Madras
in all its facets,
and leave behind
him happy
memories of
a Great Monarch.



National Values in Art

By K. N. RAMACHANDRAN.

The regenerating and revivifying influence of political freedom on all aspects of national life has exerted its influence on artistic and cultural fields also. The sense of freedom has brought with it new-born sense of self-respect and confidence and pride in national tradition and a thirst to integrate these with contemporary needs and value. Under the active patronage of the Government and the Public, along with other fine arts, the art of painting, drawing and sculpture too has taken tremendous strides forward. The deadening influence of foreign domination used to press with exceptional heaviness on graphic and plastic arts. Western values propagated through countless books and periodicals nearly extinguished indigenous art. As an intolerable uprising against this came the revivalist movement which originated in Bengal. But it was unbalanced seeing that it sought to revive *in toto* traditional Indian art without reference to the realities of contemporary life. This extremist approach was the natural outcome of a violent reaction against intolerable oppression. But now that real freedom has dawned the need for such radical stand is no longer felt and hence we find that there is a tendency among Indian artists in general to accept the best of what the rest of the world can offer and integrate it with his own national tradition and demands of contemporary life.

Madras the acknowledged home Indian art and culture has not lagged behind in the artistic upsurge evident throughout the country. Some ten years back art exhibitions used to be few and far between and public patronage in the fullest sense of the term was nil. But now it is very usual for the city to have at least a dozen exhibitions a year and the regular stream of visitors drawn from all ranks and walks of life to such exhibitions is a sure index of the popular realisation that art is vital for a fuller and more significant life.

The exhibition organised by the Progressive Painters Association recently is an important annual feature helping to attract as it does almost all the South Indian Artists to exhibit their

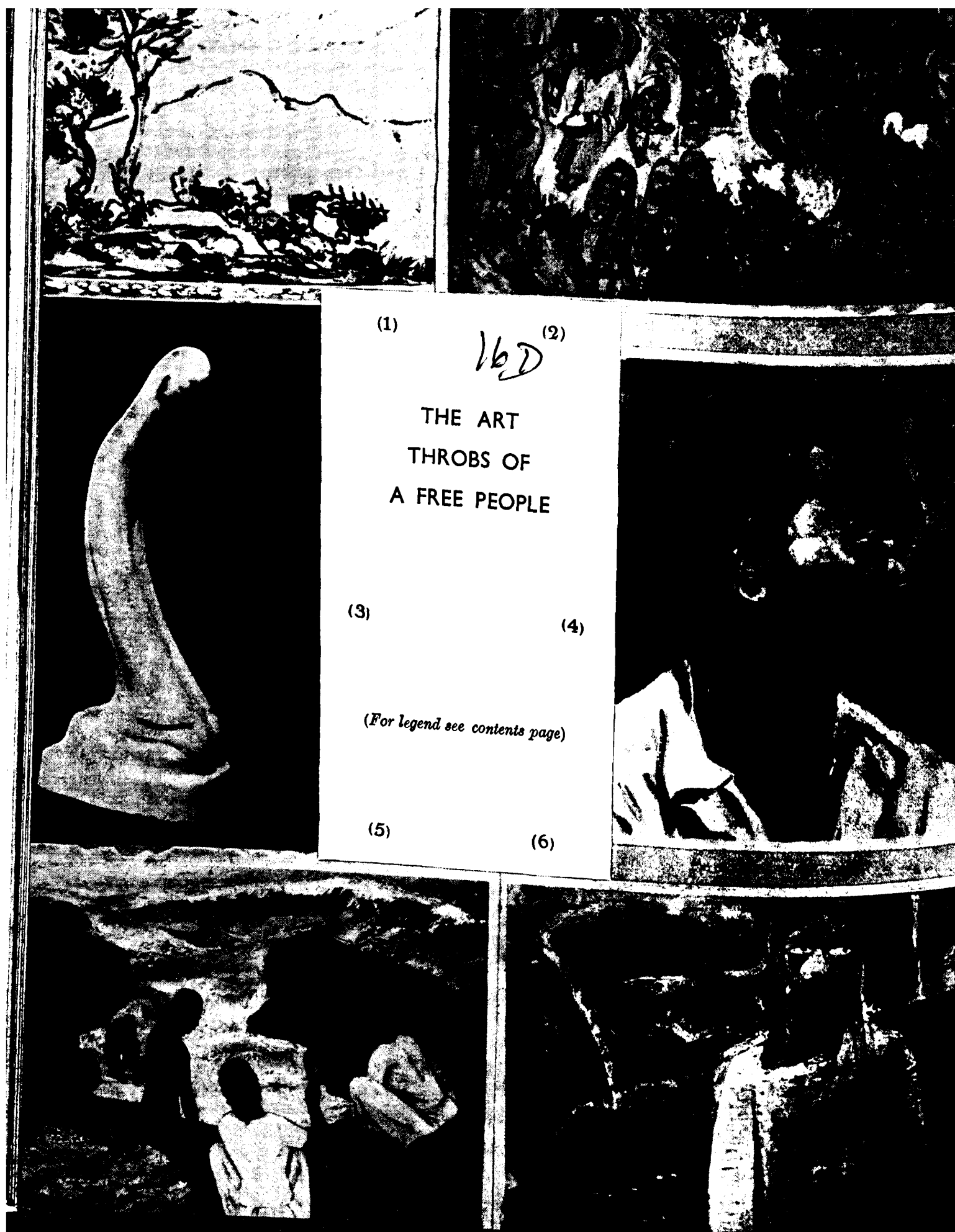
works before an art-loving public whose numbers are steadily increasing.

The first impression one gets is the lack of uniformity in the standard of exhibits. good, bad and indifferent works are on view. This is the result of the endeavour on the part of the organizers to give maximum possible representation to artists (ninety-two artists were represented) this being the only exhibition where all artists including art students get a chance to exhibit their works. In spite of this the overall effect is quite pleasing. A catholicity of outlook which embraces the art influences of the world is plainly evident. The works of the leading artists reveal a conscious effort to incorporate these influences into national art tradition. The problem seems to be the harmonious fusion of oriental and occidental values through the essential requisite of individuality of expression. The influence of impressionist, cubist and abstraction are visible in many of the exhibits. Yet by and large the artists have made conscious efforts with varying degrees of success to make their personal statements.

A few of the artists deserve special mention. K.C.S. Panikar takes credit for some of the most outstanding works on view. The centre piece of the Exhibition is a big mural depicting the life of the Buddha. The picture is executed in flats. The figures with their enlarged heads and big expressive eyes executed in mild relief have a character which is both traditional and distinctly personal. One form merges into another giving the picture wonderful unity and an impression of gentle rhythmic swaying. The colouring is superb and helps to lend an air of purity and graciousness so well suited to the theme. His sketches in blue have an epigrammatic brilliance behind which may be observed individuality and a capacity to incorporate world art influences with knowledge and taste. Sri K. Srinivasulu has contributed some outstanding works in tempera medium. The 'Red Bull' and 'Kathakali' are striking efforts in the traditional Indian style made significant and effective by the artist's own contribution to it. Mr. Dhanapal has con-

finer himself to sculptures only. His 'Mother and Child' is an excellent piece in plaster and his 'Portrait' in clay is high lighted by studied simplicity of form. He has in addition put up a fine portrait study of Nehru. 'Festival' by H. V. Ramgopal is a very good work. His 'eternity' is effective and thought-provoking. His sculpture piece 'Vinobhaji' is forceful and convincing. Mr. Krishna Rao has contributed works both in oils and water colour. 'Composition' by him is noteworthy in the former medium while his water colours display ease and fluidity of treatment. Mr. Anthony Das deserves praise for his 'The Sacred Hour', depicting Christ, the Man of Sorrows. Both the strong design and haunting colours make the picture a good example of strong emotion, wedded to fine technical sense. His Mamallapuram studies are also excellent. Mr. P. K. Prabhakar's forte is design. His picture 'Muslim Tailor' is a good work in which he has analysed in terms of broad design and vigorous colours, the essential character of his subject. His landscape 'Culvert' is another good work. 'Peace' by A. P. Santhanraj in the modern western idiom is quite interesting. Mr. T. R. P. Mookiah's 'Landscape' deserves special mention. Mr. Murugesu in his 'Boy' reveals a characteristic simplicity and directness of approach. The picture is expressive and very personal. Mr. Munusamy is concerned with modern abstraction and his works in their way are effective; the artist, it is evident, is struggling to convey a personal message through the well explored values of abstract art. Mr. Raddappa Naidu, a new comer to the field, has some good works to his credit. His palette knife treatment is interesting and his works reveal ease and dash. He has succeeded in dramatising common incidents in everyday life. 'Day Dance' by Varadarajan is a competent and pleasing effort. 'Movements in Crayon' by Jagannathan reveals good technical ability. There are also some charcoal sketches, those of T. Krishna Rao and Narayanan being particularly interesting. The commercial design section is well represented, the textile pieces by V. Surendran, Krishna Kumari and M. Pakkiri being attractive in design and craftsmanship.

The Exhibition was attracting a large number of visitors. The Madras public is evidently very much alive to this branch of the fine arts.



(For legend see contents page)

The Life-Line of Madras—Cauvery

By SRI U. ANANDA RAO, *Chief Engineer, Irrigation*

The Cauvery, one of the sacred rivers in South India, rises at an elevation of 4,400 feet above M.S.L. on the Eastern slopes of the Western Ghats in Coorg. After running through Coorg territory for about 60 miles it flows for quite a long distance over the Mysore plateau. Mysore Government have built a dam and formed a reservoir called Krishnaraja Sagara near Mysore. Above this reservoir two tributaries, one the Hemavathi, which has more or less an equivalent catchment like the Cauvery, and the other, the Lakshmanathirtha, a small tributary, join the Cauvery. Below the Krishnaraja Sagara, the river has a meandering course with several anicuts across it irrigating small areas on either side. About 30 miles below the Krishnaraja Sagara, a tributary called the Kabini joins the Cauvery on the right. Up to about 50 miles below Krishnaraja Sagara, the Cauvery lies entirely in Mysore State, after which the river enters the Kollegal taluk. From this point the river is the boundary limit between Madras and Mysore up to 88 miles from Krishnaraja Sagara.

(Under States Reorganization, the Kollegal taluk which adjoins the Cauvery river has been transferred to Mysore State.) About 11 miles below Kollegal, is Sivasamudram where the Cauvery falls by about 330 feet and power is developed by Mysore. About 6 miles below Sivasamudram the Simsha joins the Cauvery on the left. Further 16 miles lower down Arkavathi also joins the Cauvery on the left. Below Sivasamudram the river runs in a deep ravine between high mountains up to Hogenakal falls, the starting point of the Mettur Reservoir water-spread. The river is very narrow in this reach and at a particular point, that is about 88 miles from Krishnaraja Sagara the river is said to be so narrow that even a goat can leap from one bank to the other. This place is called Mekadatu, the Kanarase equivalent for 'goat leap'. At this point the Mysore Government has a proposal for developing power. Below this point the river runs entirely in Madras State. About 35 miles below the Hogenakal falls, the great Mettur Dam was built across Cauvery between the years 1925

and 1934. The dam is a fine beautiful structure about a mile long with a height of about 214 feet above the deepest river bed. This reservoir serves both irrigation and power. Leaving Mettur Reservoir, the Cauvery is joined by the Bhavani, the largest tributary draining the Southern slopes of the Nilgiris hills about 25 miles lower down. Thirty miles below, the Noyyal, another tributary enters the Cauvery. Twenty-two miles further down, the Amaravathi which starts from the Anamalai hills of Travancore State empties into Cauvery.

The Agenda Cauvery

At about 30 miles below the infall of Amaravathi, the river reaches its maximum width at a place called Agenda Cauvery at the head of the Srirangam Island. At this point, the river divides into two branches, the right arm called the Cauvery and the left arm called Coleroon, the latter being mainly a flood carrier. At this site an anicut was built by Sir Arthur Cotton in 1836 to divert low flows into the Cauvery and to pass down flood discharges which are not required for irrigation under the Cauvery. This is called the Upper Anicut. This was converted into a barrage later. Twenty-six miles below this anicut, is the Grand Anicut where the Cauvery Delta system commences. At this point, a portion of the flood waters of the Cauvery and also the irrigation requirements for Coleroon are passed into the Coleroon through the Grand Anicut. Here the Cauvery divides itself into three branches, the Cauvery, the Vennar and the Grand Anicut Canal benefiting the fertile tracts of the Tanjore district which is known as the 'granary' of South India. The Cauvery below the Grand Anicut divides itself into a number of branches so that the main river becomes very insignificant by the time it empties into the Bay of Bengal at a place called Cauverypatnam. Actually, they become canals and channels to carry water for irrigation in the delta.



Mettur Canal

The Coleroon, which is the flood carrier empties in the sea on the northernmost limit of Tanjore district. In the year 1836 an anicut was built across this river at a point about 70 miles below the Grant Anicut, in order to ensure supplies to the ayacut under the river. This was later on converted into a regulator and known now as a Lower Anicut.

The Cauvery river is 500 miles long and drains about 31,000 square miles down to the sea of which 14,200 square miles lie in Mysore State. The Western Ghats are subject to heavy rainfall during July and August. The Mysore plateau gets rains more or less from both the monsoons but below the Mettur Dam, the catchment receives more of North-East monsoon and very little of the South-West. High floods usually occur in the river in July and in November, the highest recorded flood of 26th July 1924 giving a peak flow of 456,000 cusecs at Upper Anicut.

Early irrigation

Irrigation in the Cauvery delta dates from time immemorial. Many old works still extant show that irrigation received considerable attention at the hands of the old Pandya Rulers. The system was, however, more an inundation system than a controlled irrigation system and must have on this score been somewhat defective from the very first. For a century before the advent of British Rule these works remained neglected on account of wars and political changes and in 1801, when the East India Company took over the Tanjore district, irrigation in the delta was rapidly deteriorating, the channels were silting up and fields were left uncultivated for want of proper water supply.

To re-establish satisfactory irrigation conditions was one of the first problems for the British Government. In 1836 Sir Arthur Cotton built the Upper Anicut across the Coleroon to divert more water into the Cauvery. To make up for the consequent diminution in supply to the Lower Coleroon irrigation, the Lower Anicut (70 miles below the Grand Anicut) was also built across the Coleroon. But the supply in the Cauvery during floods became too great to be controlled and began to cause serious damage to the bed and banks of the Cauvery. To check

this tendency, a grade wall called the Cauvery dam was built in 1845 across the Cauvery at the Upper Anicut. Further improvements followed, the most important of these being the construction of the regulators across the Cauvery and the Vennar at the Grand Anicut, the cutting down of the crests of the Upper and Lower Anicuts, the provision of lift shutters at these anicuts capable of holding extra supply for the benefit of irrigation. Regulators across the various minor rivers were also constructed at the sites of all the important offtakes in the delta. These improvements made the distribution of water-supply more systematic by placing under complete control whatever quantity of water was available at the Upper Anicut, but there still remained the defect of highly fluctuating supplies with long spells of drought to be got over. A storage reservoir of a size that could help the delta to tide over the spells of drought by storing the surpluses when available was the obvious solution and the Mettur Dam was the result.

In addition to these, bed regulators were constructed in place of Korambus which had to be reformed after every flood, resulting in interrupted supplies. Several works were carried out under Grow More Food drive also to extend irrigation by improvement of duty.

The Cauvery river irrigates about 2½ lakhs of acres in Mysore State. Above Mettur there are about 6,000

acres of irrigation under the tributaries of the Cauvery in Kollegal taluk. Between Mettur and Grand Anicut there are several old irrigation channels irrigating about 135,000 acres. Below Grand Anicut, irrigation under the Cauvery is about 1,400,000 acres including 300,000 acres contemplated under the Cauvery-Mettur Project.

The Lower Coleroon anicut which is 70 miles below the Grand Anicut consists of regulator across the Coleroon with canals taking off on either side of the river with an irrigation of about 120,000 acres in Tanjore and South Arcot districts. The Vadavar and the North Rajan taking off from the left side irrigate lands in South Arcot district and Kumukimanniar and South Rajan taking off from the right irrigate lands in Tanjore district.

The total irrigation under Cauvery and Coleroon below Mettur Reservoir is about 16 lakhs acres. The existing irrigation under the Bhavani, Noyyal and Amaravathi comes to about 80,000 acres. Since there was still scope for utilising more water from the Cauvery basin the following schemes have been launched.

And now Bhavani dam

A reservoir was formed across Bhavani about 22 miles from Mettupalayam with a capacity of about 28,000 M.C.ft. The catchment of the river at the site is 1,621 square miles. The dam is of masonry in the river portion and of earth at the flanks.



Lower Bhavani Dam.

The earth dam is nearly 5 miles long and its maximum height is 140 feet. A canal 124 miles long taking off on the right will irrigate 207,000 acres of dry crops in Gobichettipalayam, Bhavani, Erode and Dharapuram taluks of Coimbatore district and Karur taluk of Tiruchi district. This is the first scheme where irrigated dry crops are tried in this State.

A reservoir on the Amaravathi about 15 miles from Udumalpet is under execution. The catchment area of the river at this site is 324 square miles and the capacity of the reservoir will be 3,600 M.C.ft. In this case also the dam will be of masonry in the river portion and of earth at the flanks. A canal 40 miles long taking off from the left of the reservoir will irrigate 15,000 acres half wet and half dry crops in Udumalpet and Dharapuram taluks of Coimbatore district.

Since it was not possible to achieve full development of irrigation of 301,000 acres as contemplated under Cauvery-Mettur Project, a scheme to irrigate 17,000 acres in Coimbatore district and 28,000 acres in Salem district by

supplying water from Mettur Reservoir was taken up. Water will be supplied for half wet and half dry crops in rotation from 1st August to 15th December in normal years. The scheme consists of a canal taking off from the high level channel of the Mettur Reservoir and running for about 27 miles in Coimbatore district. At about the fourth mile a branch takes off from this canal and crosses the Cauvery through a pressure aqueduct and runs for about 40 miles in Salem district. This scheme is nearing completion.

Two more canals are proposed to be excavated under the Second Five-Year Plan. The right side canal 86 miles long from above the Kattalai Bed regulator will benefit 20,622 acres comprising 16,141 acres in Tiruchi taluk and the balance in Tanjore taluk, mostly, under tanks, utilising flood flows of Cauvery. The scheme has just been sanctioned and preliminaries are being started.

Another canal 54 miles long from the left of the Upper Anicut to benefit 22,114 acres in Tiruchi district has also

been sanctioned recently. The ayacut will be mostly under tanks utilising flood water of Cauvery as in the previous case. This scheme also will be taken up for execution this year.

A proposal for forming a reservoir on the Noyyal river with a view to stabilise the existing irrigation under tanks and channels is under consideration. Since the yield from the river at the site is not appreciable, it is proposed to divert some flows from the Siruvani reservoir through the existing tunnel.

With all the existing and new irrigation now proposed in the Cauvery basin we will be utilising 85 per cent of the total yield. Even in Godavari and Krishna not more than about 12½ and 25 per cent respectively have been utilised. Under Thambraparani which is supposed to have been well developed with compounded double crop, the existing utilisation is only about 68 per cent. We have thus put the Cauvery to its maximum use. It is the only dependable source for Madras State, in fact it is the life-line of this State.

Why the Metric System ?

About 80 years ago the question of standardizing weights and measures in India was taken up. The tola-seer system, based on the weight of the rupee, was considered unsuitable as a standard because it was not capable of accuracy. The foot-pound system of England was also rejected because it was 'An organic change not convenient to the people of India'. The Metric System was considered most suitable though it was not brought into force. Emphasizing the unsuitability of the British system for India, John Strachey wrote, about 70 years ago, "The English system of weights and measures is in itself most complicated and inconvenient and the sole reason that can be assigned for maintaining it is that it has existed for centuries and the people of England have become accustomed to it. The proposition that we should deliberately impose such a system on India seems to deserve no discussion."

India has chosen the simple decimal system of weights and measures which is internationally popular; the adoption of the Metric System will also make day-to-day work easy.

The urgent need for adopting a uniform system arises out of the fact that there are over 100 different systems of weights and measures in India today.

Agricultural marketing officers in the various States have reported on the wide-spread loss to the agriculturists and the malpractices adopted by the wholesale buyers. "While purchasing from producers the merchant uses larger weights and measures and while selling he uses smaller weights and measures." Such practices naturally lead to mutual suspicion between the cultivator and the wholesaler, and "the producer is tempted to make up by mixing dirt and dust what he loses in weight".

Such confusion and loss can be ended only by fixing definite standards of weights and measures for the whole

country. This is the purpose of the bill, now before Parliament, for introducing the Metric System.

Chaos and Confusion

As early as 1947, Rajaji said "The variation in the present units of weights and capacity may be described as almost chaotic and it is necessary to bring about reform by way of uniformity, whether we adopt the Metric System or not". What shall be the standard? The weights and measures now in use are unsuitable for standardization because they are neither uniform nor widely in use. The seer, for example, is practically unknown in many parts of the South; and it varies in value from 8 to 112 tolas all over India. We could, perhaps, fix a weight equivalent to a kilogram and call it a seer. Then, except for the name, the standard seer would still be new!

Even in Britain which employs the foot-pound system, there is recognition of the superior merit of the Metric System. Lord Kelvin says, "I believe I am not overstating the truth when I say that half the time occupied by clerks and draftsmen in engineers' and surveyors' offices—I am sure at least one half of it—is work entailed upon them by the inconvenience of the present barrage of weights and measures. The introduction of world Metric System will produce an enormous saving in business offices of all kinds—engineering, commercial and retail shop".

Engineers and students of science are already employing the Metric System. In some form or the other the Metric System is also familiar to most of us. We tune the radio on say, 356 or 61 metres. Snap shots are taken on size 6 × 6 centimetres or 6 × 9 centimetres. Sports events are held on the Metric System: 100 metres, 400 metres, 5,000 metres etc.

Phased Programme

In the course of the next 10 years different sections will gradually switch

over to the Metric System. The Railways, for example, will first revise the schedules of rates and tariffs and also instruct the staff in the use of the Metric System; during the next phase the tariff will be brought into use, fares and time-tables will show both the systems, and finally, during the third stage the Metric System will completely replace the present system. Similarly the Posts and Telegraphs Department, the Defence Ministry and Customs Department, etc., have plans for the gradual introduction of the System, so that day-to-day transactions will be easy, and normal smooth working will not be upset.

In other words, the change-over will be completed over a period of ten years. At the end of it, the Metric System will extend to day-to-day domestic transactions. By this time the country will have become familiar with the operation. First-hand knowledge of its working will help realization of the intrinsic ease of operation which makes it superior to other systems.

Commending the Metric System, the Prime Minister has said: "We are, on the whole, a conservative country and it is not very easy to change old-established customs. But I am sure that our decision to adopt the Metric System is the right one from every point of view. For the scientist, the technician and the statistician, it is the only system that can be used. But even to the people generally this will bring relief and many facilities. There will no doubt be slight inconvenience to begin with, but this will not last."

The total value of diamonds imported in India in 1955-56 was Rs. 13.09 lakhs as against Rs. 10.09 lakhs in 1954-55.

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Encourage Big-scale Storing of Agricultural

An important recommendation of the Rural Credit Survey Committee (1951-54) relates to development of warehousing as a means of extending credit facilities. This article indicates the role warehousing will play in India's agricultural progress and the direct benefits the farmer will derive from it. It also shows how the National Co-operative Development and Warehousing Board to be inaugurated on November 7 by the Prime Minister proposes to establish a network of warehouses in the country and promote agricultural progress.

Warehousing, a much misunderstood term in India, is often confused with simple storing operations. It is storing, no doubt, but as a regular industry and an important adjunct of marketing.

As marketing becomes more and more orderly, storing would need to become more and more specialised, and would require special agencies working on a commercial basis. In short, warehousing is specialised storing for commercial gain by specialised agencies.

Need for Warehousing

The importance of warehousing has been stressed by a number of committees. As far back as 1928, the Royal Commission on Agriculture in India referred to the urgent need to provide warehouses and said:

"The future may see in operation in India, the type of licensed warehouses conducted for profit within the market premises somewhat on the lines of the system which exists in the United States of America. The nature of agency providing such facilities is not of first importance. The urgent need is of accommodation at the disposal of the cultivator at moderate cost."

The Central Banking Enquiry Committee in 1932 laid even greater stress

on warehousing, and remarked "that considerable improvement of the credit situation and the money market in India can only, under present conditions, be achieved by improving and extending as soon as possible the storage and warehousing of goods in order to enlarge the basis of credit system."

Similar recommendations were made by the Agricultural Finance Sub-Committee of the Policy Committee on Agriculture, Forestry and Fisheries (Gadgil Committee) in 1944, and by its Co-operative Planning Committee in 1946. The Marketing Sub-Committee of that Policy Committee also stressed the importance of warehouses.

In 1949 the subject was thoroughly studied by the Rural Banking Enquiry Committee which recommended the setting up of a Warehousing Development Board, financed jointly by the Central Government, the Reserve Bank and the Provincial Governments. In the first Five-Year Plan, the Planning Commission also strongly recommended to the State Governments and the Reserve Bank to take all necessary measures for development of warehousing.

State Activity in Warehousing

The Reserve Bank of India—one of whose main responsibilities is to provide adequate credit for agricultural operations at reasonable rates of interest—has also been devoting a great deal of attention to the subject.

In 1944, the Bank addressed to all Provincial Governments a letter bringing out the importance of warehouse receipts which could serve as collateral for providing credit to agriculturists who deposit their produce in the warehouses. For facilitating action in the Provinces they appended a model Bill to the circular which could serve as a basis for provincial legislation.

Again, in December 1948, the Reserve Bank circulated another model Bill, redrafted on the basis of suggestions received from some of the State

Governments and, along with the Bill, appended a set of model rules for this purpose. But for a new activity such as this, public support was not forthcoming in adequate measure. This experience fortified the general conclusion of the Rural Credit Survey Committee that, to rehabilitate the agriculturist, an all-out drive, based on integrated development of credit, marketing, processing and warehousing, with State participation, was essential. Accordingly, it recommended that warehousing should be undertaken by the State itself.

Salient Features of Warehousing Act

These recommendations were accepted by the Government, and the Agricultural Produce (Development and Warehousing) Corporations Act, 1956, was passed by Parliament in June 1956. The Act provides for the constitution of a National Co-operative Development and Warehousing Board and Central and State Warehousing Corporations.

This Board was set up on September 1, this year, under the chairmanship of Shri Ajit Prasad Jain, Minister for Food and Agriculture. It consists of representatives of the Central Government, the Reserve Bank and the State Bank of India, the Chairman, Forward Markets Commission, and nine non-official members.

The function of the Board generally is to plan and promote programmes for the production, processing, marketing, storage, warehousing, export and import of agricultural produce through a co-operative society or a warehousing corporation. One of its specific functions is to develop warehousing by subscribing to the share capital of the Central Warehousing Corporation or to advance loans or grant subsidies to that Corporation or any State Warehousing Corporation.

Warehousing Corporation

The actual execution of the warehousing programme will be undertaken

Produce to Serve as Security for Credit

by the Central Warehousing Corporation and the State Warehousing Corporations in each of the 13 States that come into being on November 1.

The Central Warehousing Corporation will set up about 100 warehouses at centres of all-India importance during the course of the Second Five-Year Plan. These warehouses will have a capacity ranging from 10,000 to 20,000 tons, as needed at a particular place. The State Corporations will be set up at centres of mere local importance about 250 warehouses whose

during storage. The technical assistant will be responsible for grading of the commodities, and will have a small laboratory at his disposal for this purpose.

It is estimated that apart from the accountants, clerical and labour staff about 800 technical personnel will be required. Since persons with experience of the working of licensed warehouses are not available, the persons appointed will be given intensive training before they are posted to the warehouses.

Legislation must exist in each State to license and regulate the working of the warehouses. At present such legislation exists in Andhra-Telangana, Bombay, Bihar, Madras, Karnataka, Kerala and Madhya Pradesh. The remaining States of Punjab, Rajasthan, Assam, West Bengal, Orissa and Uttar Pradesh have yet to enact legislation. They are expected to do so shortly.

Warehouse Receipts as Security for Credit

The most important aspect which the Government has in view in undertaking this programme of setting up a chain of warehouses all over the country is the creation of warehouse receipts which can serve as a collateral security for the provision of credit to the agriculturists. For each lot deposited in a licensed warehouse, a receipt will be issued to the depositor showing the quantity and the quality of the goods deposited. This receipt could be discounted with any bank to obtain loans or transferred to any other person, since it will be a negotiable receipt.

Incidentally, the existence of banking facilities in the rural areas is a pre-requisite for the measure to be effective. Steps, therefore, are being taken to open branches of the State Bank of India in areas where none exists at present.

This facility should go a long way in eliminating distress sales by the cultivator at the time of harvest. The credit available will enable him to put

his goods on the market as and when found most profitable and not necessarily at the time of harvest, when prices are low on account of heavy arrivals. At the same time, the consumer will be assured of a regular flow of goods to the market on a more or less even price all through the year.

Advantages of Warehousing

The creation of the warehouse receipt and the consequent provision of credit are not the only advantages which can be claimed for warehousing. The storage of goods in warehouses constructed on scientific lines and looked after by expert technicians trained in scientific storage will eliminate large losses through insects, pests, rats, etc. Even on a conservative estimate these losses amount to about 3 million tons every year.

Another advantage which will accrue in the matter of smooth trading will be the grading of produce to be stored in these warehouses. Workable standards for various grades are being evolved in respect of all the commodities which will be accepted in the warehouse and all lots coming into the warehouse will be graded. When these grades become well recognised all over the country, not only will higher returns be assured to the producer but trading in these quantities will become smoother. It will then not be necessary physically to check the commodities nor will trading by samples be necessary. Mere indication of grades would assure to the purchaser the quality for which he pays.

In the task of national reconstruction warehousing is but one of the many activities in hand. But without a widespread programme of warehousing, marketing cannot be made more orderly, huge wastes cannot be eliminated and, above all, adequate credit at cheap rates with an assured recovery cannot be extended to the cultivator. The National Co-operative Development and Warehousing Board which has been set up is meant to fulfil this need.

By SHRI KRISHAN CHAND, I.C.S.,
Joint Secretary, Ministry of
Agriculture.

capacity will range from 1,000 tons to 10,000 tons. At the same time co-operative societies will be assisted to set up godowns at centres below subdivisional level where there will be no warehouses of corporation.

These warehouses and godowns will, it is expected, provide storage accommodation to the extent of about 3 million tons. The commodities which will be accepted at these warehouses, to start with, will be foodstuffs, including edible oilseeds, cattle fodder, including oilcakes, and other concentrates, raw cotton (ginned as well as unginned) and cotton seed, raw jute and vegetable oils.

More commodities will be added as experience is gained and more space becomes available.

Personnel for Warehouses

A large technical staff will be required to man these warehouses. Each warehouse will have, besides the warehousemen, a fumigation assistant and a technical assistant. It will be the duty of the fumigation assistant to examine the commodities from the point of view of freedom from disease and to ensure their wholesomeness

Animal Nutrition—Our Immediate Problem

"Food is the instrument of nourishment and Nutrition is the act of using it." The Science of Animal Nutrition is one of the youngest sciences, but as an art of Animal Husbandry it is as old as human civilization.

Although the maximum quantity and optimum quality of an animal product like milk, wool, meat, etc., produced by an animal is determined by its genetic constitution, the importance of Nutrition lies in the provision of concrete materials as balanced feed for the full expression of its genetic potentialities. The problem of Animal Nutrition is only one of the important inter-connected aspects of national prosperity linked essentially with soil fertility or soil nutrition, crop or plant nutrition, animal nutrition and human nutrition, which constitute as a whole the agricultural advancement of a country like India.

The earth is the mother of us all—plants, animals and men. Everything else our bodies need except air and Sun, comes from the earth. Nature treats the earth kindly, but man treats her harshly by over-ploughing, over-grazing, making the earth barren, eroded and lowest in soil nutrients. Right thinking, earnest action and team work are needed to preserve the potentialities of fertile mother earth. A teaspoonful of fertile soil is alive with a seething mass of about one thousand millions of bacteria, twenty millions of actinomycetes, one million of fungi, one million of protozoa, hundred thousands of algae and thousand yeasts—all of which derive nourishment from soil, crop residues, green and organic manures and fertilizers which are necessary for optimum nutrition of the soil for the proper production of forage plants.

Prime Minister Pundit Nehru has emphatically called attention to this important aspect recently on September 7th in Rajya Sabha, thus: "They must think of more and more green manures and other types of natural manures which unfortunately were wasted today for the intensive cultivation and increase of the yield per

acre of cultivation." Our soil today is the lowest in yield for we waste the valuable farm yard manure, dung as fire cake and urine of animals wasted away.

All animals including men get their nourishment ultimately from the soil. The plants require for their growth about thirty-four elements out of which twenty-four elements in turn are used by animals for building flesh, blood, bones and for making milk. But, if the soil is deficient in one of the necessary elements, the plant may be unable to get enough of it to supply the needs of animals. This is notably true of phosphorus, cobalt and copper in several parts of our country. Animals feeding on plants in these areas are sub-normal in development and even subject to severe diseases. The whole subject of the effect of soil composition on plant composition and through this on animal health and human health deserves the increasing attention which

By V. MAHADEVAN,
Professor, Veterinary College

it is getting today. Soil management, agricultural practices and animal husbandry, besides influences of climate, are the ascending steps in the ladder on which a stable, healthy and vigorous civilisation of human activities is built in a predominantly agricultural country like India.

Importance of a well-nourished cow

During the First Five-Year Plan, we have achieved self-sufficiency in our foodgrain production. These cereal foods require a minimum supply and consumption of at least ten ounces of milk per adult per day to make them nutritionally balanced. As the total milk supply and the average amount of milk produced by each cow is very low, which gives us only less than one-fifth of our requirement, the immediate importance of Animal Nutrition in the present Second Five-Year Plan, is for improving the milk yield of our cows and draught capacity of our work cattle.

Though only 413 pounds of milk is the average yield of all of our cows, well-nourished animals in Government Farms have given as much as 10,000 pounds in 300 days and as an example, one of our best cows in the Sindhi herd, at Hosur Cattle Farm has given in about ten years of her productive life 90,917 pounds of standard milk with 4 per cent butter fat or 3,637 pounds of butter and six heifer calves and four bull calves to extend its high future yielding generations, when she was sold still useful. Nearly four million gallons of blood must have passed through her udder to produce about ninety-one thousand pounds of milk in ten lactations. The great efficiency and importance to humanity of the well-nourished dairy cow in converting material not edible by man into the invaluable human food, milk, is not generally appreciated. A cow producing annually 4,000 pounds of milk employs or uses 80 per cent of the feed for its upkeep and 20 per cent for producing milk; but when milk production attains 8,000 pounds per annum, only 55 per cent of the feed serves for maintenance as against 45 per cent for production. A recent F.A.O. publication called *Agriculture in the World Economy*, says: "How widely is it known, for example that the most important agricultural product in terms of either value or weight is neither wheat nor cereals nor meat, but milk?" The three keys to high goal farming and high net profits are high output per acre, high feed efficiency per livestock and high output per man.

The three cheapest foods of milch cow are pasture or green grass, hay and silage, or preserved green grass. We are short of the three ideal feeds to make cheap and more milk, better growth and performance of our cattle. As cereal straws which are available from more than six million acres of irrigated cultivation in our State are very poor in nutrients, lacking completely in digestible protein, we try to compensate the deficiencies in this roughage, while feeding our cattle, by the addition of concentrates like oil cakes, brans and husks. Even here

the estimate of our requirements for all our numerous cattle makes us deficient in the supply of these concentrates.

The case for Alfalfa

In our intensive agriculture under irrigated conditions we have very little land for grazing. Forest grazing is far off to be of use to our milch cows which are needed very close to our homes. With minimum of available land how are we to make our cows receive a complete and nutritious feed and make her yield maximum milk? Is there an ideal forage plant which can form a complete food for the cow and which can be produced to a maximum yield with minimum labour and make it competitive with other commercial crops raised under irrigation. Yes; among the numerous forage plants, lucerne or alfalfa has been known from very early times as the "Queen" of the forage plant. The name alfalfa means in Spanish language "The best forage plant". It builds soil fertility and furnishes large yields of high quality feed for cows. It is the highest in feed values of all the common hay and forage crops. Its native home is Turkistan in Asia wherefrom it has followed the path of historic civilisation from east to west. Today it is grown in more than thirty countries and there are about twenty-five different varieties which can suit all climates and soils. In India too, it has been famous till fifty years ago, for we learn that two varieties of lucerne, one a frost resistant strain from Ladakh in Himalayas and another a drought resistant kind called Indian Alfalfa from Poona were introduced in the United States in the beginning of this century and they have been found to thrive well and their cultivation today extends to more than twenty million acres in the States. Lucerne or Medicago Sativa is a perennial legume with deep penetrating root systems with a very high water requirement and phosphorous and potash in large amounts as manure. Once cultivated during the cool weather, it can stand drought or heavy rainfall. It gives an excellent soil cover and also serves as a good green manure crop. It is used as a rotational crop to increase the soil fertility. It can give eight to nine cuttings under irrigated conditions and about two cuttings under non-irrigated conditions in a year. If an

initial stand is established suiting the soil with the addition of required bacterial culture fertilisation with superphosphate and potash, it easily maintains itself in the subsequent years by its roots penetrating even more than twenty to thirty feet depth to draw its nutrients and water. It is usually cut and made into hay and as the hay contains 15 to 28 per cent protein with all the vitamins and minerals particularly being rich in calcium and with high palatability cows can consume as much as three pounds for each 100 pounds of live weight per day as a single balanced food. By feeding this hay, many of the high yielding cows do not require protein concentrates. The yield varies from four to nine tons per acre and even as high as fifteen tons are reported under the best managed experimental plots. Though it is not fit for grazing or for feeding as green crop in larger amounts to the cows as it causes undesirable bloat, alfalfa mixed with grass is harmless for grazing and recently a hybrid creeping alfalfa which can be used for grazing has been developed by crossing the Ladakh variety with a strain known as Grimm or a German variety. Alfalfa meal, which is a rapidly dried leaf, is used for poultry. Alfalfa leaf juice is used for human consumption as it is five times richer in vitamin C than the same amount of orange juice. A high yielding cow in a lactation yields about ten thousand pounds of milk, by eating daily about thirty to forty pounds of alfalfa hay as the sole feed for several lactations without any detrimental effect in breeding efficiency or milk yield or butter fat content. Alfalfa can be used as a rich green manure in preference to other green manure crops because it gives nearly two tons per acre per cut under best managed conditions.

Among the forage plants alfalfa in its high yield per acre and high milk yield as a completely balanced food per cow and as a perennial legume, suited to varying conditions of soil and climate really deserves its name as the "Queen" of the forage plant even under modern conditions, justifying the three important aspects of high level farming by high output per acre and high feed efficiency per cow and high output per man per unit land. Other legumes can also take their place in the forage economy but only second to alfalfa. If we can grow alfalfa at

(Continued from page 16)

least one painter who has to be taken seriously—Maqbul Fida Hussain. Mosaic in its psychological import, his presentation condenses many memories, held together by a masculine violence rather than by a feminine harmony and delivering its cryptic message with a finality that has to be respected though it cannot be often loved. The difficulty with some of the other artists is that, even allowing for the cryptic nature of expressionist statement, one is not sure of the semantic validity of the whole business, one is not certain that there is an inner meaning seeking expression.

The present is a transitional phase in the history of Indian art. Tradition has dissolved on the surface but lives in innumerable concealed prolongations. Dissolving cultural frontiers have brought strange merchandise from afar in which our men are learning to traffic with increasing adeptness. Given a fair measure of sincerity on the part of the artist and the critic, we can be optimistic about the future.

Increasing Sugar Production

The production and despatches of sugar from indigenous factories amounted to 18.59 and 17.48 lakh tons up to October 31, 1956, in the current season as against 15.90 and 12.16 lakh tons respectively in the corresponding period of the last year. The stocks with the factories on October 31, 1956, stood at 5.42 lakh tons as compared with 4.32 lakh tons last year.

More Sugar for Free Sale

The Government of India have released a further quantity of 1.60 lakh tons sugar for free sale. This brings up the total releases so far made for free sale out of the 1955-56 production to 16.31 lakh tons.

least one acre out of every hundred acres of irrigated land, the hay produced under optimum conditions can supplement the cereal straws in the place of costly concentrates and the minimum amount of green grass required for feeding our milch cows to increase their milk yield, for alfalfa hay and dairy cow go hand-in-hand in all the dairy countries.

Writings of Gandhiji

* Review By SRI N. MURUGESA MUDALIAR,
Deputy Secretary, Agriculture Department, Government of Madras.

This is a book of selections from Gandhiji's writings brought up to 1948. It bears a Foreword by Gandhiji himself, in which he has stated that the selections made by the compiler show the thoroughness with which he has gone into the subject. Gandhiji has been writing almost throughout his life and his writings covered a wide variety of subjects. He wrote not merely for the pleasure of writing as thought and writing had always been with him tools for more efficient action towards the ideals which he tried to achieve. The writings represent not mere expressions of views and opinions but a subjective record of his ideals, aspirations, struggles and failures. A compiler of selections of such writings is thus both at a disadvantage and at an advantage, as the process of elimination is difficult while the result of selection cannot but always be satisfactory. The planning of the selections adopted by Sri Nirmal Kumar Bose is however original and different from a few other compilations that have so far been published. As the foundations of Gandhiji's life and work were based on a firm faith in God, his ideas about God form the first chapter in the book. The second and third chapters deal with the discipline necessary for the realisation of truth and the fundamental beliefs and ideas of Gandhiji in his quest of truth. Later chapters deal with Satyagraha, Non-Violence, religion and morals, etc. A few other chapters deal with the gospel of work, distribution of wealth, industrialism and class-war. Two chapters are devoted

to Self-Government and Indian Freedom and one for Education and one for Women's Problems. The last chapter "Miscellaneous" covers a wide variety of subjects, like health, swadeshi, planning, etc. The classification of topics by the compiler is as good as could be.

The selections are made not only from Gandhiji's Autobiography and his writings in the *Young India*, *Harijan* and *Navajivan* but also from other publications containing Gandhiji's utterances and writings from time to time. One important difference between this compilation of selection and others is that the passages selected are important not merely for their aphoristic condensation of thought but also for giving more or less a complete and intelligible statement of Gandhiji's views on various topics. For example, a quotation like this: "To me God is Truth and Love; God is ethics and morality; God is fearlessness; God is the source of light and life and yet he is above and beyond all these," is merely a restatement of old truths. But the compiler has taken care to select passages which give Gandhiji's own experience of the Truth, like the following: "I have made the world's faith in God my own, and as my faith is ineffaceable, I regard that faith as amounting to experience. However, as it may be said that to describe faith as experience is to tamper with Truth, it may perhaps be more correct to say that I have no word for characterising my belief in God." This is an original and courageous statement, which only experience like Gandhiji's can embolden. Here is again a confession and an affirmation: "I am but a poor struggling soul yearning to be wholly good—wholly truthful and wholly non-violent in thought, word and deed; but ever failing to reach the ideal which I know to be true. It is a painful climb, but the pain of it is a positive pleasure to me. Each

step upward makes me feel stronger and fit for the next." Gandhiji regarded Ahimsa as the farthest limit humility for the perception of truth which is God. As his approach was not intellectual or metaphysical but emotional, he says, "He is no God who merely satisfies the intellect if he ever does. God to be God must be true to the heart and transform it." But Gandhiji was deeply aware of the human limitations for the apprehension of God as Truth and intimate experience. Gandhiji's whole life was a striving to annihilate ego and to seek God's guidance through prayer. "Prayer is not asking," he says, "but is a longing of the soul. It is a daily admission of one's weakness. It is better in prayer to have a heart without words than words without a heart." Gandhiji sought God's guidance on His terms and not on his own.

The compiler has taken care to select not only those utterances of Gandhiji which would appeal to the orthodox thinkers but also to the modern minds. The selections represent Gandhiji both as one who had the deepest regard for tradition and experience but also as a revolutionary and iconoclast. Listen for example to this passage: "Rationalists are admirable beings, rationalism is a hideous monster when it claims for itself omnipotence. Attribution of omnipotence to reason is as bad a piece of idolatry as is worship of stock and stone believing it to be God. I plead not for the suppression of reason, but for a due recognition of that in us which sanctifies reason." It is easy to go on giving examples of the variety of subjects covered by the book.

Gandhiji once made the astonishing statement: "As a matter of fact, my writing should be cremated with my body. What I have done will endure, not what I have said and written." What I have said and written is useful only to the extent that it has helped you to assimilate the great principles of truth and ahimsa. If you have not assimilated them, my writings will be of no use to you." Doubtless, this book will induce its readers to follow in however small a manner the great principles which Gandhiji upheld in his life. For this reason, his writings deserve to be widely published and

(Continued on page 27)



"SEE FOR YOURSELF." Nearly 400 farmers of the State were taken on a 7-week "see for yourself" tour of India by the Government of Madras. Sri V. R. Ramanatha Iyer, Mayor of Madras, saw them off at Rayapuram Station on 9th November 1956.

All about India's Rice

The area under rice in India is about one-third of the total world acreage under rice. India's production is one-fourth of the total world production and her average yield per hectare is 1,220 kgs. of paddy whereas the world average is 1,650 kgs.

India is the second largest producer of rice in the world, the first place going to China. In 1954-55, India produced 24 million metric tons of milled rice, Pakistan 8 million metric tons, Thailand 3.6 million metric tons, and Burma 3.8 million metric tons. India is a large consumer too. In 1954, she imported roughly one-eighth of the internationally traded rice. India's intake of rice per capita is, however, low. Taking the post-war average (1947-48), rice consumption per person in India/Pakistan was about 68 kgs. per year, as against 164 kgs. per year in Burma, 121 kgs. per year in Indonesia, and 102 kgs. per year in Japan.

During 1954, the price of milled rice in India was around Rs. 16-12-0 per maund as against Rs. 38-3-0 in Indonesia, Rs. 27-6-0 in Malaya, Rs. 14-15-0 in Egypt, Rs. 14-14-0 in Pakistan and Rs. 37-2-0 in the U.S.A.

Of the total area under rice in India roughly one-third is irrigated. The rest generally thrives in rain water. During 1954-55 the area under Japanese method of paddy cultivation was about 1.3 million acres and the total additional production as a result of this method of cultivation came to some 600,000 tons. In 1954-55, the highest yield per acre obtained in respect of a plot entered for crop competition in Madhya Pradesh was 5,606 lb. as against the average yield per acre of about 632 lb. of cleaned rice. The inter-State movement of paddy by rail and river was 1.3 million tons as against the one million tons in 1953-54. The marketable surplus of rice in India is

about one-third of total production, the rest being retained in villages for local consumption and seed.

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propagated. This handy compilation is one which should be in the shelf of every Indian home along with other books like the *Sayings of Ramakrishna*, the *Kural* and the *Gita*. The publishers would be doing a great service if the selections are translated into the Indian languages and published at a cheap price.

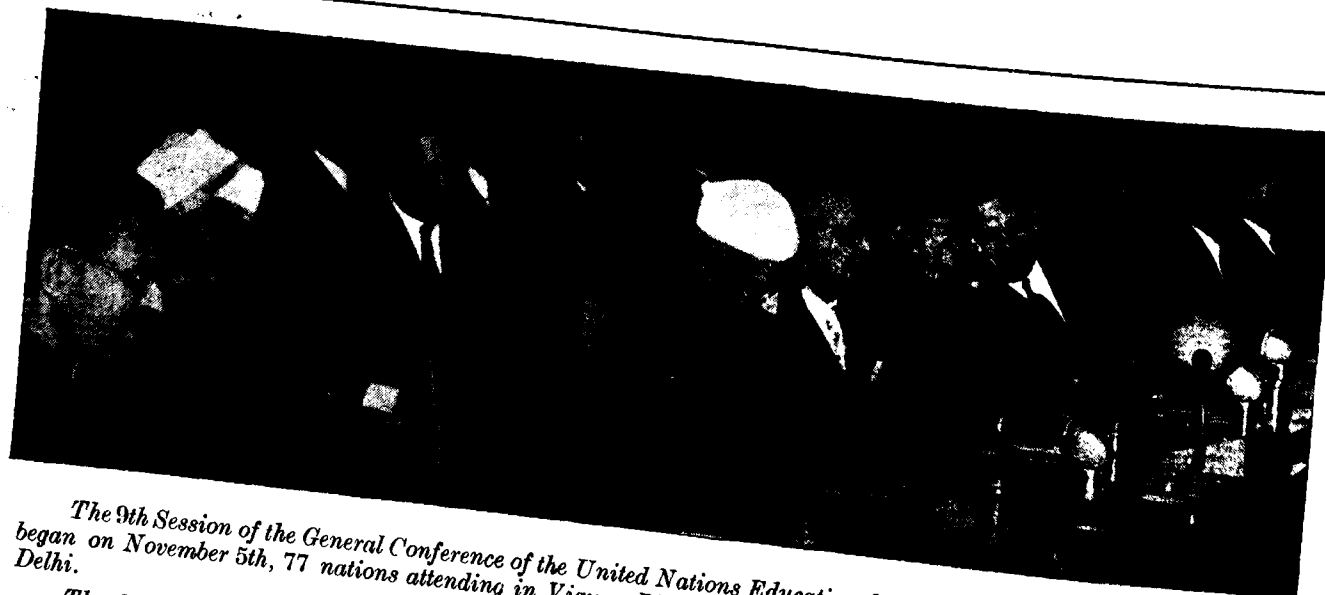
This compilation is not a mere book of great thoughts. It embodies the words of the greatest man of our times who stood witness to truth and a just and living God. It will give guidance for those who seek in any situation.

The book has an excellent index and as usual it is well printed. While the original price was Rs. 4, that of the second edition is only Rs. 2.

* SELECTIONS FROM GANDHI

By NIRMAL KUMAR BOSE

Published by Navajivan Publishing House, Ahmedabad, pages I to XXIII plus pages 1 to 311. Price, Rs. 2.



The 9th Session of the General Conference of the United Nations Educational, Scientific and Cultural Organization began on November 5th, 77 nations attending in Vigyan Bhawan, the newly constructed Conference Building in New Delhi.

The Conference was inaugurated by H.E. Justino Zavala Muniz, President of the 8th Session of the General Conference of the UNESCO. The Prime Minister Shri Jawaharlal Nehru, and Maulana Abdul Kalam Azad, Minister for Education, Government of India, and head of the Indian Delegation, addressed the Conference.

Photo taken at the commencement of the UNESCO Conference: Left to right—Shri K. G. Saiyidain, Secretary, Ministry of Education; Shri A. L. Mudaliar, Vice-Chancellor, Madras University (Deputy Leader); the Prime Minister Shri Jawaharlal Nehru; Mr. Justino Zavala Muniz, President of the 8th Session of the General Conference of UNESCO; Maulana Abdul Kalam Azad; and Dr. Luther H. Evans, Director-General of UNESCO.

Said Dr. Julian Huxley, in a message:

It is of happy augury that the General Conference on the tenth anniversary of UNESCO's founding is being held in that great Asian country, India. I can testify from my own personal experience to the devotion of India to the principles of UNESCO and the zeal with which she pursues their practice, in all fields of education, science and culture. I have been witness to the energy and inspired intelligence that Sir Sarvopalli Radhakrishnan has devoted to UNESCO, both as a member of the Executive Board and as leader of his national delegation. And in discussions I have been privileged to have with India's great statesman, Jawaharlal Nehru, I have realized how wholeheartedly he is ranged behind UNESCO's ideals and its practical operations.

Export Promotion Council for Leather formed

An Export Promotion Council for Leather has been formed, with the support of the Government of India, to maintain and promote the export of tanned hides and skins and leather goods.

This is the eighth in the chain of such Councils sponsored by Government to maintain and develop export markets for Indian products. The other seven Councils, already in existence, are those for cotton textiles, silk and rayon, plastics, engineering goods, cashew and pepper, tobacco and mica.

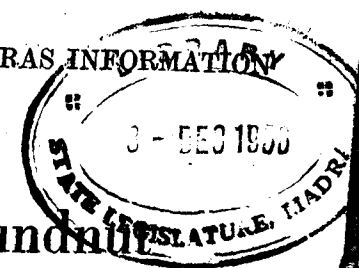
India's annual exports of tanned and dressed hides and skins are of the order of 470,817 cwt. valued at about Rs. 22.7 crores. This commodity is

one of the most important foreign exchange earners, coming immediately after the first three major foreign exchange earners, viz., tea, jute manufactures and cotton textiles.

The export promotion Council for leather will undertake market studies in individual foreign countries, send trade missions abroad and appoint representatives abroad for purposes of collecting and disseminating among exporters statistical and other information regarding the export trade. The Council will also render all possible assistance in the matter of supervising and certifying the landing weights and measurements of leather exported to foreign markets from India.

Two of its immediate objectives would be to institute quality control or tanned hides and skins intended for export and to diversify the exports of these commodities by establishing direct contacts with consumer countries.

The Joint Chief Controller of Imports and Exports, Madras, is the Chairman of the Council. It has as its members representatives of the industry and trade, the Development Officer (Leather), Development Wing, Ministry of Heavy Industries; the Cattle Utilization Adviser to the Government of India, Ministry of Agriculture, the Regional Director of Small Scale Industries Service Institute, Madras and a representative of the Government of Madras.



Development of Vitamin-Enriched Groundnut Easy Process Patented

Groundnut is an important article of food, rich in proteins and vitamins particularly vitamin B1, and nicotinic acid. It has a high nutritive value and on account of its cheapness and abundant availability, is consumed by a large section of the population particularly the poorer classes in India's annual production of groundnuts is over 3.7 million tons of which a substantial proportion is used for edible purposes in the raw or roasted state and in the preparation of a variety of food articles.

Rich source of B1

The value of groundnut as a good source of vitamin B1 is, however, greatly limited by the fact that it cannot be taken in large quantity, the kernel being difficult to digest and unduly rich in oil.

Investigations conducted at the Indian Institute of Science, Bangalore, have shown that it is possible to enrich groundnuts with more vitamin B1, so that an intake of a smaller quantity of the kernels would meet the daily human requirement of the vitamin. The enriched groundnuts which contain a minimum of 100 micrograms of vitamin B1, per gram of the kernel as against 5-6 micrograms in raw kernels are found to be more palatable and attractive than the unprocessed kernels. They are also superior to some of the yeast preparations in respect of vitamin content. It is estimated that consumption of 10-20 grams of the enriched groundnut kernel per day would meet the daily vitamin requirements of an individual.

Mass Production Method

The process (covered by Indian Patent No. 44594) which has been

worked out on a laboratory scale can be adopted to large scale production without much difficulty. The items of equipment required are simple. The main cost of enriching is the cost of Vitamin B1.

Parties interested in undertaking the commercial development of the process are invited to correspond with Secretary, National Research Development Corporation of India, Mandi House, Lytton Road, New Delhi-1.

Raising Cashew crop in Chingleput forests

The Cashew Regeneration area in Vandalur, which was shown to the Agricultural science Study Mission on 18th November 1956, comprises 4,500 acres of the Vandalur Reserved Forest and is one of 16 such plots of a total of 40,050 acres in which cashew is proposed to be raised in the course of the Second Five-Year Plan. This Scheme has been drawn up in accordance with the recommendations of the Spices Enquiry Committee. This cashew regeneration work is being carried out departmentally. The average cost of raising one acre of cashew plantation works out to Rs. 32 inclusive of wages paid to mazdoors, but exclusive of the cost of supervisory and technical establishment. The estimated cost of the five-year scheme is Rs. 30.32 lakhs and it has been included in the Second Five-Year Plan, to meet the growing demand for cashew-nut and cashew shell oil.

The Soil in the area is sandy loam, but the forest floor has undergone severe sheet erosion on account of faulty management in the past. The climate is tropical with an average annual rainfall of 40 inches and the mean annual temperature is about 82°F. Cashew has been raised successfully in the past on a small scale in this region by the Forest Department.

The Cashew regeneration work is being carried out departmentally and the technique adopted is as follows:—

The area was first surveyed and demarcated with a cut line 6 feet wide. The standing growth was cleared and 2 feet wide strips 33 feet apart were formed. The area was fenced effectively to a height of 4 feet all round

with brush wood. One foot cube pits were dug in the strips at an espacement of 16½ feet. Round each pit saucer shaped depressions were formed. These depressions are 3 feet in radius and slope towards the pit. From these saucers all tree and other plant stumps were removed.

Cashew seeds were dibbled in alternate pits in the month of September. Two seeds were dibbled in each pit so that at least one healthy seedling may result in each pit. Basketed seedlings of cashew obtained from the nurseries raised specially for the purpose, were planted without disturbing the root system in the remaining pits.

One weeding will be done around the pits when these plants become three months old. Replacement of casualties will also be done then. The second weeding and soil working will be done when the plants become six months old. During the second year of the plantations casualty replacement and soil working will be done at the commencement of the South-West monsoon.

For raising the plantations, one mazdoor for every 50 acres and one head mazdoor for every 100 acres have been employed. Thus in an area of 500 acres which is a unit, there will be 10 mazdoors and 5 head mazdoors working daily.

The average cost of raising one acre of cashew plantation is Rs. 32 inclusive of wages paid to the mazdoors, but exclusive of cost of establishment of supervisory staff.

A.I.R. Tiruchirappalli

Rural Programmes for December 1956

Saturday, 1st December 1956—

Thikkutheryatha Katil : Song.
The Adult Literacy Class: Tirukkural—Aruludaimai (Kural Nos. 243 and 244)

Deviyai potriduvome : Song.
National Savings : Discussion.
Weekly review of market rates.
Market rates and water level readings.
Topical discussion ; weather report.

Sunday, 2nd December 1956—

Mannarippu : Discussion.
Grama Kalakshepa Mandapatnil :
Thilakavathiar : Musical discourse
in Tamil by H. Azhaigiamanavala
Naidu.

Market rates and water level readings.
Topical discussion ; weather report

Monday, 3rd December 1956—

Our cattle shed : Discussion.
Folk art : Kaman Dahanam by S.P.
Natarajan and Party
Market rates and water level readings.
Topical discussion ; weather report.

Tuesday, 4th December 1956—

Farm Forum : Discussion : Partici-
pant : M. Subramaniam.
Gnana Chuvadi : Isai Nigazchi.
Tozhil Narayam (3) Thachupattarai
Neelamegham—Serial Skit by
Sukhi.

Market rates and water level readings.
Topical discussion : weather report.

Wednesday, 5th December 1956—

Listeners' Letters.
Poocharam : Songs on Lord Buddha.
Araichikoodam (The latest in re-
search) : Discussion on subjects of
interest and use to farmers.
Market rates and water level readings.
Topical discussion ; weather report.

Thursday, 6th December 1956—

Farm Forum : Discussion—Partici-
pant : N. Sivasubramaniam.
Folk Ballad—Raja Desingu : Part IX.
Namadu Dittam—(9) Welfare of Hari-
jans : Discussion.
Market rates and water level
readings.
Topical discussion ; weather report.

Friday, 7th December 1956—

Ani Alaankaram—(6) Thandai Kolusu:
Musical feature by N. Raghavan.
Irvil Oli: Serial feature on Gandhiji's
life.

Grama Padasalaiyil : Nanranikaka-
digai : Exposition.
Market rates and water level
readings.
Topical discussion ; weather report.

Saturday, 8th December 1956—

Vellaithamarai : Song.
The Adult Literacy Class : Tirukku-
ral—Aruludaimai—(Kural Nos. 245
and 246).

Tennamaracholaiyile : Song
Education in Madras State : Talk in
Tamil by K. Venkatasubra-
maniam, arranged by the Director
of Public Instruction, Government
of Madras

Weekly review of market rates
Market rates and water level readings.
Topical discussion ; weather report.

Sunday, 9th December 1956—

Porukku Vidaigal : Discussion
Grama Chiruvargal : Feature on Five-
Year Plan.

Market rates and water level readings.
Topical discussion : weather report.

Monday, 10th December 1956—

Samathuvapathai : Feature
Folk Art : Villupattu by K. Aiyam
Pillai and Party.

Market rates and water level readings.
Topical discussion : weather report

Tuesday, 11th December 1956—

Farm Forum : Discussion—Partici-
pant : V. Govindaswami
Gnana chuvadi : Isai Nigazchi
Engal Kalatnil (2) Ayan Rajapart
Veluswami—Serial skit by R.
Arumugham.

Market rates and water level readings.
Topical discussion : weather report.

Wednesday, 12th December 1956—

Malnutrition : Discussion
Folk Art : Kolattam
Gramapattum Katchiyum
Market rates and water level readings.
Topical discussion : weather report

Thursday, 13th December 1956—

Farm Forum : Discussion—Partici-
pant : V. Ayyavu Naicker.
Folk Ballad : Raja Desingu—Part I.



Sri C. Subramaniam, Leader of the House in the Legislative Assembly, presenting the
speech of thanks to Sri N. Gopala Menon, Speaker.

Namadu Dittam (10) Welfare of
Women and Children : Discussion.
Market rates and water level readings.
Topical discussion : weather report.

Friday, 14th December 1956—

Rukmangada : Play.
The Village Welfare Association :
Discussion.
Market rates and water level readings.
Topical discussion ; weather report.

Saturday, 15th December 1956—

Kannikaveri : Song.
The Adult Literacy Class : Tiruk-
kural—Aruludaimai—(Kural Nos.
246 and 248).
Thambi Thambi : Song.
Kashmir : Industries : Discussion.
Weekly review of Market rates
Market rates and water level readings.
Topical discussion : weather report.

Sunday, 16th December 1956—

Gramam Povome : Programme of
interviews, folk arts, etc., recorded
at a village.
Market rates and water level readings.
Topical discussion : weather report.

Monday, 17th December 1956—

Pow! Cholera : Discussion.
Folk Art : Kavadi Attam.
Market rates and water level readings
Topical discussion : weather report.

Tuesday, 18th December 1956—

Farm Forum : Discussion.
Gnana chuvadi : Isai Nigazchi.



The Speaker acknowledging the good wishes of the Assembly.

Illaracholaiyil (3) Eliyum Ponnai-
yum : Serial skit by K. P. Gana-
pathi.
Market rate and water level readings.
Topical discussion : weather report.

Wednesday, 19th December 1956—

Listeners' Letters Poocharam Songs
on Lord Buddha.
Inda Pattai Kettanayya ?
Market rates and water level readings.
Topical discussion : weather report.

Thursday, 20th December 1956—

Farm Forum : Discussion.
Folk Ballad : Raja Desingu—
Part II.
Namadu Dittam (11) Welfare of
Youth : Discussion.
Market rates and water level readings.
Topical discussion : weather report.

Friday, 21st December 1956—

Folk Song Lesson.
Irvil Oli—Serial feature on Gandhiji's
life.
The Village Women's Forum : Dis-
cussion.
Kalyana Padalgai.
Market rates and water level readings.
Topical discussion, weather report

Saturday, 22nd December 1956—

Kizhakku manam : Song.
The Adult Literacy Class : Tiruk-
kural—Aruludaimai (Kural.
Nos. 249 and 250).
Vellippasumalaiyin : Song.

Talk in Tamil arranged by the Chief
Engineer, Electricity, Government
of Madras.
Weekly review of market rates.
Market rates and water level
readings on succeeding days also.

Sunday, 23rd December 1956—

Grama Panchayath : Nila Pirivinai
Vazhakku—Feature by N. Vasudev
Varna Mettu : Folk tunes.

Monday, 24th December 1956—

Calf-rearing : Discussion.
Folk Art : Lavani.

Tuesday, 25th December 1956—

Panditha Malaviya : Feature.
Ezhaippangalan—Musical discours
by T. S. Marianandam.

Wednesday, 26th December 1956—

Honey as food and medicine :
Discussion.
Folk Art : Kalla Part songs.
Questions or the air : Discussion on
subjects of rural interest
specially those relating to Five-
Year Plan.

Thursday, 27th December 1956—

Farm Forum : Discussion.
Folk Ballad : Raja Desingu—Part
12.
Namadu Dittam (12) Public Co-
operation : Discussion.

Friday, 28th December 1956—

Bhoomidanam : Feature.
Pattai Kolungal : (Songs on Five-
Year Plan).
Metric system : Discussion.

Saturday, 29th December 1956—

Kattile Kalai eduthu : Song.
The Adult Literacy Class : Tiruk-
kural—Pulanmaruthal (Kural Nos.
251 and 252).
Temadura Tamizhmozhi : Song.
Radio Interview : Panchayat Board
President—Bheti.

Sunday, 30th December 1956—

Urea Nitrate uram : Discussion.
Varna mettu : Folk tunes.
Onre Kulam : Feature on untoucha-
bility.

Monday, 31st December 1956—

Fodder for cattle : Discussion.
Grama Nataka Sabaiyil : Pattukas-
cheri—Play by N. Raghavan.

Public Holidays for 1957

The Government of Madras have declared the following days as public holidays in the year 1957 :—

Tuesday, the 1st January .. .. .	.. .. .	New Year's Day.
Saturday, the 12th January .. .. .	.. .. .	Vaikunta Ekadasi.
Monday, the 14th January .. .. .	.. .. .	Pongal.
Tuesday, the 15th January .. .. .	.. .. .	Mattu Pongal.
Saturday, the 26th January .. .. .	.. .. .	Republic Day.
Wednesday, the 27th February .. .. .	.. .. .	Maha Sivaratri.
Monday, the 1st April .. .. .	.. .. .	Telugu New Year's Day.
Saturday, the 13th April .. .. .	.. .. .	Tamil New Year's Day.
Friday, the 19th April .. .. .	.. .. .	Good Friday.
Thursday, the 2nd May .. .. .	.. .. .	Ramzan.
Saturday, the 29th June .. .. .	.. .. .	Half yearly closing of Bank Accounts. (Not a holiday for other Government offices including non-bank treasuries.)
Tuesday, the 9th July .. .. .	.. .. .	Bakrid.
Wednesday, the 7th August .. .. .	.. .. .	Muharram.
Saturday, the 10th August .. .. .	.. .. .	Avani Avittam.
Thursday, the 15th August .. .. .	.. .. .	Independence Day.
Tuesday, the 20th August .. .. .	.. .. .	Sri Jayanti.
Wednesday, the 28th August .. .. .	.. .. .	Vinayaka Chaturthi.
Monday, the 23rd September .. .. .	.. .. .	Mahalaya Amavasya.
Tuesday, the 1st October .. .. .	.. .. .	Ayudha Puja.
Wednesday, the 2nd October .. .. .	.. .. .	Meeladi Nabi.
Thursday, the 3rd October .. .. .	.. .. .	Deepavali.
Monday, the 7th October .. .. .	.. .. .	Christmas.
Tuesday, the 22nd October .. .. .	.. .. .	Annual closing of Bank Accounts. (Not a holiday for other Government offices including non-bank treasuries.)
Wednesday, the 23rd October .. .. .	.. .. .	
Wednesday, the 25th December .. .. .	.. .. .	
Tuesday, the 31st December .. .. .	.. .. .	

All Sundays and all Penultimate Saturdays except the Penultimate Saturdays in the months in which Mattu Pongal and Deepavali fall will be holidays.



The Malabar Legislators gave a party before taking leave of Madras when the Kerala physical feats featured prominently in the programme.

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32A

A DANCE-DRAMA ON FIVE-YEAR PLAN

T. D. Kuchalakumari translated into lilting songs and light-footed dances, Sri S. D. S. Yogi's "Bhavani", before an enthralled audience at Museum Theatre, Madras.



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12/6/04.