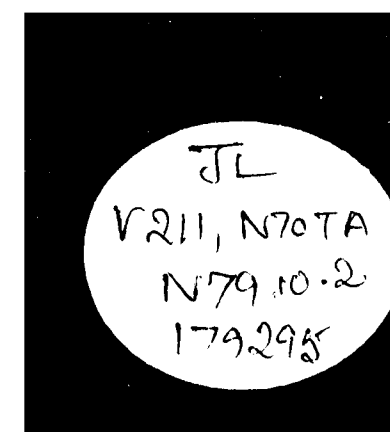


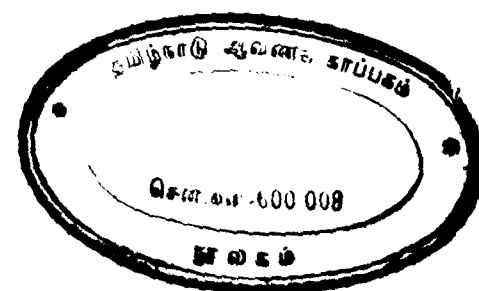


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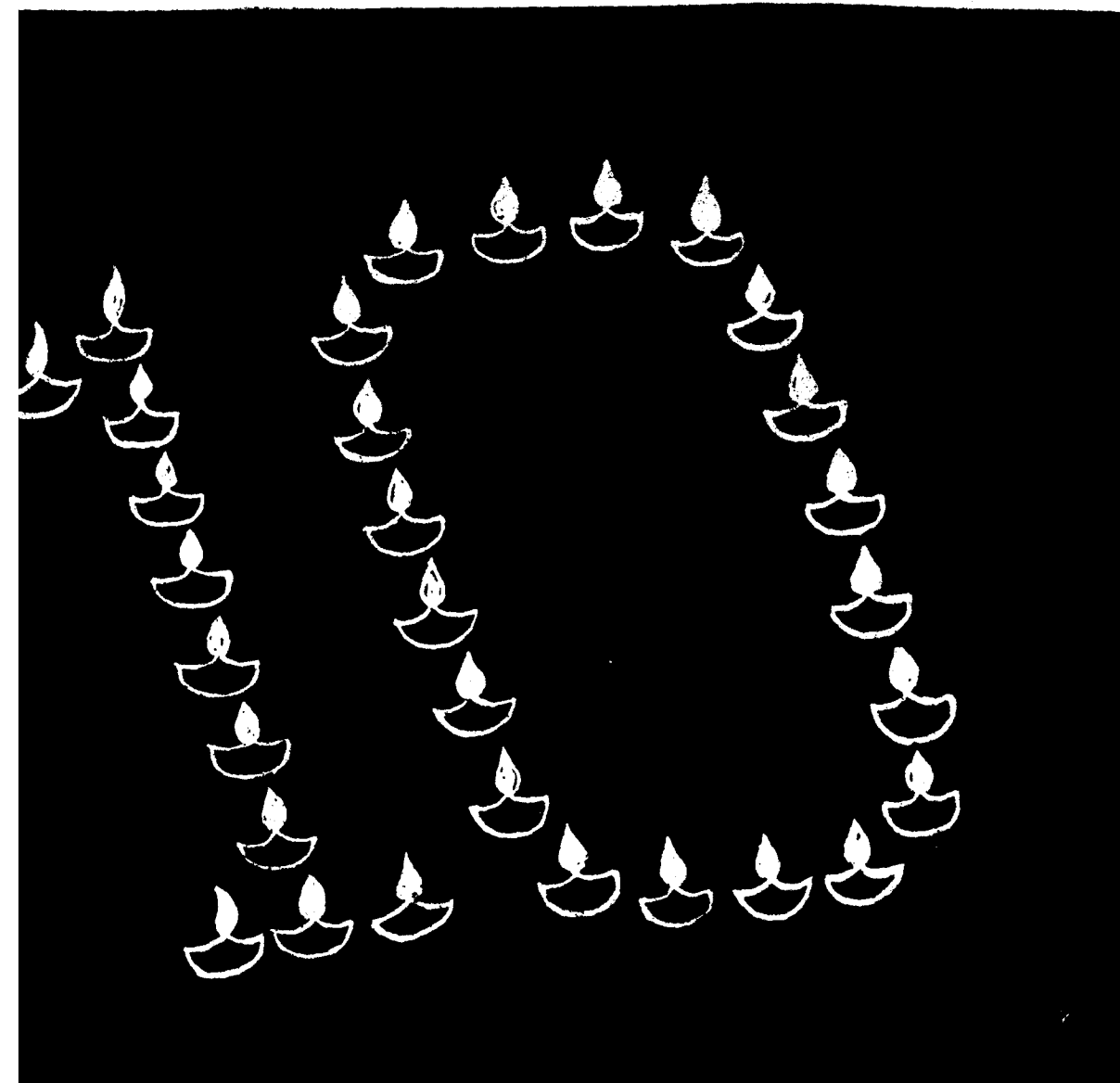


Tamil Arasu

01 AUGUST NO
x 2



WE COMPLETE NINE
MARCHING ON TO TENTH
GLORIOUS YEAR



SURPLUS

Leads to export

D. Kondaivelu,
MINISTER FOR AGRICULTURE
AND IRRIGATION

ABOUT 2,000 years ago, the great Tamil Poet, Thiruvalluvar, in his Thirukkural, has stated that Agriculture, though laborious is the most excellent way of life, for people who go about in search of other employments have to depend finally on the farmer for food. He has also pointed out that Agriculturists are, as they were, the linch pin of the world, for they support all other workers who cannot till the soil.

Dr. Anna, our affectionate elder brother, described the farmers as "Doctors who can cure the burning sensation of hunger and starvation."

Realising the importance of Agriculture and farmers as stated by Thiruvalluvar and Dr. Anna, the present benign Chief Minister Thiru M. G. Ramachandran is giving top-priority to Agriculture and taking keen interest in the welfare of the farming community from the time of assuming office as Chief Minister. He aims to improve the standard of living of the farming community who were subjected in the past to the scorching sun, torrential rains, trembling cold and neglect. He is always sympathetic towards the farmers because the Indian farmer is born in debts, lives in debts, and dies in debts. He has not only provided all facilities to the farmers but also given them a number of concessions so as to reduce the burden of debts.

Reduction in Power Tariff :

Our Chief Minister has reduced the power tariff for Agricultural consumption from 16 paise to 14 paise per unit on the next day of

assuming office even before the farmers made demand. This shows the sympathetic nature of our Chief Minister towards the farmers. But our farmers were not satisfied with this reduction. Again, our Chief Minister has reduced the power tariff from 14 paise to 12 paise for small farmers and fixed it at 14 paise for other farmers. Due to this concession, the Government is incurring a loss of Rs. 6 crores per year. The meter charge has been reduced from Rs. 5 to Rs. 4 resulting in a loss of Rs. 1 crore annually.

Relief for 31 lakhs of Farmers :

So far no Government have come forward to analyse the burning problems of the farmers and solved them. The present Government of



Tamil Nadu have set up a High Power Committee and on their recommendation, the Government have granted concessions to the tune of Rs. 40 crores. About 31

lakhs of farmers have got relief as a result of the concessions ordered by the present Government.

But our farmers' leaders are not yet satisfied. They want total write off of all loans. Is it possible for any Government? I request you to all to kindly think over on this.

The present Government is always ready to have discussion with the leaders of the farmers on the farmers' problem. But I request the farmers' leaders not to indulge in violence.

Thanks to the Farmers :

I would like to thank our enterprising farmers through "TAMIL ARASU" on behalf of the Government of Tamil Nadu for their enthusiastic response to our appeal for increased production. The Tamil Nadu farmers, known for their intelligence and hard work, have increased the Agricultural production of the State, since the inception of our Ministry. As a result of the efforts that farmers and farm-labourers have put in and the resources that the Government have invested, the State has today passed from a stage of dependance on external source of supply to a situation of surplus in 1978-79. The production of food grains has reached a high figure of 87.25 lakh tonnes in 1978-79 as against 73.90 lakh tonnes in 1976-77.

Similarly, the production of Commercial Crops has reached a high figure of 37.32 lakh tonnes in 1978-79 as against 30.53 lakh tonnes in 1976-77. Our target for current year is 88.73 lakh tonnes.



of foodgrains and 40.10 lakh tonnes under Commercial Crops.

When one compares the food situation of June 1975 or June 1976 or June 1977 to the present situation of surplus, he will not hesitate to say that the present Ministry of Tamil Nadu has strived hard to increase Agricultural production and to hold the price line within limits.

None Can Deny

Tamil Nadu has witnessed an unprecedented drought during the year 1977-78. The disastrous floods of the past two years had caused heavy damages in Tamil Nadu and the farmers were the worst affected. Inspite of droughts and floods good progress has been made in Agriculture in Tamil Nadu during the past two years. None can deny this! How was it possible in a short span of time before which Agricultural production was not satisfactory? It is by the enthusiastic encouragement of the present Government and the cooperation by the farmers that made the great achievement possible.

Increase in Rice Productivity

We have achieved substantial progress in stepping up the produc-

tion of rice and millets during the past two years and even during adverse seasonal conditions we were self-sufficient in rice and millets. Based on the research work done by the Department of Agriculture, a programme of low cost high efficiency technology has been introduced for paddy crop to reduce the cost of cultivation and to increase the productivity. This has been achieved by (i) reducing the quantity of inputs, (ii) increasing their efficiency and (iii) using new low cost inputs which increase production. The new technology consists of the following aspects :

(i) Producing super seedlings.

(ii) Use of 'Pai Nursery'.

(iii) Bio-fertilisation with blue-green algae.

(iv) Zinc sulphate application.

(v) Better placement of fertilisers.

(vi) Better placement of insecticide granules.

Due to the adoption of this new technology the yield per acre of paddy which was 1,277 kg. during 1976-77 was increased to 1350 kg. in 1978-79.

Some of the Achievements

Since fertilisers play a major role in stepping up agricultural production, the present Government of Tamil Nadu have taken necessary steps to supply adequate fertilisers in time. During the year 1978-79, an additional 500 new retail points were opened so as to meet the demand of villagers. A quantity of 2.90 lakh tonnes of nitrogen, 0.94 lakh tonnes of phosphoric acid and 1.07 lakh tonnes has been distributed during the last year. Actually there was no scarcity of fertilisers in Tamil Nadu during the last year.

ENTREPRENEURS! FEED YOUR NEED THROUGH TIIC's SEED CAPITAL SCHEME!

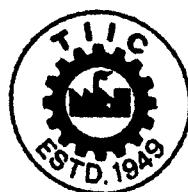


Soft loan on soft terms!

TIIC provides financial assistance to projects in the Small Scale Sector under Seed Capital Scheme. Industrial Units in rural and backward areas, technocrats, export oriented units and industries with high employment potential will receive preferential treatment. Artisans and Craftsmen will also be eligible under this scheme.

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- Moratorium-5 years

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The Managing Director,

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The Department of Agriculture has released 16 crop varieties during the year 1977-78 and their seeds were multiplied and made available to farmers for large scale cultivation. The department has also released 12 new varieties during the last years.

As a result of the sustained efforts of the Scientists of Tamil Nadu Agricultural University, 8 crop varieties during 1977-78 and 13 crop varieties during 1978-79 were released. On the whole the Tamil Nadu Agricultural University have evolved 49 better crop varieties and ideal crop management techniques.

A giant orchard, largest of its kind in Asia, has been established at Vallatharayan Kottai of Pudukottai



During the year 1977-78 an area of 5700 hectares of Agricultural lands in nine districts were severely affected due to sand cast caused by the floods. The reclamation works were taken up on war footing mobilising the available men and machineries and the works were completed in record time. An amount of Rs. 94 lakhs were spent up to 31st July 1978.

District during the last year. In order to increase the coconut production, 14.30 lakh numbers of coconut seedlings were distributed during 1978-79.

Three Farmers Training Centres at Ootacamund, Ramanathapuram and Salem were established during the last year.

During the year 1978-79 the Agricultural Engineering wing of the Department of Agriculture has sunk 4,692 tube wells and 2,587 Filter points, 2573 wells were deepened. In addition, boring in 2563 wells were undertaken. In Thanjavur district, 59 Community wells have been sunk during the last year.

Under Soil conservation scheme an area of 42,820 hectares have been covered during 1978-79.



Similarly during the last year also an area of 2500 hectares were affected in nine districts due to the floods in November and December 1978. The reclamation works were completed.

A new labour saving equipment called 'Gravitor applicator' for better placement of fertilisers and insecticides for paddy has been developed by the Department of Agriculture during the last year. It economises on the use of fertilisers and insecticides without loss in efficiency. This equipment costs only about Rs. 50 and can cover one acre in five hours.

A multi-purpose equipment has also been evolved by the department for use in dry tracts. This has been named as the 'Poor Man's tractor' and it is able to cover 4 to 5 acres per day depending on the size of the bullocks used. This implement can be used for sowing, placement of fertilisers and intercultivation. The cost of the implement is about Rs. 500.

NEW SCHEMES IN 1979-80.

Apart from the existing schemes under implementation, the following

RAISE GREEN MANURE IN PADDY FIELDS



new schemes are proposed to be implemented during 1979-80.

Quality seed is the basic need for increasing agricultural production. In order to supply quality seeds to the farmers, a separate Independent Seed Certification Directorate is being set up and it will function very soon.

Similarly a separate Directorate of Horticulture is being set up at Dharmapuri so as to help the farmers in the cultivation of Horticultural crops.

This Government is trying to form an Oil seed Development Corporation at a cost of Rs. 15 crores with the financial aid from National Dairy Development Board. This Corporation is likely to function from coming September and it will help to cultivate groundnut in about 6 lakh acres.

DIVERSION OF WEST FLOWING RIVERS

The present Government is sincerely trying to provide irrigation facilities to drought affected areas of Tamil Nadu. On the initiative taken by this Government, Government of India have constituted a Technical Committee to examine and suggest schemes for diversion of surplus waters of the west flowing rivers to the eastern side to benefit the drought prone areas. Tamil Nadu is represented on this Committee. The Committee has met five times and examined the various aspects of the problems and also the preliminary proposals submitted by Tamil Nadu and the preliminary notes furnished by Karnataka and Kerala. The discussions are to be continued.



Studies indicate that it will be possible to divert 14 TMC from the Pandiyar—Punnapuzha river to benefit 1,40,000 acres in Coimbatore district, particularly in Gopi and Avinashi Taluk. Similarly, another 5,00,000 acres will be benefited in other districts, if we succeed in our attempts of diverting West flowing rivers to Tamil Nadu.

Better Price for Agricultural Produce

With a view to help the farmers in securing a better and stable price for their produce, this Government have created a separate Directorate for Agricultural marketing. There were only 140 Regulated Market and 11 Market Committees before 1977. Now there are 176 Regulated Markets, 22 Sub-Markets and 13 market committees. There are proposals to establish another 25 Regu-

lated markets during this year. The policy of the present Government is that there should be a regulated market for every 16 KM to enable the farming community to market the agricultural produce without much difficulty. The Government is trying to get a world Bank aid for a sum of Rs. 70.2 crores to develop all the 220 potential Regulated markets in Tamil Nadu.

Chief Minister's Gesture

You know pretty well that our Government is again and again pressing the Government of India to fix a higher price for paddy as per cost of production on par with wheat. Recently, our Chief Minister has announced that a sum Rs. 20 per quintal will be paid by the State Government over and above the price fixed by the Government of India for Paddy. This Government is also persuading the Government of India to fix a higher price for Sugarcane.

Various Programmes including the Schemes for increasing the irrigation potential have been launched by the Government. With the Cooperation of the farmers and the successful implementation of the various scheme under progress, Tamil Nadu will be able to produce not only the food, sugar, cotton and vegetable oils required by the people of this State but also considerable surpluses for export in the immediate future. The Government is ready to help the farmers in all possible ways.



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EP-OIPR-435.

Cauvery

A great river of Tamil Nadu, famous alike for its traditional sanctity, its picturesque scenery, and its utility for irrigation. Rising on the Brahmagiri, a hill in coorg, high up amid the western ghats, it flows in a generally southeast direction across the plateau of Mysore and finally pours itself into the Bay of Bengal in the Tamil Nadu district of Tanjore. The total length is about 475 miles. It is known as the "Dakshina Ganga" or the "Ganges of the South", and the whole of its course is holy ground.

According to the legend preserved in the Agneya and Skanda Puranas, there was once born upon earth a girl named Vishnumaya or Lopamudra, the daughter of Brahma; but her divine father permitted her to be regarded as the child of a mortal called Kaveramuni. In order to obtain beatitude for her adoptive father, she resolved to become a river whose water should purify from all sin. Hence it is that even the holy Ganga resorts underground, once in the year, to the source of the Cauvery, to purge herself from the pollution contracted from the crowd of sinners, who have bathed in her waters. At Tala Kaveri, where the river rises, and at Bhagamandala, where it receives its first tributary, stand ancient temples frequented annually by crowds of pilgrims in the month of Tulamasa (October, November).

The Cauvery enters Tamil Nadu at the falls of Sivasamudram, and forms the boundary between the districts of Coimbatore and Salem for a considerable distance, until it strikes into Tiruchirappalli. In this part of its course, near Alambadi in Coimbatore, there is a remarkable rock in the middle of the stream which throws up a column of perpetual spray, though the water round it is to all appearances quite unbroken. It is called the "smoking rock", and the people of that locality declare that the spray is due to the river pouring into an enormous chasm in its bed. Close under the

historic Rock of Tiruchirappalli the Cauvery breaks at the island of Srirangam into two channels (crossed by masonry road bridges), which irrigate the delta of Thanjavur, the Garden of Tamil Nadu. The more northerly of these channels is called the Kollidam; that which continues the course of the river towards the east preserves the name of the Cauvery. On the seawardface of the delta are the open roadsteads of Tarangambadi, Nagapattinam and Karaikal.

In Tamil Nadu the Chief tributaries of the Cauvery are the Bhavani, Noyil and Amara-vati.

The only navigation which exists on the Cauvery is carried on in coracles of basket-work, but the Kollidam is navigable for a few miles above its mouth by Vessels of 4 tons burden.

Although the water of the Cauvery is utilized to a considerable extent for agriculture in Coimbatore and Tiruchirappalli districts, it is in its delta that its value for irrigation becomes most conspicuous. At Srirangam, first above the point where it bifurcates to form the Kollidam, the flood discharge is estimated at 313,000 cubic feet per second. The problem of utilizing this storehouse of agricultural wealth was first grappled with by one of the Chola Kings, who constructed a massive dam of unknown stone, below the island of Srirangam, to keep the Cauvery separate from the Kollidam, and drive it towards Thanjavur district. This is the "Grand Anicut."

Irrigation is one of the glories of Thanjavur. Though blessed with fertile soil in most parts of the district, not much progress could have been made had it not been for the presence of perennial Cauvery and the numerous irrigation projects that have been completed.

The Grand Anicut is the oldest and the most significant and is reported to have been constructed during the Sangam Age of Chola

period. This is built at the junctions of the rivers Cauvery and Kollidam, about ten miles off Tiruchirappalli.

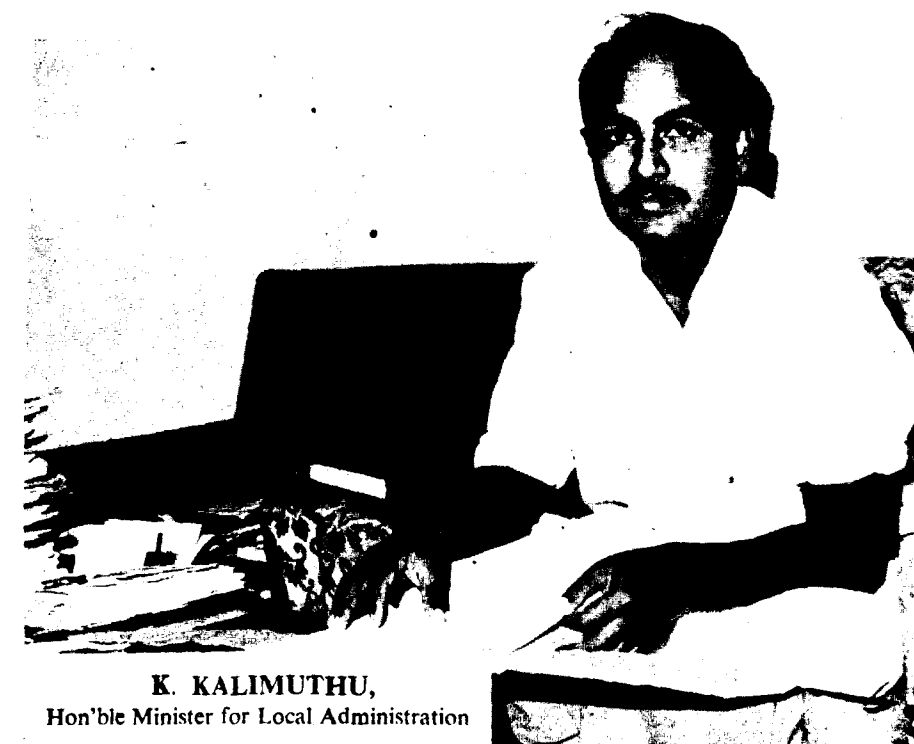
The anicut was first made of roughly dressed granite stones set in mud covered with an outer layer of granite blocks set in lime mortar. Its length was 1,080 feet and breadth 40 to 60 feet with a depth of 15 to 18 feet. Afterwards this has undergone numerous improvements. In 1806 it was raised further and in 1830 the anicut came to be provided with sand scouring sluices. Some fifty years later the stones were renewed to be replaced by automatic folding shutters. These were soon replaced by lifting shutters (1899).

The main purpose of this anicut was to check and control the waters running to waste into Kollidam. The attempt to stop this wastage continued for some time with no consequence. The flow from the Cauvery was considerably reduced and lands of the deltaic regions came to be affected.

Mettur dam is one of the biggest in India with length measuring over 5,300' and height 214' above the deepest foundations. The project has cost about 663.6 lakhs of rupees and has been designed to ensure steady supply of water for irrigation.

The utility of the scheme is manifold. By the storage of flood waters in the reservoir the dam has made it possible to provide sufficient supply of water for agricultural purposes during the inter-monsoon periods and also to safeguard cultivation against the unforeseen vagaries of nature. Even in times of drought the project ensures an even supply and distribution of available waters, thus preventing avoidable wastage. Moreover, it enables the agriculturists to control and regulate their farm operations taking into account the availability of water. Apart from these it also acts as a shock absorbent against the onrush of Cauvery in all its fury during the North-East monsoon period causing serious damages to crops and lands.

MEET THE CHALLENGE



K. KALIMUTHU,
Hon'ble Minister for Local Administration

The General concept of community development is over all development of the rural areas and attainment of self-sufficiency. However, I feel that it is only the people of the villages who are perhaps more aware of their needs and who can carry out programmes effectively; especially the youth and the women. Thus it is only when the latent leadership qualities in these persons are brought out and given shape, plans drawn up and implemented, that the villages will progress and prosper.

The daily needs and living standards are increasing every day. There is no end to them. Therefore growth is a continuous process. Politics, caste, religion,

riches or poverty have no room to play. The rural population should extend their whole hearted co-operation for the progress of the rural areas and this should be their main aim. I wish that they extend their co-operation to all Government Programmes and undertaking.

In Tamil Nadu, the Panchayat Presidents are elected directly by the electorate, unlike in other states. This system averts squabbles and jealousies. This system will be followed in electing the Union Presidents also.

As soon as this Government came to power, it has taken steps to solve the problem of drinking water facilities on a permanent basis. I would like to categorically state that there will not be a single dwelling without drinking water facilities. Drinking water facilities will be provided to all the villages which have no reliable source of their own or in their proximity and the scheme is nearing completion. So far 5,783 dwellings have been provided with.

It is a matter of pride that a village of Tamilnadu has been selected as the best village and a grama sevika as the best grama sevika on a national level.

Under the three-tier system of Panchayat Administration envisaged in the Tamil Nadu Panchayat Act, 1958 and by the District Development Councils Act, each Panchayat Union has a community development block co-terminous with the jurisdiction of Panchayat Unions. The Panchayat Unions in this state, not only perform civic functions but also act as agents of the state government to implement the development schemes which are capable of execution at block levels. An important procedural change introduced at that state was the formulation of Panchayats Development Schematic Budget through which funds are available for different development schemes having a bearing on rural development were pooled together and made available to Panchayat Unions for utilisation. This innovation apart from presenting an integrated framework for execution of local development programmes,





has also contributed to the generation of local contribution by the beneficiaries to the various schemes. The Panchayat Development Schematic Budget thus spells out clearly to the local bodies the financial resources and grants and aids the development of the Panchayat Unions. The larger the contribution of the local people, the greater will be the local development budget of the Panchayat Unions.

The organisation of the Panchayats, Panchayat Unions, Financial resources administration etc., in Tamil Nadu have drawn the admiration and attention of the people of other states.

In other states the various departments draw up their respective plans without including the Rural Development Department. This results in misunderstanding between the Rural development organisation and Government Department.

Here, Extension Officers Co-ordinate with the Block Development Officers and carry out the programmes successfully. This averts mistakes and difficulties.

The work of the District Development Councils also come in for praise.

The "whole villages development scheme is" under implementation in 4 villages in Tirunelveli District. The object of this scheme is to attain progress of the entire rural community and to solve their problems. The scheme will be implemented under various circumstances and with the experience thus gained will be emulated for the whole country. Attention will be given first to the agriculture sphere and later the others.

The success or otherwise of the Panchayat Administration revolves mainly on the active Co-operation from the rural population. With the active and whole-hearted willingness of these people, the estimated target can be achieved within the least period possible.

To conclude, it may be said that the threeter system of Panchayat Administration functions quite satisfactorily and the task before the administration now is to shape and face tomorrow as it is well equipped to meet the challenges of the day.

IN Tamil Nadu, Agriculture continues to be the prime sector and the annual variation in the State income are governed significantly by the agricultural production only. Bringing new virgin lands for agricultural use being limited the solution lies in increasing the productivity by taking recourse to multiple cropping programmes utilising the High Yielding Varieties and inputs like seeds, fertilisers, pesticides etc. Plus, a notable beginning has been made to formulate profitable cropping systems with suitable crop production techniques for the economical use of land, water etc. in the different agro-climatic regions of the State. The Department of Agriculture is the major agency heavily involved to bring the required changes in the field conditions. With the help of a close net work of Experiment Stations and a system of Adaptive Research Trials a breakthrough is being achieved

in solving field oriented local problems. Dry farming is given importance and the constraints are tackled by implementing the programmes of rain water conservation, land shapping, fertility improvements, mixed and multiple cropping, utilization and creation of community assets like percolation ponds, community wells etc.

The table below gives the production details of major crops of Tamil Nadu.

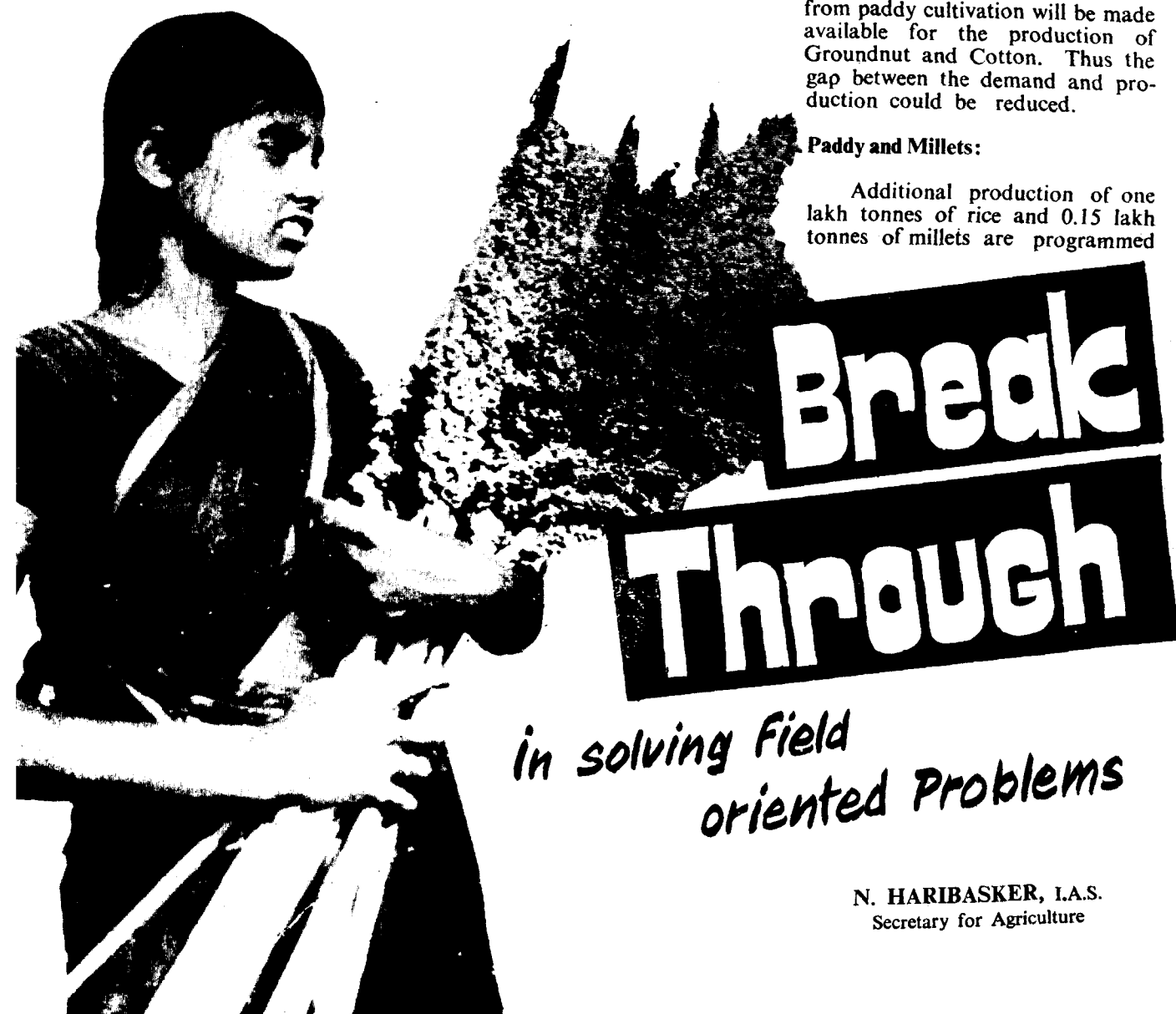
No. Names of the Crop	Production in lakh tons	
	1970-71	1978-79
1. Rice	50.07	64.00
2. Millets	15.04	20.00
3. Pulses	1.33	3.25
4. Oilseeds	10.36	14.07
5. Cotton (Bales)	3.23	4.96
6. Sugarcane(Gur)	10.74	19.50

Considering the past achievement it has been projected to achieve 88.75 lakhs tonnes of food grains and 36.45 lakh tons of commercial crops during 1979-80.

Significant progress have been made in the production of Rice and Millets in the past few years. Even during the years of natural calamities self-sufficiency was attained, as far as Rice and Millets are concerned. By intensifying the cultivation in the potential pockets and increasig the unit area production, the other available lands can be used for the cultivation of commercial crops which could supply raw materials to the industries. Hence in the ensuing year the production of rice will be increased from 64 Lakh tons to 65 Lakh Tons by increasing the production efficiency of the crop in all possible ways. At the same time the area under paddy will be reduced from 27 lakh hectares to 26.5 lakh hectares and the 50,000 hectares thus diverted from paddy cultivation will be made available for the production of Groundnut and Cotton. Thus the gap between the demand and production could be reduced.

Paddy and Millets:

Additional production of one lakh tonnes of rice and 0.15 lakh tonnes of millets are programmed





through the introduction of new High Yielding Varieties and hybrids and by bringing new areas under their influence.

Pulses:

The present area of 11 lakh hectares under pulses crop will be stepped upto 11.60 lakh hectares during 1979-80. The additional area will be covered by bringing pulses under (1) pure crop (2) Mixed Cropping and (3) Rice fallows. The production will be boosted to 3.58 lakh tonnes by advocating improved techniques and adequate timely supply of inputs.

Oilseeds:

To meet the ever increasing demand for edible oil it is proposed to step up the production of oilseeds from 14.07 lakh tonnes to 16.03 lakh tons. The area under oilseeds will also be increased from the present level of 13.37 lakh hectares to 14.57 lakh hectares. The increase in area will be mostly under irrigated condition where the productivity is high. New techniques like application of micro nutrients and Gypsum will be intensified to increase the production.

Stress will be laid to increase the area under coconut and to increase its productivity. It is proposed to distribute 13 lakhs of coconut seedlings during 1979-80, which is a lakh increase over the previous year distribution. To meet the increased demand for Tall x Dwarf varieties a scheme to pro-

duce one lakh T x D seedlings has been started in Pattukkottai area of Tanjore district.

Cotton:

Present production of 3.75 lakh bales from 2.90 lakh hectares will be increased to 4.40 lakh bales by increasing the area to 3.50 lakh hectares. To achieve the above targetted level 100 percent coverage will be aimed at under (i) use of improved seeds (2) fertiliser application (3) adoption of plant protection measures and (4) improved agronomic practices.

Sugarcane:

During the year 1979-80 the area will be stabilized at 1.45 lakh hectares with production aimed at 19.67 lakh tonnes of gur. This will be mainly achieved by saturating the area under sugarcane, with High Yielding Varieties through systematic seed multiplication and distribution programme.

Inflow of outputs:

Effective steps were taken to supply the seeds, fertilizers and pesticides in right time in right quantity and in right quality. During 1979-80, it has been programmed to supply 9500 tonnes of paddy 275 tonnes of sugarcane, 480 tonnes of cholam, 160 tons of Maize, 175 tons of Ragi, certified seeds to the farmers. The

offtake of fertiliser during 1979-80 will be increased to 3.40 lakh tonnes of Nitrogen, 0.90 lakh tonnes of phosphoric acid and 0.90 lakh tonnes of Potash.

In addition, the use of organic manures will be augmented by distributing a quantity of 1000 M.Ts. of green manures seed. Preparation and use of Blue Green Algae and application of micronutrients will be intensified during 1979-80

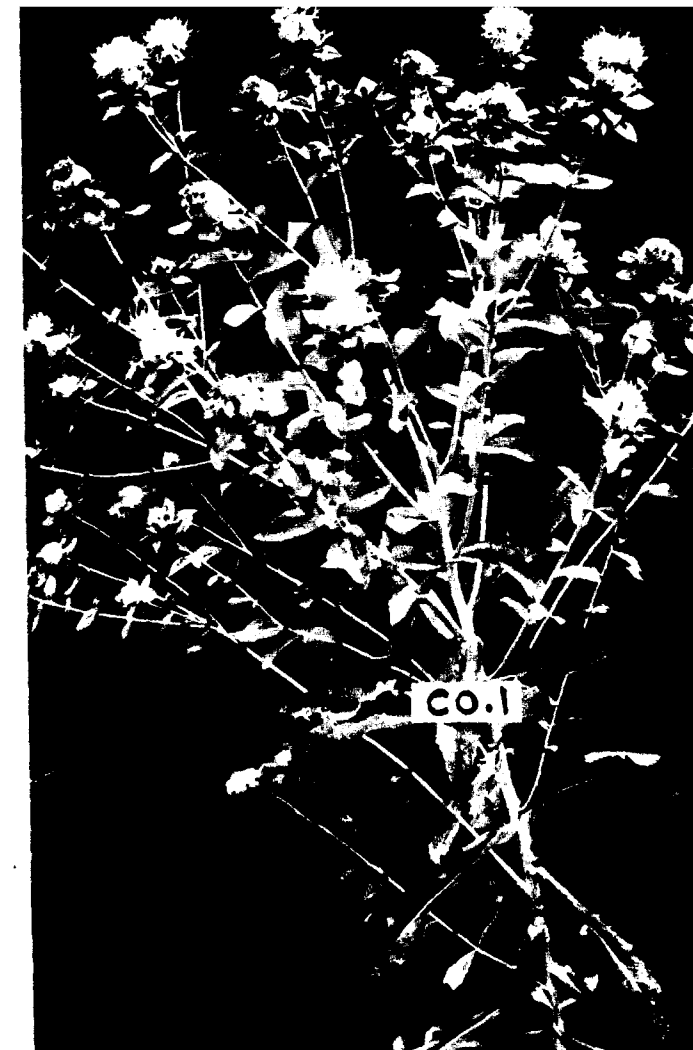
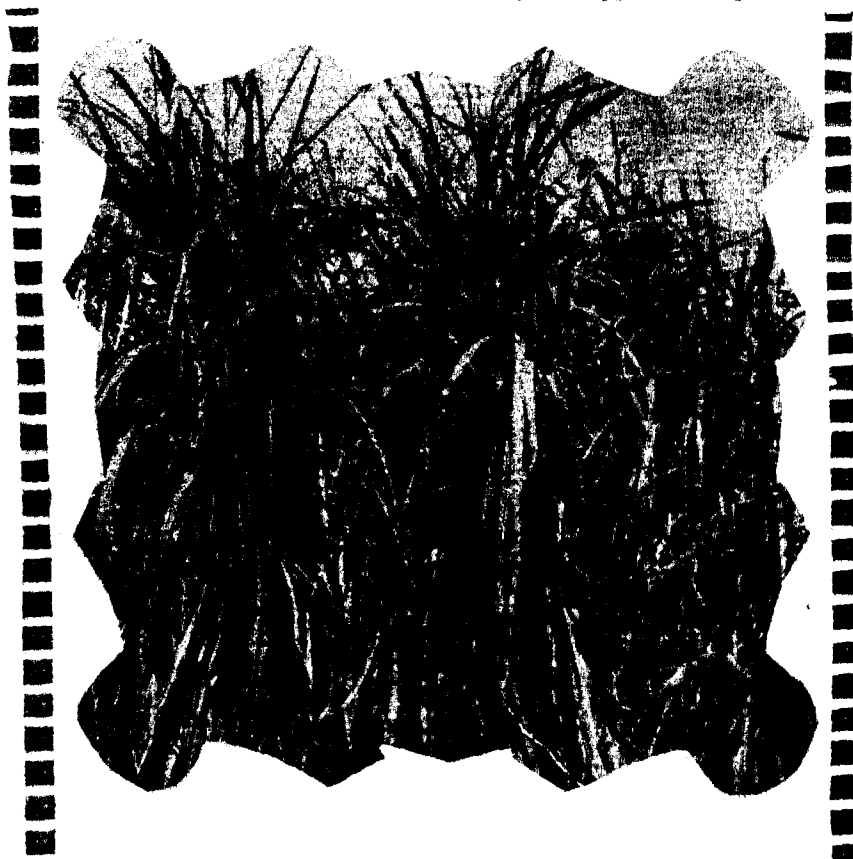
Plant protection plays a vital part in the Crop Production. During 1979-80 it has been programmed to stock sufficient quantities of required pesticides and distribute to the farmers. With the assistance of the 7 Mobile Service Units and the one Plant Protection Squad at Thanjavur district, it is programmed to hire out sprayers to the farmers.

New Varieties:

The department has released six varieties of paddy, three varieties of millets, two varieties of pulses and one oilseed variety. These varieties possess peculiar qualities suited to the different agroclimatic situation of this state and the farmers could choose any one as per their choice.

Dry Farming:

Attention is bestowed on dry farming to support a large number



of rural poor with modern technology.

Demonstration plots in large extent in dry tracts each covering 1000 acres on watershed basis have been organised during this year. One to two such demonstrations in each district has been planned during this year.

Land Development:

Tractors and Bulldozers will be put to work for 2,50,000 hours during the year 1979-80 to level an area of 7000 hectares and to plough an area of 22,500 hectares. To tap the ground water, it is programmed to sink 4,300 tube wells and 2,500 filter point tube wells besides deepening

2,700 existing wells and bringing additional area under irrigation and supplementing irrigation during 1979-80. It is also programmed to undertake boring in 2200 wells to increase the present yield. Under soil conservation programme an area of 42,820 hectares were brought under the scheme in plains and Hilly tract of this State. It has been programmed to bring out 60,000 hectares during the current year under the above scheme.

Increased Gingelly production under Lower Bhavani Project:

The Lower Bhavani Project was thrown open for a third crop for the first time during this year. This has facilitated the farmers to

raise 32,000 hectares of Gingelly crop. 16,000 tons of Gingelly valued Rs. 6, crores was produced this year benefitting the farmers of the area.

Irrigation from Mettur Dam :

The Mettur Dam was opened for irrigation on 12th June this year. Such an early release was done 12 years back only. This early opening is expected to benefit the farmers of Thanjavur delta to raise 2 lakh hectares of Kuruvai crop.

Training:

With a view to popularise the everchanging technological developments among the farmers training centres are functioning in all districts of Tamil Nadu. About 30,000 farmers will be trained during this years by these Farmers Training Centres.

Thus Tamil Nadu is marching ahead with all determination and development in the farm front. The Development of appropriate technology through research, dedicated extension activities, training programmes, Government assistance and close cooperation of the farmers indicate a bright future in the farm front in Tamil Nadu.



T. V. VASUDEVAN, I. A. S.,
Secretary for R.D.L.A.

A NEW 1

The wheel of nature has created a cyclic necessity for mankind to work to eat and to eat to work. This wheel has been in operation ever since the days of the creation of man and is eternal. It can have no rest.

When a man is hungry he is induced to think of work. The thought thus translated into action brings forth cash and paper notes which—helps to buy food stuffs suitable for one's needs. Hunger is appeased. Hunger which induces the—thought of work gets appeased and now the thought of rest supervenes. When hunger reaches forth like the morning sun such rest has to evaporate like the early morning dew. Again, the thought of work bubbles up at the end of rest.

To remove the obstacles between work and food, the "food for work plan" was evolved.

The "Food for work Programme" was started by the Central Government during 1977. Under this programme, the Central Government supplied Wheat and Maida free of cost to the states. The object of this programme is to create permanent social services.

Tamil Nadu, mainly a rice consuming area was not able to benefit through this scheme because only wheat was supplied.

Therefore the Government of Tamil Nadu thought that it would approach the Government of India requesting the supply of rice, so that the food for work plan may be implemented for the benefit of the rural public.

Our Government was victorious after—relentless efforts. Accordingly, a request was made for 66,300 tonnes, of rice for distribution in Tamil Nadu. The Central Government has sanctioned an amount of 47,000 tonnes for the year 1979-'80. Already 30,000 tonnes have been received.

The Chief objectives of this programme :

- (1) it induces the rural people to work briskly, shaking off lethargy,
- (2) to maintain irrigation works and roads as permanent properties.
- (3) to protect public works properly,
- (4) to provide the workers with foodgrains from the stock.

The food for work scheme differs from other schemes. The foodgrains are given to the workers in

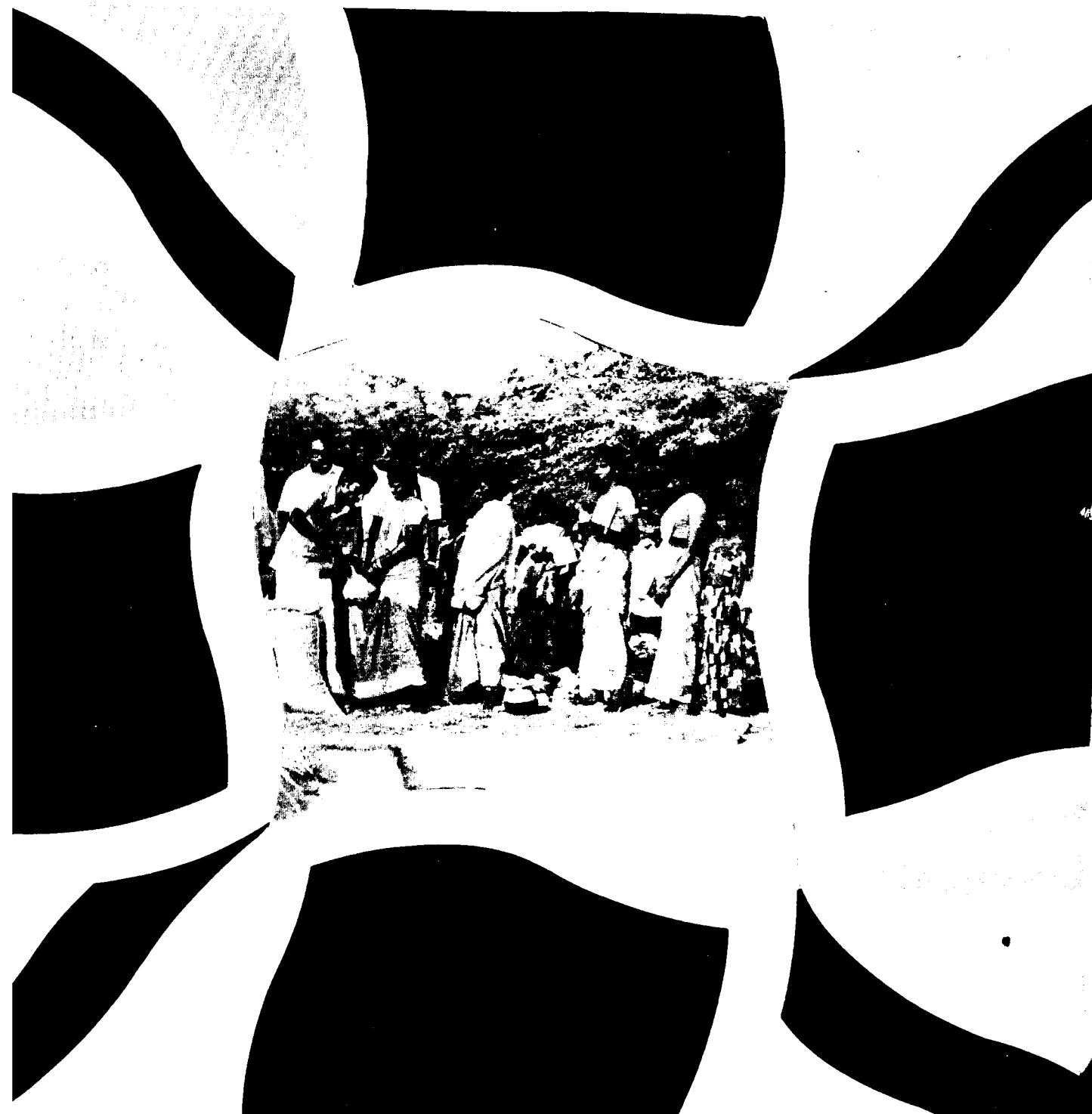
person. There is no room for touts or contractors. The foodgrain will not be distributed through contractors in any situation. As a result, the workers get benefitted in a large measure from the wages for their work.

Though the Central Government provides the foodgrains, the responsibility of implementing the scheme lies with the State Governments.

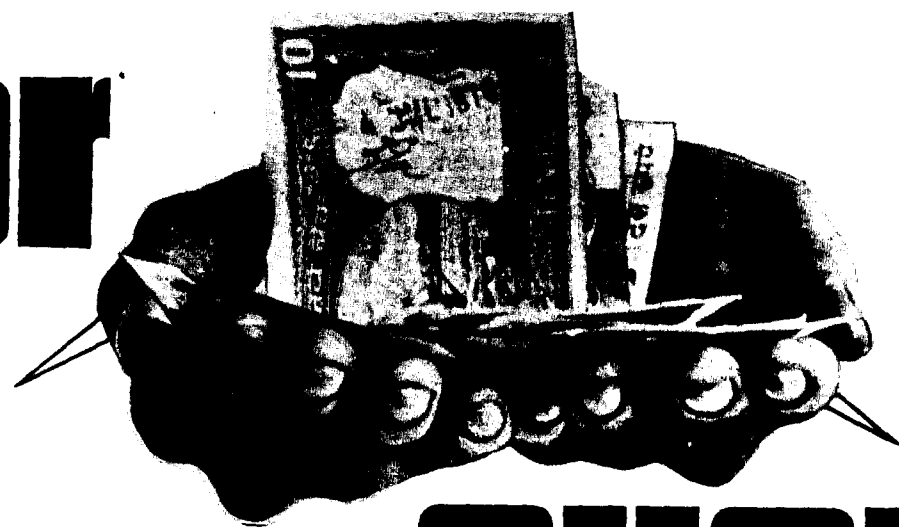
Major and minor irrigation works are created through this scheme. The irrigation works already in existence are improved further. The work of preventing floods is expedited. The ups and downs in an area

is removed and leveled. The land is made ready for tilling. Plans for minor dam works are not shelved but implemented. School buildings come up. Roads are improved. Transport facilities to interior places are improved.

As far as Tamil Nadu is concerned a number of schemes are being implemented. As a result some thousands of working class benefit daily. This scheme aims to create a spirit that public property is own property in the minds of the people, raise the economic standard of the people, mitigate inflation, remove the disparities between the rich and the poor, and therefore the scheme will be a new milestone in the development of the villages.



OVER RS 75 for



every citizen of Tamilnadu

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**TIDCO—INVESTING FOR
BRIGHTER TODAYS &
TOMORROWS**

TNAU MARCHES ON



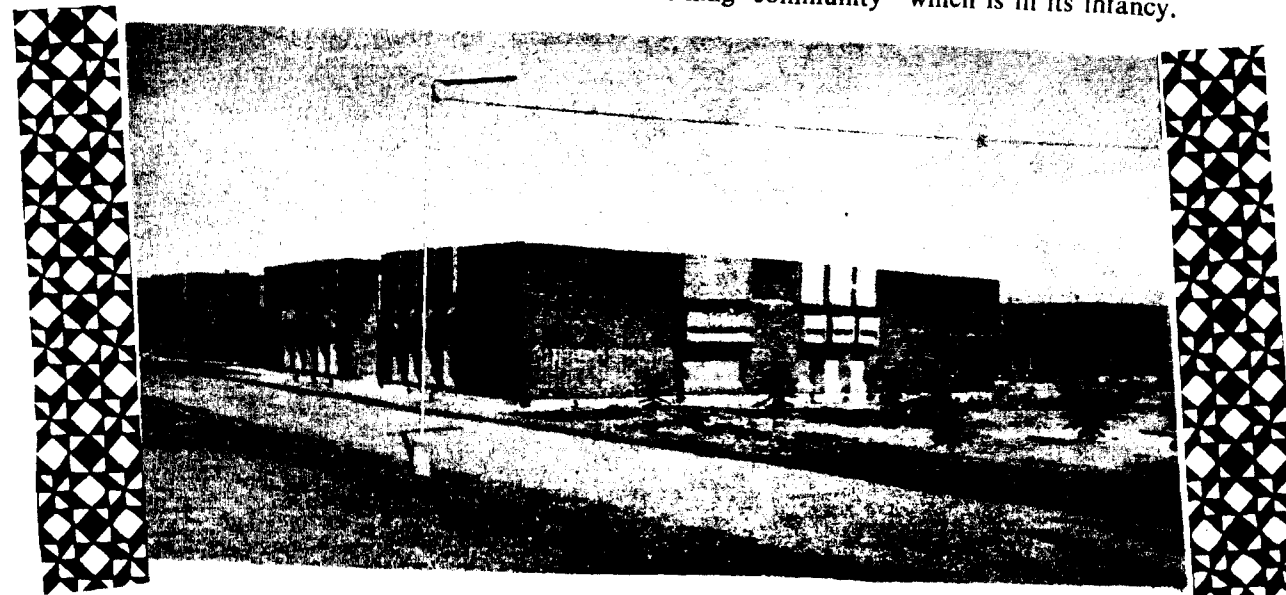
A. VENKATARAMAN, I.A.S.,
VICE—CHANCELLOR,
Tamilnadu Agricultural University.

Rural development largely depends upon availability and adoption of innovations suited to the socio-economic situation of the people. Education enables development of innovations and facilitates faster adoption in a social group. The twin responsibilities of higher education in agriculture and research development to ensure faster development of agriculture in our state of Tamil Nadu have been entrusted with the Tamil Nadu Agricultural University.

Infrastructure :

The main campus of the University is situated at Coimbatore with colleges for agriculture, basic sciences horticulture and agricultural engineering. Institutions for providing higher education in veterinary sciences are located at Madras. Two other colleges for agricultural education and fishery science are functioning at Madurai and Tuticorin respectively. To provide direct contact with the farming community

four farmers' institutes have been established at Coimbatore, Madurai, Trichy and Pondicherry. In all these centres of learning research activities in their concerned field of specialisation are undertaken by qualified scientific personnel. Besides, 22 research units have also been established in various parts of the state to carry out situation-specific, problem-solving, time-bound research programmes. Right at present TNAU provides higher education in the fields of agriculture, animal sciences, agricultural engineering and fisheries. Research activities are undertaken in all these major fields and also in forestry which is in its infancy.



Major Contributions :

438 students are admitted every year for the under-graduate courses leading to a degree in the fields of agriculture, horticulture, agricultural engineering, veterinary sciences and fisheries. Another 417 students are provided with facilities to pursue higher education leading to M.Sc. and Ph. D. in 32 departments in the faculty of agriculture, horticulture, basic sciences, agricultural engineering and veterinary science. Thus the TNAU amply takes care of the needs of the State for trained manpower in this vital sector.

As a result of sustained research activities 60 new varieties in Rice,



through mass media, extension personnel, farmers institutes and publication of literature. TNAU conducts exclusive courses for farmers through the All India Radio and so far 3458 farmers have participated in 14 special courses. Besides bringing out various publications on scientific topics in English and Tamil, we are publishing a monthly journal "Vallarum Ve lanmai" in Tamil for the benefit of our farmers.

Our immediate goals :

Facilities in all the academic institutions will have to be greatly strengthened to provide a practical skill oriented education to the stu-

is under progress. Evaluating some of the agro-industrial by-products as feed ingredient with the object of reducing the feed cost was made and the materials studied were gobargas slurry, Brewers spent grains, spent tea dust, leaf meals of papaya, tapioca and mulberry. Systems for better management and health cover for various animals have been systematically worked out at the Veterinary College, Madras and passed on to the clientele group. A production method of fish culture in sewage water has been perfected and put to large scale use. New techniques in mango pruning, propagation of plants, processing of horticultural products have been found out.

Recent findings are communicated to the rural community



Sorghum, Bajra, Ragi, oilseeds, vegetables, cotton and other major crops of the State have been released by the TNAU. Twelve modern implements and tools to carry out farm operations efficiently have been designed and made available for popularisation among farmers. New methods in seed production, seed processing and seed storage have been evolved. Various agronomic measures to preserve soil fertility and improve production efficiency, better methods of soil conservation and water management, efficient plant protection control measures, new methods of processing and preservation, have been studied carefully and results communicated to the farming community for adoption. A new breed of poultry Meyer strain has been evolved at the Teynampet poultry research station. Study of the performance of wooly breed for Tamil Nadu with 5/8 Merino and 3/8 Nilgiri inheritance



ing research activities through an interdisciplinary team of scientists will facilitate faster development in this badly neglected sector. Water is the chief constraint for agricultural production in our State. Better water management practices in command areas will have to be evolved in collaboration with the personnel of the public works and other connected departments. Production of fibres, oilseeds, pulses, vegetables and fruits has not attained the desirable levels in our State. Research activities which will lead to a break-through in production of these crops will have to be undertaken in a massive scale. Better methods of



dent. The teacher-student ratio will have to be narrowed by reducing the intake in each institution and by opening one or two more new academic institutions so as to improve the quality of teaching and learning.

Enough attention has not been bestowed upon dry farming and water management so far. Besides continuously working on irrigated farm techniques special efforts should be bestowed upon developing new strategies to improve the socio-economic condition of the rural people in the upland areas. Setting up of a research station in one of the drought prone areas and undertak-

livestock management and health care will have to be evolved and popularised. Social forestry, horticultural forestry, inland fisheries development, agro processing techniques will have to be given better attention. Continuous monitoring of socio-economic constraints for production will pave way for mid-stream correction of development activities. There is a tremendous need to evolve low cost protection techniques without sacrificing total production of various agricultural commodities. The Tamil Nadu Agricultural University, conscious of these needs, is concentrating its attention on all these vital areas and will definitely play a dominant fruitful role in the further development of our state.



multi farious activities of agro industries

Dr. K. VENKATARAMAN,

I. A. S.,

CHAIRMAN & MANAGING DIRECTOR,

*The Tamilnadu Agro Industries
Corporation Ltd.*

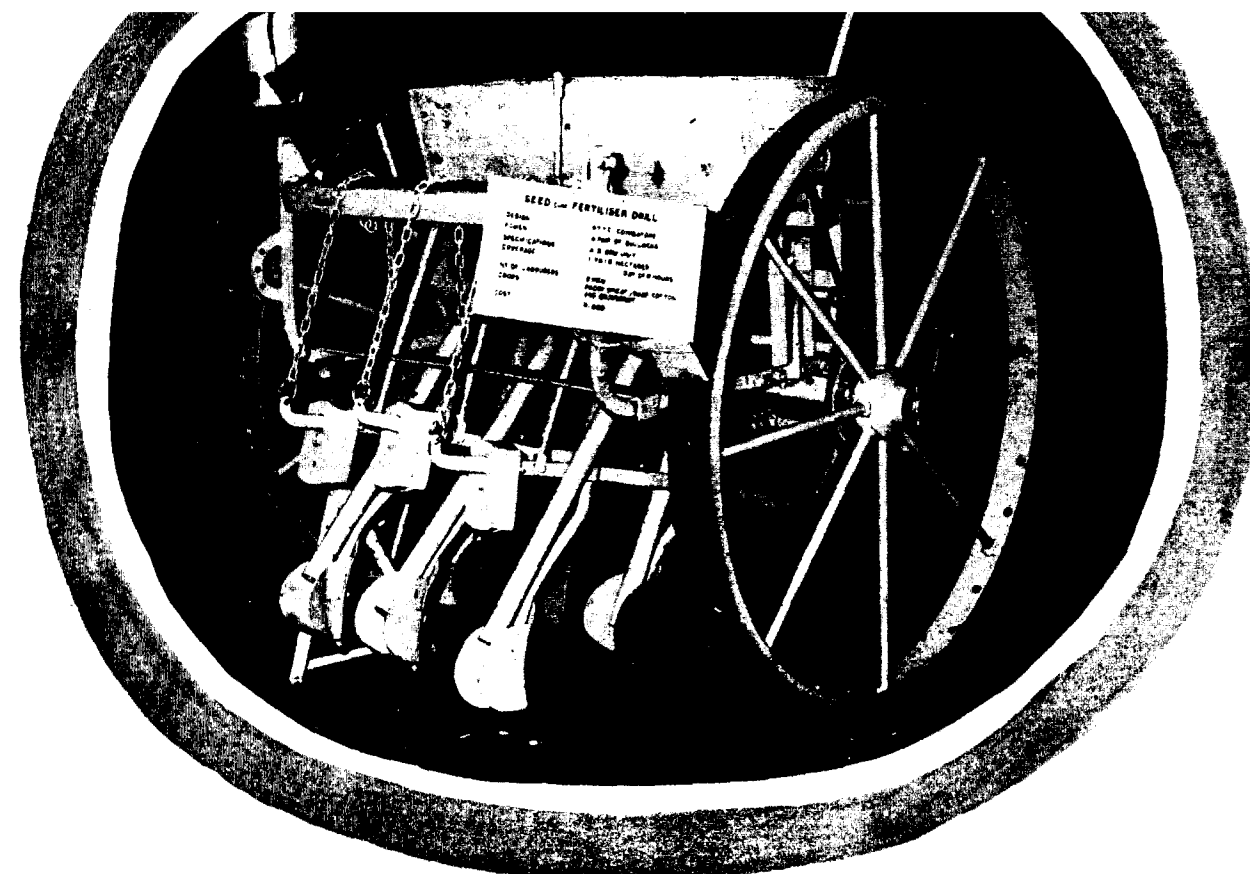
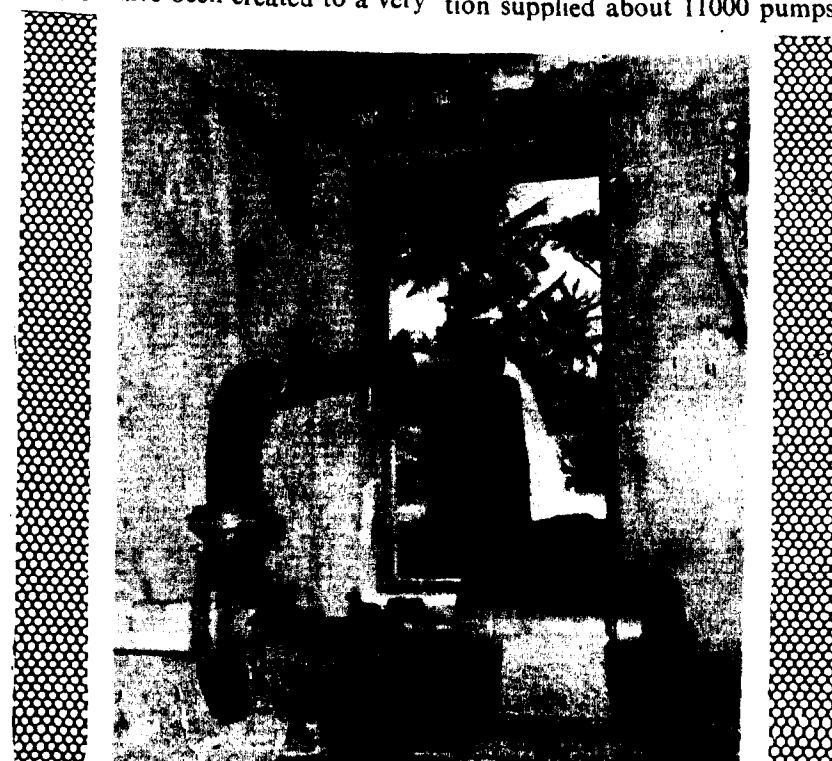
Agro industries provide inputs to agriculture or draw inputs from it. To the former category belong improved agricultural implements, fertilisers, pesticides etc. Agro processing facilities such of those for rice, sugarcane, oil seeds etc. belong to the latter category.

Considerable progress has been made in Tamil Nadu in agricultural development both in terms of the type and varieties of crops raised and the yields therefrom. Agro industrial facilities created so far can claim their share of credit for this achievement. A number of improved agricultural implements as well as mechanised tractors and power tillers have been introduced and are in great demand today. Arrangements for manufacture of fertilisers and a widespread net work for their distribution have been made. Likewise different types of pesticides which are needed for the crops are being distributed through a variety of means.

While the task is on the one hand to streamline such arrangements and ensure that in terms of quantity and quality they are adequate to meet the growing demands including those of small farmers, there is need on the other hand for wide spread agro processing facilities which are essential for a number of reasons. They will be instrumental in creating a steady effective demand for the agricultural products and also in ensuring that reasonably

substantial extent in Tamilnadu particularly in terms of sugar mills and modern rice mills. In as much as agriculture requires a wide variety of inputs and also produces a wide variety of outputs, the scope for agro industries is very wide.

The Tamilnadu Agro Industries Corporation in its existence for over a decade concentrated initially on providing inputs to agriculture particularly through the supply of tractors and pumpsets on sale and hire purchase basis and later through custom hiring of tractors. Between 1968-69 and 1970-71, the Corporation supplied about 11000 pumpsets



and 350 tractors on hire purchase. The scheme was discontinued when the Land Development Banks and Commercial Banks started giving financial assistance for this purpose. In addition the Corporation has sold about 2,715 tractors and spare parts worth Rs. 2.95 crores. The Corporation has also been providing customs hiring and servicing facilities as an essential service to the farmers. With the provision of custom hiring facilities through ENCOFED (Tamilnadu Agro Engineering and Service Co-operative Federation Limited) which has 220 centres in the state, the Corporation's role in custom hiring will not be extended. But it will continue to sell tractors, power tillers and spare parts in an increasing measure.

The activities mentioned above are being implemented through seven regional centres and ten sub-centres. These centres also manufacture and sell certain improved types of agricultural implements. Greater scope exists in this regard through a more co-ordinated effort with extension agencies. One of the improved implements developed by the Corporation is a multipurpose plough for dry farming.

The Corporation has also been implementing a scheme sponsored

by the Government of India to generate employment opportunities for graduates and diploma holders in engineering or agriculture and to encourage them to settle in rural areas on vocations promoting agricultural activities. During the past seven years 284 candidates have been trained by the Corporation under

the scheme, 206 of whom have started agro service centres in various rural areas of the State.

The Corporation is also operating a pesticides project and supplying pesticides worth about Rs. 59.10 lakhs to the farmers.

Another plant of the Corporation manufactures fishnet from nylon and polythene. The Corporation's products have been very well received by the users.

The Corporation's major efforts are now devoted to the establishment of agro processing facilities. The Corporation's entry into the edible oil trade is of particular significance in providing some scope for the public sector to stabilise edible oil price and provide good quality edible oil. The Corporation's facilities for solvent extraction which exist in Namakkal and Pochampalli and are being installed in Punakulam in Pudukkottai District and Maman-dur in Chengalpattu District will enable the solvent extraction of groundnut oil cake, for which adequate facilities have not so far existed in the State. The Corporation has made a good beginning in exporting deoiled cake and supplying good quality solvent extracted refined oil to consumers.



The Corporation's Oil Complex in Pochampalli is even more significant. The Corporation has been able to pioneer the use of Sunflower oil for edible purposes in India in a big way and has established a market for it with the brand name "SUNOLA" which has become a household word in the State. The Corporation's effort will not only lead to a significant augmentation of the pool of edible oil within the country but also a more wide-spread cultivation of sunflower which is a short term crop and can grow in different types of soil and water conditions. As a result the prospect for agriculture particularly for small

course be used for human consumption as well. A small experimental unit run in Udumalpet has enabled a steady income for farmers cultivating about 100 acres of lucerne and at the same time provided good quality ingredient for animal feed to manufacturers of cattle and poultry feed. This unit is expected to be replicated in several other locations in the State in the coming years.

A maize milling unit also located at Udumalpet is intended to provide a stable demand for the maize grown in that area. The lucerne plant and the maize plant together constitute the nucleus of an agro industrial

tions in a more effective way. Projects under consideration include cotton ginning units, tin making units, a fruit processing unit and a cattle feed unit. The Corporation has also initiated trading activities for distribution of fertilisers, pesticides and steel to farmers, which are expected to assume larger dimensions in the coming years.

Considering the wide range of agro industrial opportunities the Corporation will also try to promote the establishment of agro industries in the State in addition to operating units of its own. A small information and consultancy wing has



farmers in dry farming tracts have considerably improved. The Corporation has offered a minimum price of Rs. 2.25 per kg. for sunflower seed with a view to increase the area under sunflower cultivation in the state. A beginning has been made to provide through commercial banks loan assistance to farmers for cultivating sunflower.

complex in Udumalpet which is situated right along side of the regulated market. In juxtaposing the regulated market facilities and the agro processing facilities the Corporation is experimenting with a new type of agro industrial complex which may be worth replicating in other market centres in due course.

Another significant venture of the Corporation is in providing a typically rural, labour intensive agro processing facility for lucerne, which is a good leaf protein which is used in cattle feed and could in due

The Corporation is drawing up a fresh corporate plan. In the meantime its future interest would be in the expansion and consolidation of its existing activities and also integrating its existing activities to utilise the outputs from its various opera-

been created for this purpose. Besides, the Corporation intends to adopt a district in which it will, through a team of specialists, identify specific agro industrial projects, prepare project profiles in co-operation with the banking institutions and interest potential entrepreneurs and financial agencies in implementing such projects. This work will be carried out in co-operation with concerned agencies, particularly the district industries centre. Based on the results the scheme could be repeated in other districts.



MASS COMMUNICATION

N. KRISHNAMURTHY-I.A.S., Director, Information and Public Relations

IN MODERN times publicity through mass media plays a great role in informing the people and analysing their support for the development plans and welfare schemes of the Government. It is a nation-building activity designed to strengthen the foundations of democracy. It has to motivate the beneficiaries. Therefore the modern methods of publicity through mass media is of great advantage to the Government and the people. In a democratic set-up a well informed public is an asset and necessary to carry forward the developmental works.

The most effective media to create a rapport between the people, especially the rural mass and the Government have been found to be the radio and television in a developing nation like India. The impact made by the radio and T.V. among the people in rural areas has been so great that full advantage has been taken not only to disseminate information but also to educate them about the developmental activities of the Government.

Radio and television have many functions to discharge. They can provide the motivation for economic activities and social change, create the climate for development works and influence attitudes. They can also help in imparting various types of education and training to the people in the rural areas, particularly to the farmers. They have the advantage of reaching millions even in remote corners overcoming the barriers of illiteracy. They do not depend on the physical facilities of roads and communications for reaching their targets. They are direct, personal and intimate and hence capable of providing an immediate impact.

As the majority of our population live in villages, rural development has been the primary concern of radio and television. Today the performance of the All India Radio is really creditable as they reach 93% of the population. There are 174 lakhs broadcasting receiver license holders in India today. It will thus be seen that radio broadcasts have made vast strides in India and influences the people very much.

Madras has the distinction of pioneering Radio broadcasts in India. The first Radio club in India was formed at Madras on May 16, 1924, using a low power transmitter of vintage design. This was later taken over by the Madras Corporation, which started a regular broadcasting service at Madras in 1930. This transmitter is now preserved in the Madras Museum. However, the history of organised broadcasting in India began on July 23, 1927 when a 1.5 KW: MW transmitter was inaugurated in Bombay under the designation of 'Indian State Broadcasting Service'. This was redesignated as All India Radio on June 8, 1936.

In 1947 when India achieved Independence there were only six Radio stations and the total coverage was only 2.5% by population and 8% by area. On 1-4-1974 the area covered had increased to 67.5% and the population coverage to 82.5%.

Rural broadcasting

THE ALL INDIA RADIO station at Tiruchirapalli which is a premier centre of Rural broadcasting uses modern portable recording equipment for on-the-spot recording for Farm Home Unit. During the 10 villages were visited and



the station did a total number of 909 outside broadcast recording relays. Again, Madras occupies the pride of place in having installed the first frequency modulation broadcasting service in India, which was inaugurated in July 1977. This new technique in broadcasting will provide very high fidelity and noise free reception when within its service, range of about 40 K.Ms.

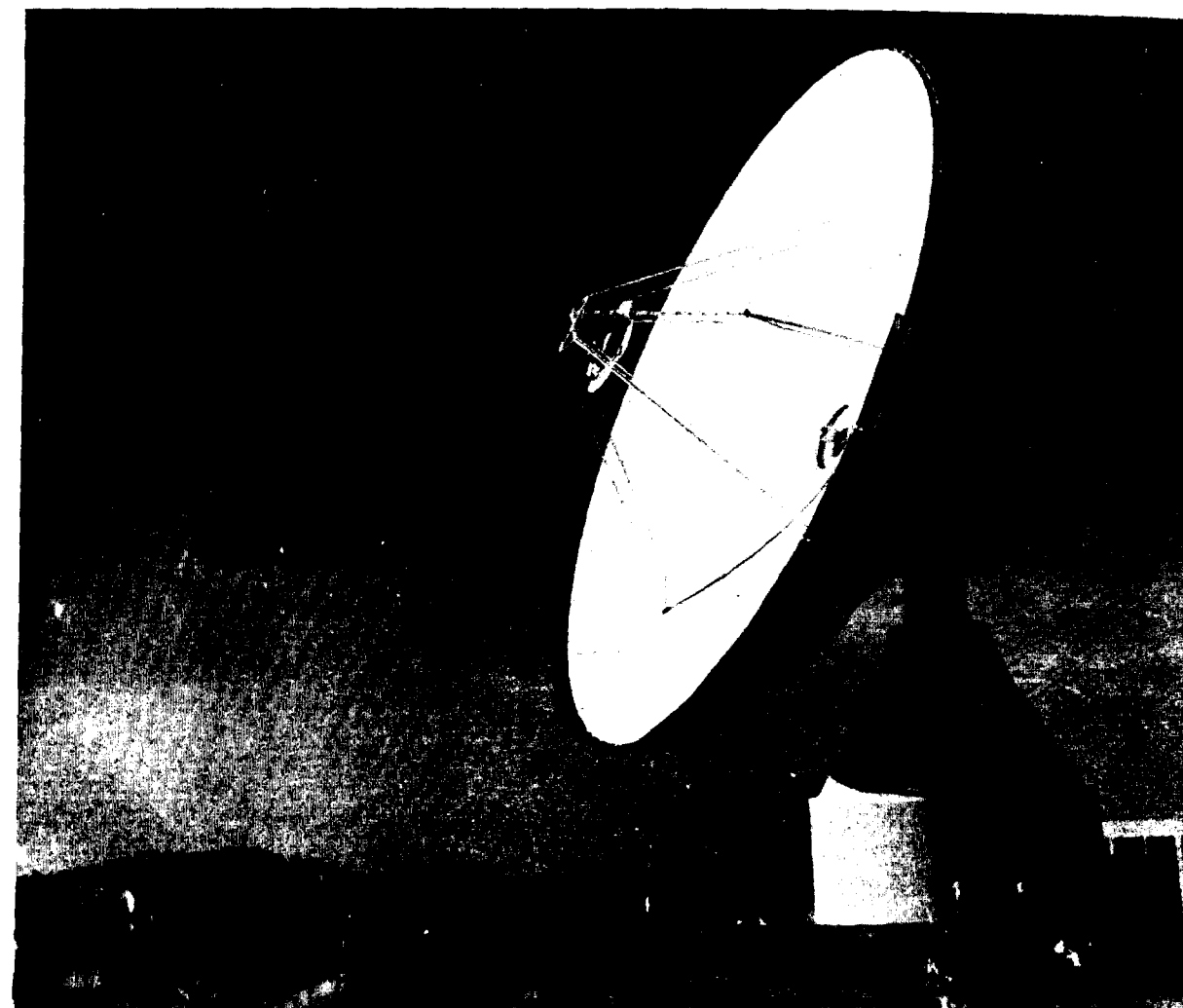
Tamil Nadu realised the unique advantage of radio broadcasts and took steps to instal community

radio sets in villages from the year 1937 when prohibition was first introduced in the State. There are now 45,499 community radio sets in the State. Special programmes for farmers and others are broadcast at set times which are heard through these community radio sets. Radio Rural Forums in villages act as the eyes and ears of these broadcasts, and supply sufficient feed-back on listeners' reactions which help the authorities to plan further. Hundreds and thousands of farmers have been benefited by these broadcasts.

The radio has played a major role in the "green revolution" brought about in the country by giving proper and timely advice to the farmers on improved methods of cultivation. The All India Radio broadcasts from Madras, Tiruchy, Coimbatore and Triunelveli Stations extensively cover Tamil Nadu, with a rural bias. The programmes cover subjects like agriculture, animal husbandry, rural planning, health, adult education, maternity and child welfare, small savings, rural and small industries and current affairs. There is cooperation and coordination of efforts between the media wings of the Government of Tamil Nadu and the All India Radio. Since the rural masses are mostly illiterate and poor, it is necessary to evolve special techniques for putting across the news regarding plan schemes and social and economic developments. Experiences of one region are broadcast to others. The radio has been extremely useful in reaching the people instantly and to post them with upto-date news and information.

Television

TELEVISION has been a recent innovation in the field of mass communication. Tamil Nadu had its first T.V. station at Madras from 15-8-75 catering to a limited area of about 19 K.M. radius. It was extended



to a radius of 90 K.M. from 4-7-76. The Government of India have supplied 114 T.V. sets to the Government of Tamil Nadu free of cost under Community viewing scheme for supply to the villages to popularise the programmes and other activities of Government of India and Government of Tamil Nadu among the rural people. These sets have been installed in villages and it is found that the present transmission covers the entire district of Chingleput, and the Panchayat Union area of Arkonam. Nemili, Cheyyar, Vembakkam Kaveripakkam and Anakkavur of North Arcot District and Marakkanam and Olakkur Panchayat Union areas of South Arcot. These sets are being maintained by the Panchayat Radio Maintenance Organisation.

Recently the Government of Tamil Nadu has permitted the Panchayats and the Panchayat Unions to instal and maintain T.V. sets to be financed from their funds. It has been decided to instal 1500 T.V. sets in the three districts of Chingleput, North Arcot and South Arcot on a phased programme. In addition to these, the schools will also purchase T.V. sets. In all 1700 sets are expected to be installed in the near future. A separate "T.V. Maintenance Cell" for Tamil Nadu has been created for the purpose of installing and maintaining T.V. sets in the Panchayats, Municipalities and the Corporation of Madras. The T.V. cell will be under the control of the Director of Rural Development and located at the Instronic Campus at Adyar Madras

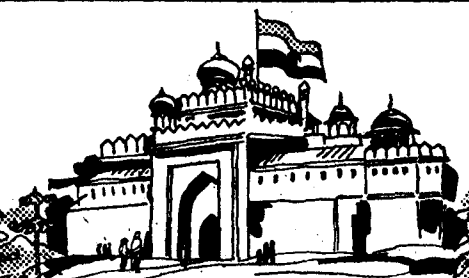
T.V. Clubs have been formed on the lines of the Radio Rural Forums so that a feed-back is obtained. These clubs are also supplied with free stationery and stamps to induce them to write their reactions to the T.V. programmes.

The T.V. has brought a new excitement to the village folk. In small groups people from within and neighbourhood quickly assemble at the local panchayat office. For over two hours they intently listen and see the programmes. While the T.V. is still beyond the reach of many well-to-do people, the poor and the lower middle-class people in villages are fortunate to benefit from this modern facility.

To plan the programmes in a manner more beneficial to the villagers, the Government of Tamil Nadu has set up a committee consisting of representatives from almost all departments. This consultative committee which periodically meets, discusses the suggestion from officials and the T.V. clubs and formulates the future programmes.

Thus mass Communication media of radio and television have been put to the advantage of both the Government and the people. With the increase in literacy it is hoped that the utility of these media will increase substantially.





BHARAT BHAGYA VIDHATA

On 15th August 1947, we the people of India became the "dispensers of our own destiny" ("Bharat Bhagya Vidhata"). The 32nd Anniversary of our Independence Beckons us Today

- ★ to gather strength and inspiration from our achievements
- ★ to work with renewed efforts for a better tomorrow.

In 32 years of Independence.....

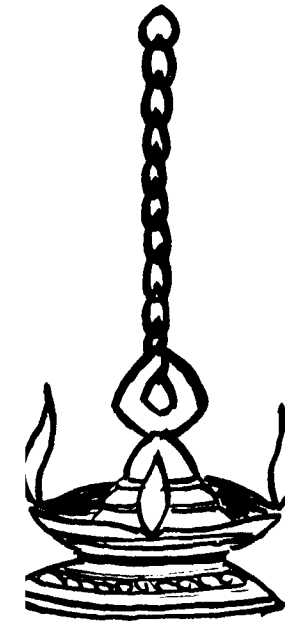
- ★ we have successfully repulsed external threats to the integrity of our country
- ★ average life expectancy has risen from 32 to 52 years
- ★ we have more than doubled our foodgrains production
- ★ our industrial production has more than quadrupled
- ★ foreign exchange reserves exceed Rs. 5,000 crores

"It is a cause of legitimate national pride that.....a stagnant and dependent economy has been modernised and made more self-reliant," to quote the current Five Year Plan draft.

**LET US TAKE PRIDE IN OUR ACHIEVEMENTS
FOR PROSPERITY AND INDEPENDENCE,
LET US REMAIN UNITED**

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MADURAI



" They saw my lord at Madurai
They saw the form of knowledge pure
They saw in earth the celestial moon
They saw the music scales seven
The music praising God Siva
These they saw in Sambanda
Praise be the eyes that saw ! "

—Saint Sekkilar
(Peria Puranam)



A. V. JAYACHANDRUN,
M.A., B.L., Dip.P. & P.A.

(Hony. Director, Temple Art Museums
Madurai. Special Officer. Museums,
Tirumala Tirupati Devasthanams,
Tirumala

Madurai is one of the very few cities of the world that claims a continuous history of over two millennium. When the now mammoth cities of Bombay and Madras were just fishing hamlets and the present most populated city of India-Calcutta, was a tiny village of mud-flats, the name of Madurai was known to the civilised world as the capital of the Nayakar dynasty. Still earlier, about the beginnings



of the Christian Era, Madurai was the Capital of the Pandiyas with whom the Mediterranean world carried on trade and whom even the great Mauryan Asoka did not attempt to conquer. The mighty Cholas of the Mediaeval period tried to vanquish the Pandyas but failed. Everytime they were defeated, the Pandyas arose phoenix like from the ashes of their past glory and till the fourteenth century ruled Madurai continuously.

The Muslim generals, like Malik Kafur, Alauddin had planned to plunder the wealth of this great town during the 14th century. They carried away ton loads of gold, and jewellery, but could not rob its cultural ethos which till date remained distinct from the rest of the Tamil Nadu nay Bharat.

THE CHIEF ATTRACTION

The chief attraction, no doubt is the temple. With stately towers springing up over the tall gate-way-structures and the bewitching magnificence of the sculptured colonnades, the temple offers the tourists a new world to breathe, to live and to get enthralled in ecstatic delight. All the gods of the Hindu pantheon on the towers are arrayed in front of their eyes to gaze and slip into a mystic trance.

Despite several vicissitudes that affected it, the city has not lost its unique position. *Paripadal*, *Madurai Kanchi*, *Kalittogai*- all of the first to third century A.D. have described the temple and the city. These accounts are confirmed by a host of foreign writers. Megasthenes (302 A.D.) speaks of the Pandyan country. Strabo (20 AD) records about an embassy sent by the Pandyan King to the (emperor) Augustus. Pliny (77 AD) mentions the Pandae' the king Pandya and his 'mediterranean emporium of Madoura'. Ptolemy (140 AD) tells us of 'modoure', the kingdom of the 'Pandion'. Searching for later sources, we have the accounts of Marco Polo (1393 AD) and Ibn Batuta (1333-1345AD).

The uniqueness of the city, is that it is planned around the temple in almost concentric squares. A description of the fortification of Madurai, found in *Madurai Kanchi* informs us of the city being surrounded by thick forests not easily crossed by enemies, a deep moat and lofty

walls pierced by huge gates with towers over them.

REGAL PATRONAGE

Very few cities in the world have for over thousands of years continued the throbs of life inspite of wars, pestilence, invasions and other onslaughts, as Madurai. The city has from the beginnings of the Christin era obtained the patronage of the illustrious rulers.



The earliest to take a deep abiding interest in the temple and the city was Kadungon (6th century A.D.). He constructed a compound wall of length 22 ft. and breadth 156 ft. around the simple temple of Sundaresvara, already in existence and referred to in the 7th and 8th century A.D. Tevaram Hynms. The temple grew as also the city. His successor to evince a greater interest in enlarging the city and throwing fortification around it was Jatavaraman Kulasekhara Pandyan (1163-1175). The East gate belonging to this fort is still seen, though now difficult to be identified due to its location amidst the labyrinth of shops. Kulasekharan built temples at all cardinal points around the fortification, and now except the Vishnu temple on the west all are in existence.

The temple chronicles, *Sthalavaralaru Tirupanimalai* records the munificence of kings in the temple expansion and renovation programmes. Most of the edifices of these illustrious monarchs were razed to the ground during the Muslim invasion of Madurai in the fourteenth and the present temple is due to the efforts of the Nayakars-the vassals of Vijayanagar Rulers.

An imaginative layout was conceived around the sanctums of the Lord and Minakshi (which alone escaped during the Muslim attack) by Vishvanatha Nayakar who restored peace and order in the Pandya empire during the sixteenth century. It fell to the lot of Tirumalai Nayakar, his beghn successor to complete the plan. Except a few additions during the subsequent centuries, the temple stands as it was left by Tirumalai Nayakar.

The British Collectors who ruled after the invasion of the city by Colonel Heron took considerable interest in the temple affairs. Rouse Peter, a Collector endearingly called Peter Pandyan emotionally associated himself with the temple. The wrath of the then rulers and the the Christian missionaries was on him. He brushed it aside and donated a gold strirrup still in the temple, as thanks giving to Minakshi for saving him from being killed by the cracked ceiling of his bungalow.

THE TEMPLE

The Minakshi Temple is a world of its own. Even in the small

hours of the morning viz. 4.30 A.M. the temple gates are open and ritualistic worship is commenced. Eight times a day are the lamps lit, the deities bathed, decorated, and offerings made, while *mantras* are repeated and *Nadasvaram* music is played.

During the night, the sacred foot of the Lord is carried in procession with a paraphernalia which even the head of a country will envy, to the sanctum of the Goddess where it is placed on a swing in a special bed chamber and where already the image of the Goddess is seated. Before the doors are closed, musical instruments are played, mantras are chanted and prayers are offered. Though modest this concluding festival of the day symbolised the union of primordial sakti *Kundalini* with the *Sahasrara* - the state of expanded consciousness in which the devoted experienced the absolute, in wakeful forgetfulness.

The yearly calendar of the temple is full of festival days, out of 365 days in a year 280 days are festival days at Madurai and the deities are taken out on perambulation.

The conventional entrance to the temple is through the Ashta Sakti Mandapam where pillar sculptures of Mahalakshmi, Vaishnavi, Raudri, Brahma, Koumari, Yagnarupini, Shyamala, Maheswari, Manonmani are found. Each goddess showers her special blessings even at the entrance to a devotee. The visitor then enters the five aisled Minakshi Nayakkar Mandapam fringed by the seven tiered Gopuram called Citra Gopuram and another dark mandapam where the sculptures of Siva with begging bowl and the wives of Rishis entraptured with the naked beauty of the lord are seen.

From darkness unto light, the panoramic view of the Porramaraikulam, the Golden Lotus Tank unfolds itself. The golden Vimana sikhara of Minakshi and Sundaresvarar shrines and all the twelve gopurams of the temple could be viewed walking around this tank. The sayings of Valluvar, the Marcus Aurelius of the Tamil country whose work *Tirukkural* has been translated in all the languages of the world, adorn the walls of the South Corridor of the Golden Lotus Tank. It is believed that the work was first published at Madurai. Walk-



ing along the corridor we reach the precincts of the Minakshi Temple. Hindus only are admitted inside the Sanctum where the Goddess is viewed in standing position decked with pleasing apparel, jewellery and scented flowers. The face of Minakshi is touched with turmeric and sandal paste over the brows and we witness an enthralling sight. In her presence we experience a split-second-forgetfulness, a state of expanded awareness in which time loses into timelessness.

Coming out of the Goddess's shrine the temple complex of Sundaresvarar is entered through the South five-tiered Gopura called



Nadu Kattu Gopura. A rare treat-the mammoth figure of Mukkurini Vinayagar carved out of a single boulder invites us. Every year during August-September, the deity receives a huge food-ball of rice and dhal.

The sanctum of the Lord with a circumambulatory passage into which only Hindus are admitted is of the size of a foot-ball field. Going around the peri-stylar passage you will feel history in your veins.

The sculptured pillars which portray the various alter egos of the Lord, are specimens of the finest work of the sculptor's chisel. In the figure of Agni and Aghora Virabhadras, Urdva Tandavar and Kali, motion is petrified in monoliths, an art learnt by the Pandyan sculptors and usefully portrayed in this great temple.

From this mandapam called Kambattadi Mandapam one can walk to the Kalyana Mandapa, where a portion is roofed with copper tiles. From there on to the Thousand Pillared Mandapam-the venue of the Temple Art Museum

THE ART OF MADURAI TEMPLE

In the architectural and sculptural history of Tamil Nadu Madurai Temple had a dignified place. It marked the last phase of an illustrious experiment made to build a multi-prakara-house of God on Agamic lines. The temple is a sculptural paradise though most

of the sculptures belonged to the periods later than the sixteenth century, yet for sheer grace and majesty of form, they had a few parallels. Artists well versed in Western and Eastern sculptural techniques created the thousand pillared hall transforming into Rococo.

The Temple Art Museum, housed in the Thousand pillared



Hall, through imaginative exhibits presents, a glimpse of the evolutions of temple architecture of the South iconography and iconometry. Rare collections of bronzes, that speak of the glory of the artisans of the Southern districts, can be viewed in leisure at this Museum. Some of the bronzes date back to the days of Sundara Pandya of Twelfth century. If you have a camera you have a real treat here awaiting you in the sculptured hall of monolithic pillars. The sheer conception of both the form and content of this great hall is an eloquent testimony to the genius and skill of medieval craftsmen. The musical pillars in the Thousand Pillared Hall will be pointed out, if you ask any of the Museum guides. Before leaving the Museum do listen to its music.

It is at Pudu Mandapam that sculptures had escaped into a new spirit-converting the edifice into a decorative jewel.

The unfinished tower in front of Pudu Mandapam if completed would have been an acme of perfection the Nayakar craftsman desired a reach. It is here that one witness specimens of sculptural Art presented after a re-study, and newer inspiration injected in the veins of the craftsmen due to upsurge of the ethos of the age.

The Madurai Temple, dedicated to Minakshi and Sundareswarar, is just not a temple, it is a cultural, an art paradise, an embodiment of all the values that Saiva Agamas wanted to perpetuate to ensure a lasting peace amidst humanity.



PRISONS REFORMS COMMISSION REPORT

The report of the Tamil Nadu Prisons Reforms Commission was presented to the Chief Minister on 28-4-'79 by Thiru R. L. Narasimhan former Chief Justice of Patna High Court.

The three-part report consists of 178 recommendations. The report was prepared under the guide lines of Thiru Narayanasamy, Honourable Minister for Law.

The Chairman of the Commission while submitting the report to the Chief Minister said that the generous attitude and progressive views of the Chief Minister have been incorporated in the recommendations. He said that he is looking forward to the day when Tamil Nadu will stand in the forefront in India in the matter of treatment of prisoners with proper accommodation facilities, by implementing the recommendations.

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ELEGANT

Water
Water
every where
And many a drop to drink



K. MADHAVA SHARMA I.A.S. *Managing Director Tamilnadu Water and Drainage Board.*

Over 80% of the total population of our country live in villages; but the villages have few amenities essential to life such as drinking water compared to towns. The Tamil Nadu Government have given top priority to solve the drinking

water supply problem in the rural areas and to bridge the gap between towns and villages in this respect.

STATUS OF RURAL WATER SUPPLY IN VILLAGES BEFORE IMPLEMENTATION OF RURAL WATER SUPPLY PROGRAMME:

In many villages, there is no potable and perennial drinking water

source at all and the people have to fetch their drinking water from distant sources. Particularly the women folk and children spend most of their time in this burden some task wasting their productive contribution to the Nation. In several villages, the water available is saline or otherwise unfit for



drinking. Therefore, they were frequently subjected to Cholera, Typhoid, Guinea-worm disease and other-water borne diseases. In addition to the above, even villages with good water supply during rainy season suffer when their water sources dry up during summer months.

SURVEY ON DRINKING WATER SOURCES IN RURAL AREAS

Owing to the consecutive failures of monsoons, the State suffered a severe drought during 1974, 75 and 76 and a Crash Programme of providing drinking water supply to many drought affected villages was undertaken and completed. Eventhough the above relief measures were carried out during 1976-77 the problem of drinking water in the villages was far from solved. Hence the Government had conducted a scientific survey to assess the problem in its entirety correctly. The Data was collected through printed questionnaires which were answered by about 5,000 Gram-sevaks (V.L.O.) attached to the 374 Development Blocks of Tamil Nadu after visiting personally each of the habitations. The Data so collected from the entire State was analysed in the Government Data Centre, Guindy, Madras using a Computer. As a result of this survey, the habitations have been classified under the following six categories.



PROGRAMME PLANNED

The State Government have started the implementation of the programme for the provision of water supply to 5420 type 1 and type 2 habitations in Tamil Nadu from 1-9-77 and the schemes are under execution. The estimated cost for this programme is Rs. 25 crores. So far 2,700 habitations under Types 1 and 2 have been provided with protected, potable

and perennial water supply benefitting a population of about 10 lakhs at an expenditure of Rs. 11.4 crores. Provision of water supply to the balance 2,720 habitations benefitting a population of 11.38 lakhs is under advanced stage of execution and will be completed by 31st March, 1980.

Immediately after the completion of water supply schemes to Types 1 and 2 habitations, works relating to provision of water supply to type 3 habitations (habitation where the source is not perennial) will have to be taken up in every district. The approximate cost of providing water supply to all the 6,487 habitations of type 3 is estimated to be Rs. 46.44 crores. It is expected that the provision of water supply to most of the Type 1 and 2 habitations will be completed in December, 1979 and works relating to provision of water supply to type 3 habitations will be taken up and the programme is expected to be completed by March, 1982. After covering type-3 habitations, works relating to types 4, 5 and 6 will be taken up in the same order of priority as the type number to achieve the objective of providing protected, potable and perennial water supply to the rural habitations of the State.

Under this Programme, all harijan colonies will be provided with independent water supply and consequently they will no longer depend on water sources in the main villages.

Highlights of Rural Water Supply Programme

(a) *Iron Removal Plants* : While tackling the problem of providing water supply to type 2 (non-potable source) habitations, it was found that there are a number of habitations having water with high iron content thus necessitating installation of suitable treatment plants. The research wing of Tamil Nadu Water Supply & Drainage Board had evolved suitable type designs for iron removal plants both for hand pump and power pump schemes and some of the plants are already under operation.

(b) *Fluoride Removal Plants* : There are a number of rural habitations in Madurai and Coimbatore Districts where the water available has excessive Fluorides. The people living in these areas, suffer from decay of teeth, deformation of bones etc., which incapacitate them. In view of very huge costs involved, schemes for providing pure drinking water to these areas were not taken up in the past. The present Government have ordered that all such habitations should be provided with potable and perennial drinking water irrespective of the costs involved.

Suitable treatment plans for removing the excess fluorides are being evolved for use in these areas, and very soon they are expected to come into operation.

(c) *Comprehensive Water Supply Schemes* : Another unique feature of the present Rural Water Supply Programme is the implementation of a number of Comprehensive Schemes (each scheme covering a number of habitations) for habitations where the ground water is not potable because of salinity in the coastal areas of the districts viz., Ramanathapuram, Pudukottai, Tirunelveli etc., These areas have hitherto been neglected due to high costs and they are now being covered by these Comprehensive Schemes. So far 47 Comprehensive Water Supply Schemes (each costing more than Rs. 2 lakhs) benefitting a total population of 3.67 lakhs have been sanctioned under types 1 and 2 at an estimated cost of Rs. 10 crores and they are under execution.

Maintenance Programme

The huge investment made under this Programme will not benefit the rural masses unless, all the power pumps and hand pumps

in the rural areas are properly maintained. Realising this, the Tamil Nadu Government have given importance to the maintenance programme for Rural Water Supply Schemes.

(a) *Hand Pump Maintenance* : At present there are about 18,000 deep borewells fitted with hand pumps now in operation in the rural areas of the State. These special type of pumps, though sturdy in design to withstand use in rural areas, require periodical maintenance. It is estimated that one deep borewell fitted with a hand pump can serve about 250 to 300 persons. All these pumps are maintained by the Tamil Nadu Water Supply & Drainage Board from August, 1976.

A "three-tier-system" of hand pump maintenance is being adopted. This system contemplates maintenance of hand pumps at village level, Block Level and District Level by caretakers, Block Level fitters and Mobile Teams respectively.

The caretakers selected from among the residents near the hand pump intimate any breakdown to the Block Level fitter/Mobile Team through stamped post cards given to them. On receipt of information, the repairs are carried out by the Mobile Team/Block Level fitter.

Under Hand Pump Maintenance Programme, so far 245 fitters have been appointed and 17 Mobile Teams formed. This system is functioning satisfactorily in all the districts of the State. A recent National Seminar conducted by Government of India and UNICEF have commended the Tamil Nadu System for adoption throughout India.

(b) *Power Pump Maintenance* :— It is estimated that there are about

10,570 power pumps now existing in the Rural areas of Tamil Nadu. The Government realising the need for proper maintenance have decided to entrust the maintenance of all the 3,000 power pumps available in South Arcot, North Arcot and Chingleput Districts to Tamil Nadu Water Supply & Drainage Board as an experimental measure for one year from 1-4-78. It has been proved that after the taking over of maintenance by Tamil Nadu Water Supply & Drainage Board, the percentage of sick pumps at any point of time has reduced to a very great extent. The proposal for entrusting the maintenance of power pumps in all the other districts is under the active consideration of the Government.

Financial Allocation

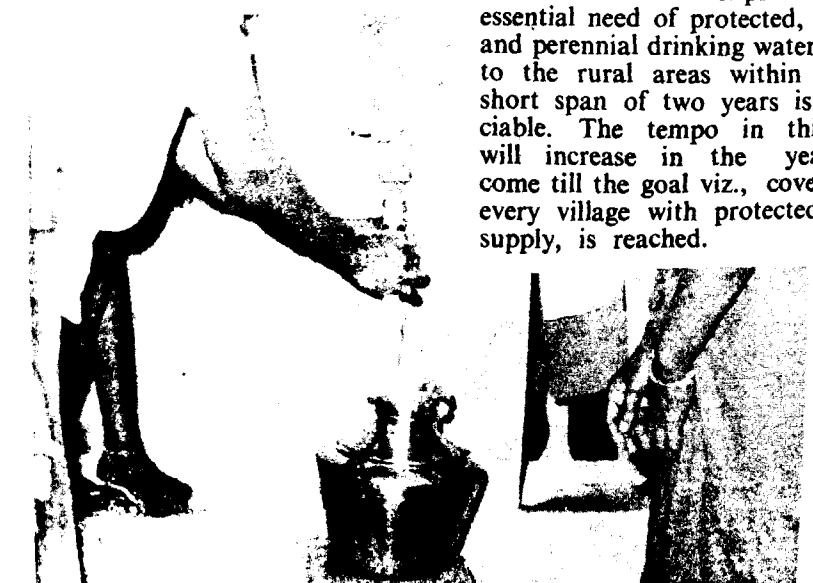
During 1972-73 and 1973-74, about Rs. 1.5 crores was being spent annually on Rural Water Supply Schemes. During 1977-78 and 78-79, a sum of Rs. 6.75 crores and Rs. 8.60 crores respectively were spent by the Government in this sector. The allocation for 1979-80 is Rs. 16 crores including the assistance of Rs. 10 crores from Government of India.

From the above, it can be seen that the financial allocation made by the State Government during 1979-80 including Central assistance is more than 10 times, the allocation made during 1972-73 and 1973-74 for Rural Water Supply Schemes.

From this, it is very clear that all out efforts are being taken by the State Government, with assistance from Government of India to tackle the problem of Rural Water Supply.

Conclusion

The efforts taken by the Tamil Nadu Government in providing the essential need of protected, potable and perennial drinking water supply to the rural areas within a very short span of two years is appreciable. The tempo in this field will increase in the years to come till the goal viz., coverage of every village with protected water supply, is reached.



IRRIGATION IN TAMIL NADU

S. MANAVALAN,
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Chief Engineer Irrigation

Irrigation is an art practised in Tamil Nadu from time immemorial. Utilisation of the surface waters for irrigation has been gradually stepped up and at present, about 95% of the available surface waters are being utilised. This high degree of utilisation has been made feasible by forming reservoirs, anicuts, channels and tanks, at almost all potential sites.

Before the implementation of Five Year Plans, there were only 23 irrigation systems in Tamil Nadu, providing irrigation facilities to 11 lakhs hectares (27 lakhs acres). Irrigation was extended by anicuts in Ponnai, Cauvery, Tambaraparani etc., rivers. Besides these, two reservoirs were also formed. One of these is the Periyar Lake formed across the West flowing Periyar river. The west flowing waters are diverted to the east through a tunnel to benefit Madurai District. The other one is the Mettur Reservoir across the river Cauvery. This is the largest storage reservoir in Tamil Nadu.

In the five year plans implemented from 1951-52, six major and 39 medium irrigation projects, costing Rs. 217 crores, have been taken up for benefitting 3.34 lakh hectares (8.26 lakhs acres) of new

area. Out of these, 4 major and 32 medium schemes have been completed benefitting 2 lakh hectares (4.95 lakh acres) of new area. Apart from this, an extent of 1.01 lakh hectares (2.5 lakhs acres) of new area will be benefitted by the Parambikulam Aliyar Project which is being implemented in stages by the schemes completed in 1977-78 about 2700 hectares (6600 acres) of new area will be benefitted.

In the current year (1979-80) it is programmed to give irrigation facilities to 5000 hectares (12400 acres) of new area.

Salient features of important irrigation projects which are under execution, are given below :—

Parambikulam Aliyar Project :

The multi valley, multi purpose, Parambikulam Aliyar Project was

commenced in the second five year plan period. This is an example of good will and co-operation among neighbouring states. So far, six reservoirs, one weir, seven channels and inter-connecting tunnels have been completed, providing irrigation facilities. Lower Nirar Dam and tunnel works are under execution. They are programmed to be completed in the current year. The targeted extent of ayacut under the project is 1.01 lakh hectares (2.50 lakh acres). Still there are large extent of lands in the command area of the Project without irrigation facilities. Government have approved the scheme of extension of irrigation benefits of this scheme to another 0.45 lakh hectares (1.10 lakh acres) with a view to carry the benefits of the scheme to dry areas atleast in alternate years.

Modernisation of Periyar-Vaigai Irrigation System :—

With a view to modernise the Periyar-Vaigai irrigation, and to minimise the seepage loss, a modern scheme with World Bank Aid is being implemented. The estimated cost of the scheme is Rs. 41.04 crores and 15,956 hectares (39420 acres) of new area will be benefitted. It is programmed to complete the work in the current five year plan period. A separate Chief Engineer has been appointed by the Government in 1977 for this Project.

Excavation of a right side canal from Sathanur Pick-up Anicut.

A canal is under excavation from the pick up anicut below Sathanur Reservoir on the right side where irrigation facility was not given previously.

Under this scheme, originally it was programmed to give the benefit of wet cultivation to an extent of 3600 hectares (9000 acres) But, subsequently it has been decided to extend the irrigation benefit to a larger extent of land. This is proposed to be achieved by designing the system for irrigated dry crops and an extent of 6554 hectares (16443 acres) will be now benefitted. The latest estimated cost of the scheme is about Rs. 465 lakhs. The Scheme is programmed to be completed in the current five year Plan.

Formation of a reservoir across Ponnai near Kelavarapalli :

A dam costing Rs. 607 lakhs is under construction across the



river Ponnai near Kelavarapalli village in the Dharmapuri District. The Government approved the scheme in 1977. Irrigation facilities will be extended to 3237 hectares (8000 acres) of new dry crop lands. A reservoir of 386 M.cft capacity with two canals will be formed. The scheme is programmed to be completed in the current five year plan period.

Formation of a Reservoir Across Pambar near Marampatti

Under the Drought Prone Area Programme, a reservoir, costing Rs. 248 lakhs is under construction across river Pambar, near Marampatti village in Uthangarai Taluk of Dharmapuri District. An extent of 1620 hectares (4000 acres) of new lands will receive irrigation facilities. The scheme is programmed to be

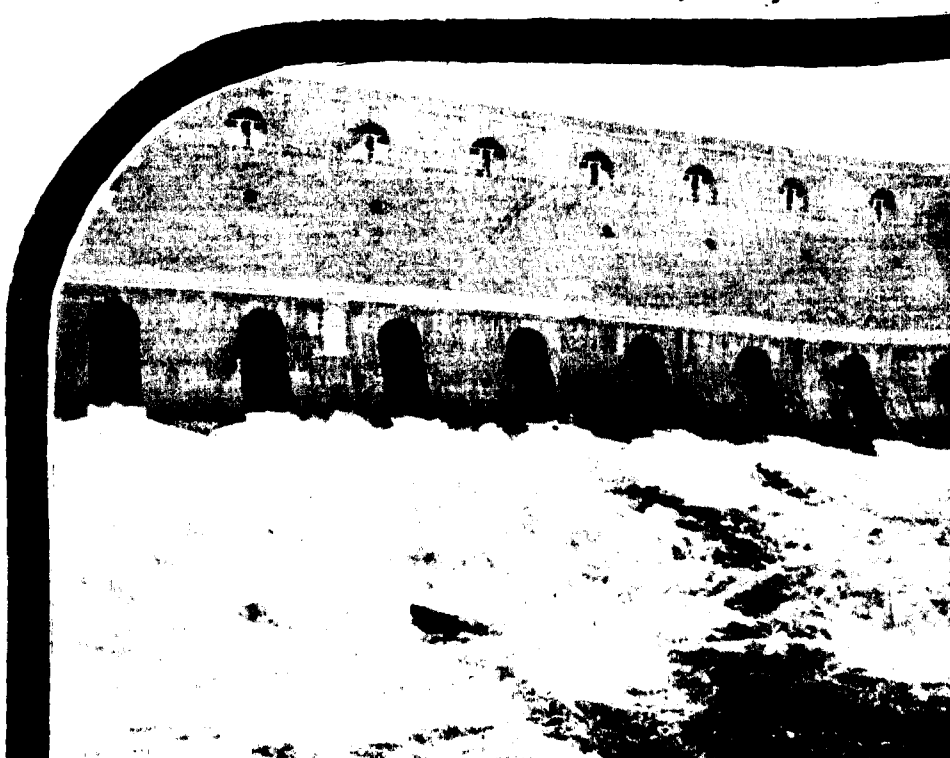
completed in the current five year plan period.

Gundar Reservoir Scheme

The scheme contemplates formation of a reservoir of 25 M.cft. capacity across Gundar river near Kannipulmedu in Shencottah Taluk of Tirunelveli District. This scheme will stabilise irrigation in an extent of 495 hectares (1222 acres), besides benefiting 40 hectares (98 acres) of new area. Government have sanctioned the revised estimate for Rs. 82 lakhs for the scheme. The work is being taken up and will be completed in the current five year plan period.

Improvements to Veeranam Tank System (Pilot Study)

It has been programmed to improve the Veeranam Tank system.





In the first stage, a pilot scheme has been taken up to improve the Lalpet and Valligudy channels of this system at a cost of Rs. 11 lakhs and these works are in progress.

In 1978-79, the Government have sanctioned the following four new schemes.

Formation of a reservoir of 131 M.cft. capacity across Pulampatti river near Thumbalahalli village in the Palacode Taluk of the Dharmapuri District :—By this scheme an extent of 884 hectares (2184 acres) of new area will get irrigation facilities, besides bridging gap and stabilising an extent of 171 hectares (422 acs.) of existing ayacut. The estimated cost of the scheme is Rs. 123.97 lakhs.

Formation of a reservoir of 418 M.cft capacity across Vaniar river near Mullikadu village in Harur Taluk of the Dharmapuri District :—The scheme will provide irrigation facilities to an extent of 3460 hectares (8550 aacs.) of new area for raising dry crops, besides stabilising an area of 749 hectares (1852 acres) of existing ayacut. The estimated cost of the scheme is Rs. 560 lakhs.

Formation of a reservoir of 398 M.cft capacity across Vaippar river near Vembakkottai village in Sattur Taluk of the Ramanathapuram District :—It will benefit a new area of 3278 hectares (8100 aacs.) for dry crops. The estimated cost of the scheme is Rs. 296 lakhs.

Formation of a reservoir of 127 M.cft capacity across Virudupatti Odai, near Kullur Sandai Village in Aruppukottai Taluk of the Ramanathapuram District :—By this scheme an extent of 1034 hectares (2556 acres) of new area will

get the benefit of irrigation dry cultivation. The estimated cost of the work is Rs. 127 lakhs.

Further, Special Minor Irrigation Programme works are implemented from the first plan period onwards. Under this scheme, small irrigation works costing less than Rs. 25 lakhs are taken up to provide irrigation facilities. As these schemes are quick yielding, the Government pay special attention to them.

In the last two years i.e. 1977-78 and 1978-79, 216 works benefiting new area of 8533 hectares (21087 acres) were completed. Upto end of 1978-79 works numbering 17911 have been completed benefiting 2.13 lakh hectares (5.26 lakh acres) of new area. For the current year the Government have allotted Rs. 250 lakhs for S.M.I.P. works.

Irrigation tanks lose their original capacity due to silting. Restoration of lost capacity in part or full can be achieved by raising the F.T.L. of tanks and desilting the tank beds to reclaim the foreshore lands. By a judicious combination of the two methods the scheme is being implemented. The scheme which was commenced in the second five year plan period is being continued in the current plan period. From the inception upto 1978-79, the scheme has been executed in 263 tanks, while in the last two years it was done in 13 tanks. The allotment by the Government for these works for the current year is Rs. 25 lakhs.

In Tamil Nadu an extent of about 9.3 lakh hectares (22.98 lakh acres) of lands receive irrigation facilities through 37000 tanks. Out of these, tanks feeding more

than 40 hectares (100 acs.) are only at present under the control of the P.W.D. the other tanks being under the control of the local Panchayat Unions, etc. The Government implemented the Accelerated Minor Irrigation Programme in 1974, considering the need for bringing the tanks to standards and the inability of the Panchayat Unions to maintain the tanks under their control due to paucity of funds. Under this programme, the PWD tanks, tanks under the control of Panchayat Unions and the ex-zamin tanks will be brought to standards by the PWD in a phased programme. A total of 3734 nos. of such works have been completed upto the end of 1978-79. In the last two years i.e. 1977-78 and 1978-79, 1043 such works have been completed for the current year, the Government have allotted Rs. 135 lakhs for these works.

A major scheme costing Rs. 192.68 crores for modernising about 500 tanks each having an ayacut of 200 hectares (500 acs.) has been formulated. This is under consideration of the Government.

Chances of framing new major irrigation schemes in Tamil Nadu are not bright, as the balance utilisable surplus flows are very limited. Investigation to formulate schemes to utilise the residual flows to the maximum extent feasible is however being conducted. Having utilised the surface water flows almost fully, efforts are being taken by the Government to obtain surplus waters of the west flowing rivers in the neighbouring Kerala State by diverting them eastwards to increase irrigation facilities in our State. The Central Government have appointed a Technical Committee in this regard.

Government are also taking steps for modernising the existing old irrigation systems, and extending irrigation facilities by conserving water as a result of modernisation in a phased programme.

With the available water potential, the Government are taking and will continue to take all steps for expanding the irrigation facilities to the maximum extent feasible. ●

I.R.D.P. is the current topic discussed and much talked about in these days by planners, Administrators, Politicians and the common man. Is it merely another slogan, which will fade away in course of time? Is I.R.D.P. simply just another special programme launched by the Government? Or is it the real remedy and panacea of the rural ills and a hope of the weaker sections who are in the most deplorable condition in our country.

What is I. R. D. P. ? How is it different from the programmes launched and tried in this country? To have a proper perspective and understanding, it is essential to look back critically in an unbiased way the impact of the various schemes implemented hitherto in this country their strong points, the achievements and also the failures and weaknesses.

In the past, several *ad hoc* projects like PIREP, CSRE, Area Development, SFDA, DPAP and such other numerous programmes have been tried through out the country to generate more employment and also increase the standard of living of the people. The impact of these *ad hoc* schemes was only marginal and it did not bring about desired effect of reaching the poor masses. The benefits did not trickle down to the weaker sections.

Similarly Community Development Programme, started in 1952 vigorously implemented initially with the people's participation had far reaching effects on the community as a whole. The enthusiasm shown in the nascent stage in the implementation of the Community Development Programme slowly waned and it has become senile, sterile and stereotyped. One of the significant benefits of the Community Development Programme is, it has resulted in rural assets and contributed to the infrastructural facilities in the rural areas. Again, the focus was not on the weaker sections as the Community Development Programme was designed for all segments of society. All the above said special and regular programmes had a wide coverage, but failed to concentrate on the rural poor. Consequently, the neglected poor became poorer and it has been estimated approximately despite all these programmes that 60% of the people are now living under the poverty line, the bulk of these



I.R.D.P.

The Hope of the WEAKER SECTIONS

By
M. JAMES VICTOR

constitute the helpless weaker sections and the rural poor.

The second major Himalayan problem facing the country, partly due to population explosion and certain other factors is the unemployment of educated and uneducated people. It has been estimated in 1973 that there are about 5000 million unemployed mandays in a year in the rural areas. The magnitude of rural unemployment is estimated as 4 million persons in the category of "Chronically unemployed" for the country as a whole. But it does not reflect the basic malady of the employment situation in the country which is of under employment. Under employment is another gigantic problem to be tackled, especially in the rural areas.

How to bridge the gap and lift the poor masses above the poverty

line is the grim problem facing us. And the big challenge. Another gigantic problem facing the country is the rural unemployment and under employment, which is closely associated with rural poverty.

Our planners awoke to the reality of the magnitude of this problem and began to plug the loopholes, rectify the defects found in past failures and evolved a new strategy, a package of programmes and schemes, a workable methodology with special emphasis and concern for the weaker sections. It has been named rightly as Integrated Rural Development. I.R.D. may therefore be defined as Integrated Development of the area and the people through optimum development and utilisation of local resources—physical, biological and human and by bringing about necessary institutional, structural and attitudinal changes and by delivering a package

of services to encompass not only the economic field i.e. agriculture and rural industries but also the establishment of the required social infrastructure and services in the area of health and nutrition, sanitation, housing, drinking water and literacy, with the ultimate objectives of improving the quality of life of the 'rural poor and the rural weak.' It implies functional, spatial and temporal integration of all these parameters. Thus the I.R.D. is a multifacet framework involving a multi-disciplinary approach. In this process, self-help and community participation have a paramount role.

Objective and strategy :

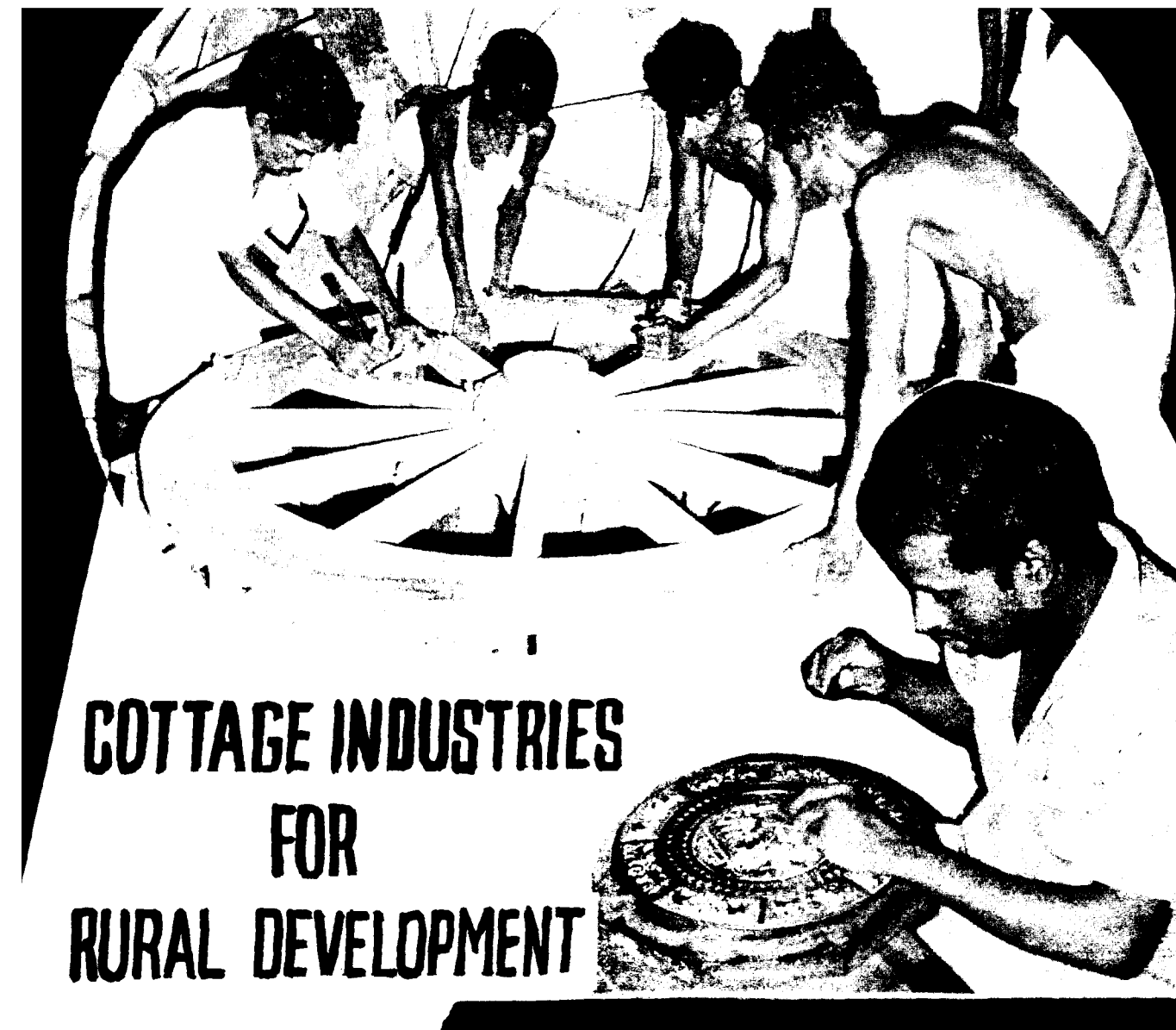
The objective of this scheme of I.R.D. is to provide full employment through production programmes in a selected area. The objective is to be achieved by earmarking additional allocations for which one of the selected blocks in such identified schemes as are suitable for the particular area. The schemes are designed to generate additional employment and raise the income level of the identified target groups consisting of small and marginal farmers, agricultural labourers rural artisans and persons belonging to Scheduled Castes and Scheduled Tribes. 2,000 blocks in our country which are mostly covered by any one or more of the special programmes of SFDA, Drought Prone Area Development Programme etc. have been taken up for intensive and integrated rural development



during 1978-79. 300 blocks will be taken up every year during the Sixth Five Year Plan period.

In Tamil Nadu 161 blocks have been selected, 100 from SFDA, 30 from DPAP blocks and 31 blocks not covered by any special programmes. The Government of India, has provided financial assistance to the tune of Rs. 537 lakhs during 1979-80. Institutional finance has played a major role in implementing the I.R.D. Credit mobilised through Banks runs to 1118 lakhs. During the current year it is proposed to take up 26 additional blocks under I. R. D.

This programme is designed for the period of 5 years and almost all the 374 blocks will be brought under its coverage within the period of next 4 years. Thiru B. Sivaraman, formerly Planning Commission Member who visited the Uthiramerur blocks of Tamil Nadu was very much impressed with the speed with which I.R.D. is being implemented in Tamil Nadu. Block Level Planning is one of the pre-requisites for implementing this programme and the unique feature of block level planning is the identification of the individual households, their felt needs, their aptitudes, their land holdings, Income etc. Such an indepth survey is the basic foundation on which I.R.D. is being implemented. In Tamil Nadu 4,40,970 families have been identified and within a short period of about five months as the actual implementation of the scheme was from October/November 78 only. 1,42,000 poor families have been benefitted by this scheme. This is a remarkable and record of achievement. Two more separate ancillary schemes like E.G.S. and self-sufficiency scheme of the blocks in a phased manner have also been taken up simultaneously during this year in Tamil Nadu and these two schemes may be compared to the rails on which I.R.D. can move to its destination namely the weaker sections of the society. I.R.D. is indeed the hope of the weaker sections in Tamil Nadu.



COTTAGE INDUSTRIES FOR RURAL DEVELOPMENT

THE place of Cottage Industries in our national economy has been the subject of keen controversy and is yet to be considered in its perspective. India is a land of villages and the only way to build up the country is to rebuild and revitalise the villages. The biggest of the problems of our villages is poverty. The Royal Commission on Agriculture rightly pointed out that the cultivator "Labours not for profit, not for net return, but for subsistence."

More than 80% of our population live in the rural areas. The entire rural population depend on agriculture for their subsistence in one way or other. Indian agriculture continues to depend upon monsoon and every failure of monsoon which is too frequent in India impoverishes the agricultural economy. The pressure on land is increasing day by day. It has been,

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ADDITIONAL DIRECTOR,
RURAL DEVELOPMENT.

well said that a nation that depends on agriculture for its livelihood depends upon a broken reed which can never—in the very nature of the case—ensure economic stability. The available land for cultivation is fixed and the law of Diminishing return operates more quickly in agriculture than in industries.

To arrest the further economic deprivation of the rural masses, an organised effort has to be made by providing alternative employment to the villagers. At least 50% of the existing rural population should be employed in other occupations. These employment opportunities should be made available at the villages where they live. The villagers cannot be trained overnight in

operating complicated machineries. They cannot also be expected to invest huge amount in the proposed industry. It should be more labour intensive than capital intensive. Only village and cottage industries can satisfy these conditions. Large scale industries with huge and costly machineries can never be the answer in such conditions. Hence, the introduction of labour intensive, small scale and cottage industries is the need of the hour and it will go a long way in providing employment opportunities to the rural mass in their place of residence. This will facilitate in stopping the exodus of the rural masses to the urban areas and thereby create many more problems in the already over crowded urban areas. The development of cottage industries can increase the purchasing power since it seeks to utilise leisure and reorganise the economic life of rural masses.



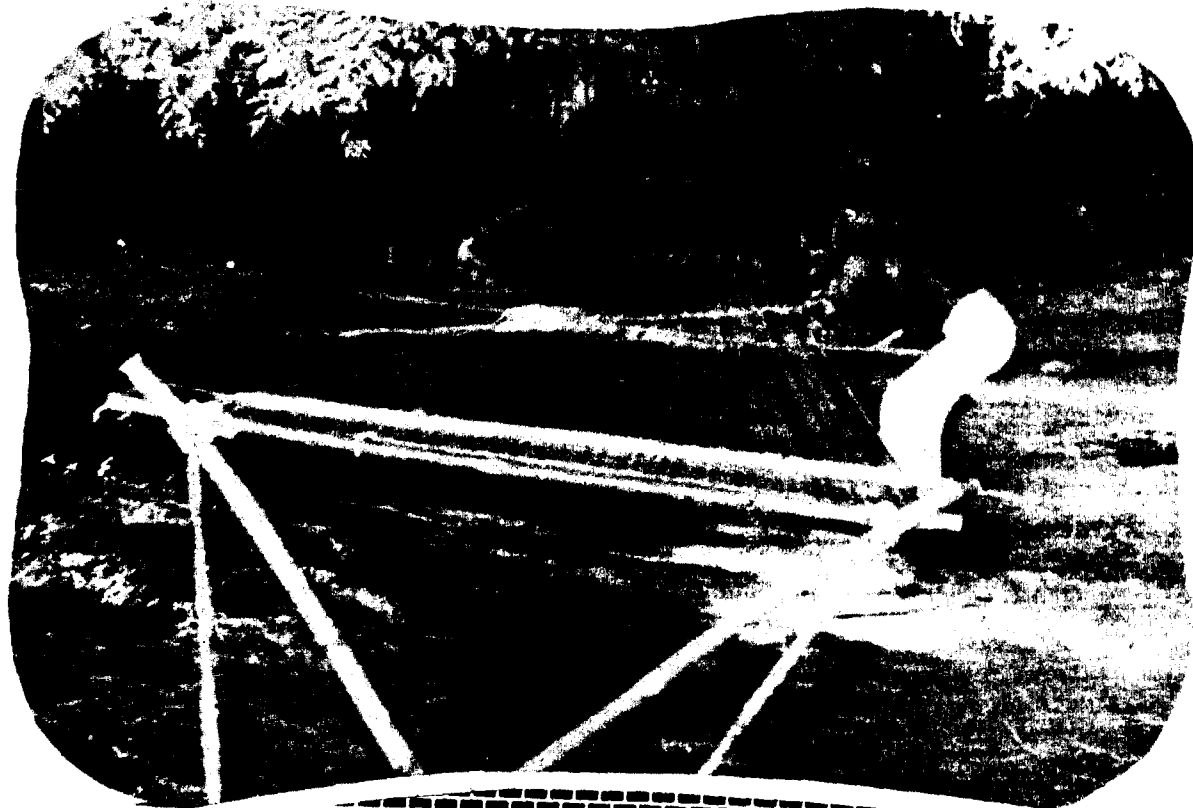
The programme of development of rural industries in the first two plans has been slow and it has not yet made any appreciable impact on village economy. In the first two plans, a few industries were selected for development. Though these were intended to be selected on the basis of local availability of raw materials, skills and markets in the ultimate the choice was made on an adhoc and experimental basis. In the light of the results achieved it seems necessary that some change in the approach to this whole problem is called for.

The programme of rural industrial development short aims at

improving the local traditional skills and introducing new skills, in providing common service facilities, and generally assisting rural artisans to stand on their own legs and contribute effectively to the rural economy.

Under the community Development Programme, provision was made available for the development of industries under the schematic heads of "Rural Arts Crafts and other industries." In the national Extension Service Blocks there were no similar provision. Subsequently when the distinction of the C. D. & N.E.S. Blocks was abolished under the revised financial pattern from April 1958, a grant was provided

depending upon the stage of the blocks. Subsequently, during the third five year plan, a uniform provision of Rs. 50,000 was made for all blocks. The schematic provision made under Rural Arts and Crafts was treated as nucleus funds and the provision made by the all India Boards like the All India Handicrafts Board, Khadi and Village Industries Commission etc. are to be fully involved in the development of industries in the block areas. All the provisions were routed through the Director of Industries and Commerce. Consequently to effect a co-ordinated development of various industrial programme, the Director of Industries and Commerce



was made responsible for the implementation of the industries programme in Blocks. Even from the initial stages, he was made responsible for the sanction, execution, and implementation of the rural arts and crafts programme and also the other industrial programmes. The Director of Industries and Commerce was made responsible for the administering the funds and all schemes relating to cottage industries, village industries, small scale industries, and rural arts and crafts programmes from 1953- to 1961.

Even before this, improved tools were distributed in the selected Firkas under the Firka development and Rural Welfare Scheme and controlled articles like iron and steels were also distributed to the artisans. Even these schemes were administered by the technical instructors working under the Director of Industries and Commerce. Hence, the association of the Director of Industries and Commerce with the industries programme in blocks could be traced from 1947 onwards. But the programme relating to the rural arts and crafts which was attended to by the Director of Industries and Commerce from 1947 to 1961 was entrusted for implementation by the State Khadi and Village Industries Board with effect from 1-4-61. These units were subsequently transferred to the P.Us. by the K. & V. I. Board. The T. N. K. & V. I. Board was made the P. Us. administratively responsible for the implementation of the programme. The technical responsibility vested with the Khadi board. The schemes are to be formulated by the P. Us. and technically scrutinised by the officers of the T. N. K. & V. I. Board. The units transferred to the P. Us. were run as training centres or Training cum—Production Centres. Some of these centres like Carpentry, Blacksmithy, Carpentry-cum-Blacksmithy, Tailoring, cumbly weaving, mat weaving, bell metal, Pith unit, cane and Bamboo unit, Chalk, crayon units etc. were subsequently converted to production units. Before converting the above units as production units the artisans and other people living in the block areas were given training and were made to increase their livelihood by utilising the training they got from these centres by using improved technology. These centres provided employment to the artisans and thereby increased their earning. The other persons who got trained in the training centres

earned additional income during their spare time by utilising the training they received in these centres. Under Rural Arts Crafts and Industries programme functioning in the Panchayat Unions, 198 units and 28 bee keeping colonies were functioning in the Panchayat Unions and 389 persons including 29 bee fieldmen are employed besides giving employment to three thousand workers in the above units.

As a new industrial policy, Government of India Ministry of Industry have suggested the setting up of D. I. Cs. in every Districts so as to provide through a single agency all the services and supports required for small and village industries.

In pursuance of this policy, Government have set up D. I. Cs. in eight Districts initially to promote industries in rural and Backward areas and to provide employment opportunities in large numbers. Government have also sanctioned necessary staff to man these centres. The intention of the Government in starting D. I. Cs. is to provide all facilities including financial assistance under one roof to the prospective entrepreneurs who are willing to start new industries in the rural areas. Government have also minimised the procedural delays in getting clearances from the local bodies for starting new industries in the rural areas. Financial assistance for starting new industries or reviving sick industries is also provided from the financing institutions through the D. I. Cs. After the introduction of D. I. Cs. technically trained persons from the rural areas have come forward to start new industries in rural and backward areas by utilising the assistance given by the D. I. Cs.

After the formation of the D.I.Cs. and upto 31st May 1979 the number of persons who were given employment is 23,580 and a sum of Rs. 167.14 lakhs have been given as financial assistance to 900 units through banks. Financial assistance to the tune of Rs. 17,33,795 has been given to 3081 artisans.

To examine the scope for creation of employment through rural industries with specific emphasis on household and cottage industries, Government constituted a committee on February 78 under the Chairmanship of Dr. Nayudamma former Director General of Council of Scientific and Industrial Research,

Madras. The Committee have submitted its recommendation to Government. In its recommendations the committee have suggested several new industries depending upon the availability of raw materials in the rural areas. The recommendations are being examined by the Government and the new industries will be started in the rural areas on the basis of recommendations of the committee.



The improvement of village economy depend upon the industrialisation of the rural areas to a large extent. The exodus of villagers to urban areas is being prevented by providing employment opportunities to the villagers by starting new industries in their areas. The development of industries in the rural areas will boost the economy of the villagers and also increase the purchasing power of the villagers to minimise their dependence upon the urban areas for their daily requirements.

It is hoped that with the renewed efforts on the part of the State and Central Governments by establishing D. I. Cs. and other similar projects, the rural areas are expected to usher in a new era of prosperity with better standard of life resulting in all round development.

UF the 600 million people living in this country 1/3 is said to go to bed hungry every night; they suffer from under Nutrition and Malnutrition. Because of this, Pre-school children even lack the energy to drive away the flies gathering at their open mouths. 12 year old children look like 8 years old, women of 35 look like 60 year old women. Apart from this, thousands of people in the country, especially children below five suffer from deficiency diseases like Kwashiorker, Marasums, impaired vision, permanent blindness followed by high rate of mortality and morbidity. All these maladies are due to lack of proper nutrition. Children below 5, pregnant and nursing mothers are most vulnerable sections affected by mal-nutrition.

According to the study conducted by NIN, in Tamil Nadu, the standard of nutrition of the people is very low, when compared even to all India average. The actual intake of food in the state falls far below the standard requirements of 2400 calories and 55 gms of protein, for adults and it is more than 1/3 less than the requirements for children, pregnant and nursing mothers. There is wide prevalence of deficiency of Vitamin A, Iron and B. Complex deficiency especially among the vulnerable group.

Eventhough poverty is the major cause of mal-nutrition in children it is mainly due to the lack of knowledge of mothers about the diets of children, proper feeding practice and simple methods of child care. Even the diets of others in the family can be greatly improved with the available income and local resources

if women are educated about the importance of nutrition, better methods of cooking and dietary habits and also helped to produce the critical foods required, by themselves.

Applied Nutrition Programme is thus an educational programme at village and family levels that aims to bring about improvements in the diets of the villagers by education through self-help, improved production and improved consumption. The main objectives of the programme are :

1. To educate mothers, school children and other members of the village community about the types and qualities to be consumed.
2. To encourage the local production of pulses, greenleafy vegetables, other vegetables, fruits and also foods of animal origin like eggs and fish.
3. To encourage proper method of storage and preservation of foods at family and village levels and to increase the knowledge of women and school children about proper methods of preparation of foods by demonstration.
4. To increase the knowledge of mothers about the diets of infants and pre school children and simple aspects of child care and family welfare planning.
5. To utilise the cooperation of the health personnel to ensure necessary health care

for the vulnerable group and also to organise a feeding programme for other mal-nourished children, pregnant and nursing mothers with the food materials produced under the programme.

Applied nutrition programme was started in Tamil Nadu with the assistance of Unicef and Govt. of India in 1962-63 with 7 blocks. Now the programme has covered 75 blocks of which 38 blocks have entered the post operational period, after an operational period of 5 years and 37 are in the operational period. In the post operational blocks the activities should be continued with the departmental funds. The period of operation for the blocks started from 1974-75 are 6 years with a preliminary year for planning and training the personnel for drawing up an effective comprehensive plan for the operational period.

A comprehensive need based plan for each ANP block is drawn up based on a base line survey and assessing the local resources and leadership with the financial provision available from UNICEF, Govt. of India and State Government. Unicef provides Rs.20,000 per block for 5 years, Government of India Rs. 34,000 per year per block for the production components and State Government spends Rs.51,000 per block per year on Production component and and Rs. 85,000 on Nutrition Education. As Unicef aid is not available for the blocks started in 1978-79, Government of India is giving special additional allotment of Rs. 30,000 per year

per block. Pt. Un contributes Rupees 1.5 Lakhs towards the cost of 30 K.K. Kappagams Buildings. The financial outlay per block for the operational period works out to Rs. 10 to 12 lakhs. The Budget estimate under the State Government budget for 1979-80 is Rs. 45 lakhs for the Scheme.

Under Nutrition Education training of all the officials and non-officials concerned is an important aspect. All the R.E.T.Cs. and S.I.C.D. Bhavanisagar and the N.R.C. Erskine Hospital Madurai are involved in the training of personnel. Apart from this, Block level training is conducted every year for Mahalir Mandram members and convenors, Presidents and Chairman of the Pt. Uns, Poultry growers. by the A.N.P. Instructresses attached to the Sri A.H.S. College, Coimbatore and the R.E.T.C. extension staff. 450 to 500 persons are trained per block including levels from District to the village.

Propaganda meetings, exhibitions, competitions, drama and film shows are conducted in villages to impart Nutrition Education to all the people in villages.

For young girls and women two demonstrations on Nutrition are conducted every month in 30 Mahalir Mandrams in each block. Demonstrations equipments and demonstrative charges are provided for those Mahalir Mandrams. Talks and discussions on Nutrition, Child care, family welfare planning, health and environmental sanitation are arranged in these M.Ms. every month. Transistor radios are supplied to selected M.Ms. and women are encouraged to listen to Radio programmes on the above subject.

Demonstration feeding programme is organised to convince the mothers about the importance of Nutrition for good health. 30 K.K.S. are organised in each block and feeding organised for 120 beneficiaries. The 40 pre school children between the ages of 2-6 years, 40 other children between 6 months and 6 years and 40 pregnant and nursing mothers are selected by the M.Os. of the Local Primary Health Centres. The vegetables, Greens, Pulses, fruits, eggs, and fish produced by the production units of the programme and the food materials received from CARE is utilised to feed 120 beneficiaries per day per centre for 300 days in the year. The 30 K.K. in the A.N.P. Block are provided educational tovs.



cooking utensils, trained Balasevikas and pucca buildings at a cost of Rs. 10,000 per building. So far 1025 Kappagams are organised in the 75 A.N.P. Blocks and 600 K.K. buildings have been completed. It is planned to construct 280 buildings during 1979-80. After handing over 594 K.K. of the Post ANP to the Social Welfare Department there are 431 K.Ks. in the 37 on going blocks with a feeding programme for 34, 480 children and 17240 pregnant and nursing mothers.

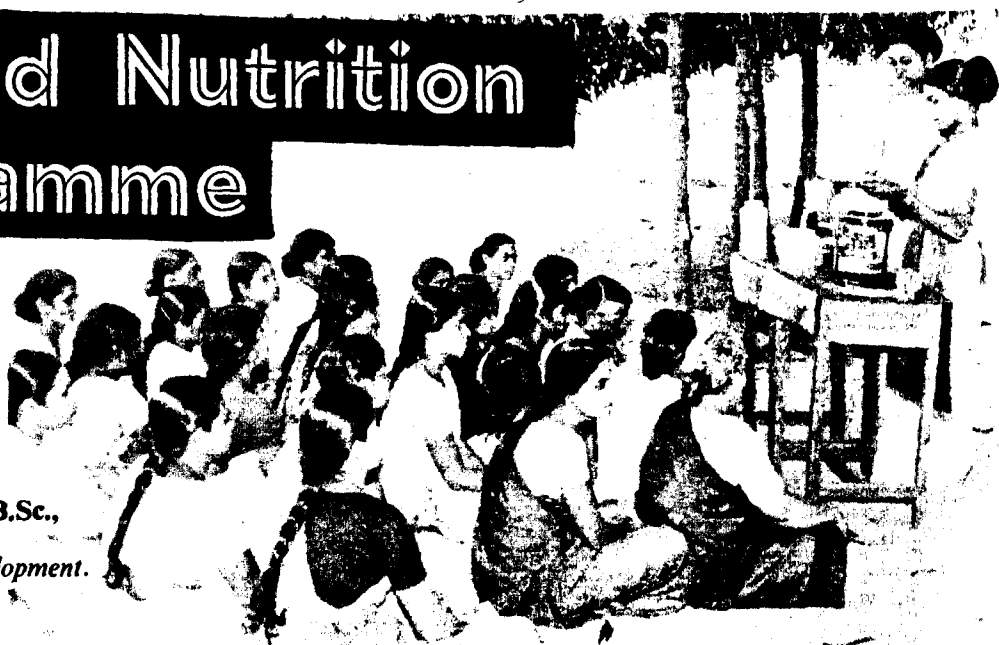
Nutrition Education and supplementary feeding will not solve the problem of nutrition. More protective foods have to be made available at family and of village level.

Hence the programme of production is considered an important component of A.N.P. To encourage the increased production of green leafy vegetables, other vegetables, pulses and fruits, Headquarters nursery is organised in each Block headquarters. Every year 10,000 Morniga seedlings and 50,000 Pappaya seedlings are produced and distributed to Home gardens in the villages. In addition every year fruit seedlings of Guava, Sapota, Gooseberrys etc. worth Rs. 3000 are distributed for home gardens in each Block areas. So far 74,383 Home gardens have been organised under the programme. All schools with land and water facilities are encouraged to raise the vegetable

Applied Nutrition Programme

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gardens and assistance in the shape of supply of seeds, seedlings, fertilisers, sinking of wells and pump sets, etc. are provided. These school gardens are utilised for imparting Nutrition Education to the boys by involving them in the production of nutritive vegetable and fruits and consuming them in the midday meals. 1944 school gardens above 30 cents have been organised so far.

In order to demonstrate to the community the production of Nutritiously rich vegetables, greens, pulses and fruits one or two community gardens are started in each Block. Nutritious vegetables and greens are produced every season and fruit trees like gooseberry, Pappaya, Mango, Sapota west Indian cherries etc. are planted. A portion of the produce is diverted to the supplementary feeding programme in K.K. 55 Community gardens have been organised in the blocks started since 1970.71.

For providing for the supply of more animal protein in village areas poultry production is encouraged. In each block 10 grower farms are organised for the supply of pullets to the programme. To encourage the needy low income group to benefit from poultry growing five birds and a cockrel are provided at 50% cost. This 50% is received either in cash or in kind as eggs and supplied to the K.Ks. for feeding programme for pre-school children. Two eggs per week per child are supplied to all the feeding centres in the Blocks.

To encourage the production of more eggs and its availability in

villages to increase the family income, deep litter units are also started. 20 birds and 2 cockrels at 50% cost are supplied and this cost is either recovered in cash or eggs. If cash is received eggs are purchased and supplied for feeding programme.

In each block 10 grower farms are organised every year 50 deep litter Units and 500 Backyard units during the operational period.

To provide for the availability of more fish in the area all the tanks with water atleast for 6 to 8 months under the control of Pt.Un. are cleared and stocked with fingerlings supplied by Fisheries Department. When they are mature they are caught and supplied for feeding programme. When more fish is harvested it is sold in the villages at low cost.

Apart from these programmes of productions certain special programmes have been introduced to increase the earning capacity of women of the weaker sections of the community. It is a well known fact that when more money is available



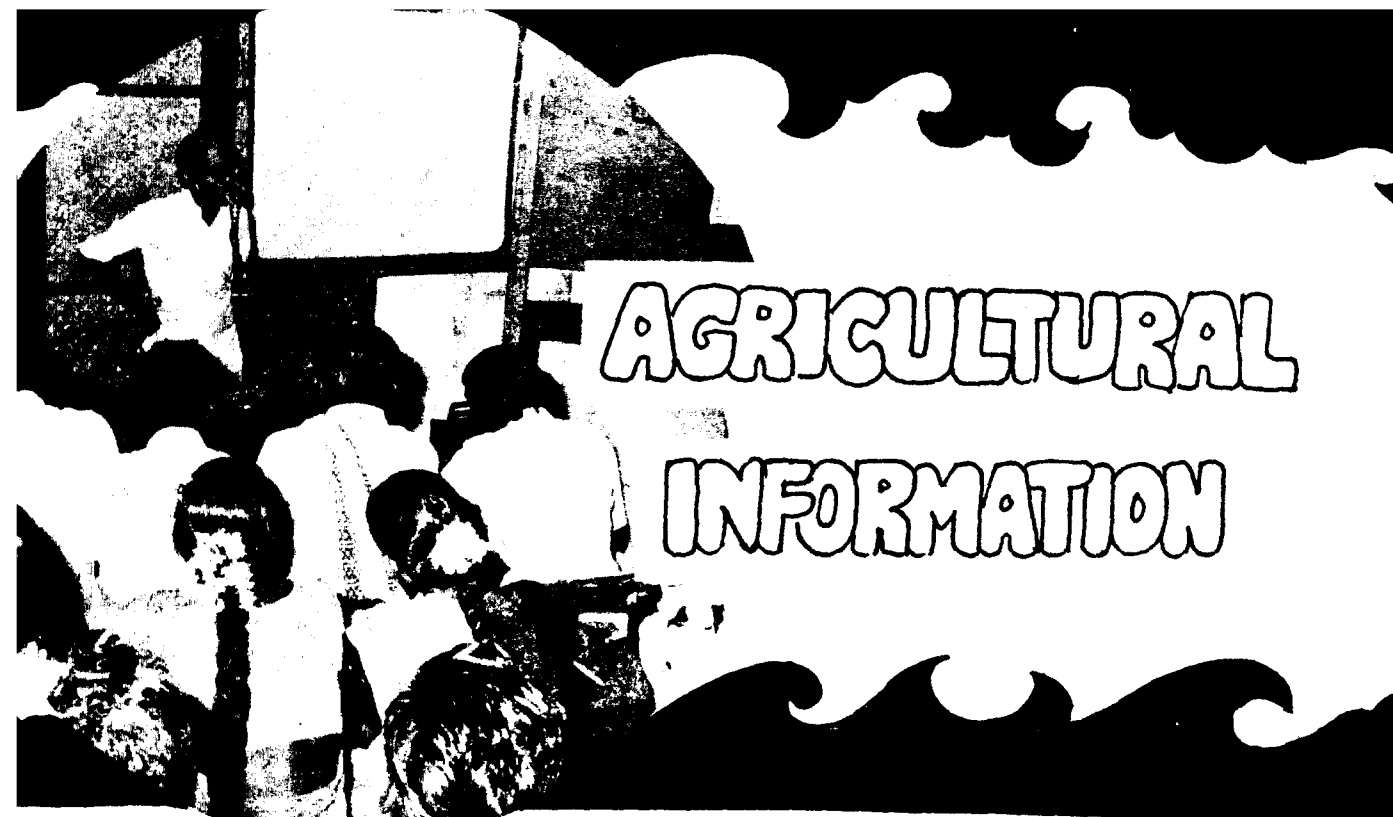
in women's hands it will go to improve the nutrition of the small children in the family. With this aim in view, goat rearing, mat weaving, sericulture activities are planned under the programme. Under the milch goat rearing project 394 goats have been supplied to the selected members of the M. MS. belonging to the weaker sections of the community. In each M.M. 5 she goats and he goat are supplied at the rate of one she goat to each member on condition that she gives a she goat to another member, free of cost, when it litters. This has to be continued till all members received a she goat each. This will increase the supply of milk for children in needy families and also increase the earning of women.

For any programme for improving the nutritional status of the people, especially children below 6 years, pregnant and nursing mothers, providing health care is a must. In A.N.P. the M. Os. of P.H.Cs. in the Block and the para-medical staff attached to them are expected to provide the health coverage for the programme. Immunisation of all children in the villages where K.Ks. are functioning is carried out. Children are immunised against small pox, T.B. Polio and also administered with D.P.T. Vaccine. The beneficiaries for the feeding programme are selected by them based on nutritional deficiency. Periodical health check up of the beneficiaries of the feeding programme is undertaken and those suffering from various illness either treated or referred to Hospitals. Health cards are being maintained for pre-school children and the mothers educated about the importance of child care.

In addition the importance of safe drinking water and clean environment is stressed in villages to prevent infection and infestation of worms in children in villages.

In one A.N.P. Block i.e. in Tirupathur in North Arcot District, programme for Intensive Development is planned with additional Unicef assistance of about 8 lakhs.

A. N. P. is thus the only integrated nutrition programme in operation in the country, which includes Nutrition Education, Production of Nutritive foods and its consumption with a provision for health coverage with the aim of improving the nutrition, of the people in villages especially the children and the mother.



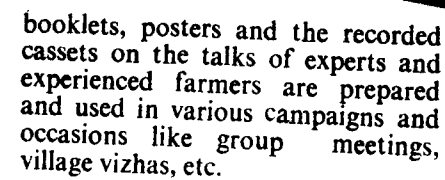
THE technique not adopted being to bridge the gap between the Researcher and the Farmer. The functioning of farm information units are symbiotic, because, it should feed both the farmer and the researcher about the innovation and the problems respectively. One way it carries the research findings to the field and in other way posts the field problems to the researchers. This work is now carried out by the specially trained personnel through various media of audio, visual and audio-visual nature.

In Tamil Nadu about all the districts are having their farm in-

formation units attached to the Deputy Director of Agricultural Incharge of the district. The unit comprises of one District Agricultural Officer as the unit head with one Silk Screen Designer and two artists for preparation of proper visual supports. Besides, there is a cine-operator and a information van with built-in public address system for propaganda in the Rural areas.

These units, in accordance with the regular development programmes and strategies designed for the year, plan their activities to carry the timely farm messages in the form understandable by the farming folk. Their activities widely cover all means of communication, right from individual contact to Mass media approach. Necessary audio and visual supports like pamphlets,





With a view to monitor the field information activities and to render necessary technical and operation support to the field officers a separate state level unit is functioning at the headquarters attached to the Directorate of Agriculture, Madras. This unit is headed by the District Agricultural Officer and supported by 3 Deputy Agricultural Officers with a team of artists. This unit mainly acts as a intermediary between the Researchers and extension officers. The activities mainly comprises of Publication of research findings, production of Documentary films, feeding the mass media like Radio, Television, Press etc. Organising the State Level expositions and reviewing the dis-

1 directs activities in accordance with
1 the Corporate objectives.

A full-fledged press is maintained for publications. A monthly magazine called "The Farm Science and a Monthly Reporter" published by this unit carry the articles on research and general interests respectively. Besides, books on special subjects authored by the specialists are being published and they are issued free of cost both for the farmers and extension workers.

Documentary films on subjects of current interest are being produced with the assistance of Tamil Nadu Films Division, Adayar, Madras. During 1978-79 films on Sugargane, Dry farming and Agricultural Engineering were produced. These films are distributed through the public relations officers of the districts for wide screening in the theaters. Besides they are being used by our information officers

attached to the district units for their campaigns.

The Tourist and Festival fairs are the opportunities for the large scale communication of farm messages and achievements to the urban, semiurban and the surrounding rural mass about the situation and facilities available for farm production. Exhibitions are conducted on such occasions to serve the above purpose.

Thus the farm information units play vital role in bringing the required change in the field with ultimate objective of increasing "Farm Productivity" which the tire gamut of Agricultural activities in the national level aim at. With the increased sophistication media and farm innovations task of the information units is great which they approach with grace.



