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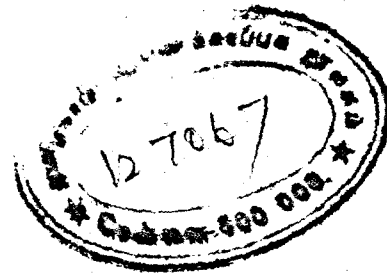
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EDITORIAL - SOME HIGHLIGHTS

I. General Economic Scene

State

VIII Plan

The State Planning Commission met in July and reviewed the Draft Approach Paper for the VIII Plan. The Approach sets forth the objective as being to reduce unemployment (which is very high as the state occupies the second place in the country) and lower the high poverty levels which the 38th round of NSS places at 39.5 per cent (which like the all India figure of 37.4 per cent may be an under estimate) and for these purposes proposes developing agriculture and small and village industries, laying the basis for long term industrial investment and revival and develop further the other services — health, education, water supply and programmes for SC and ST. It established a range as far as the VIII Plan financial requirement is concerned in view of the many uncertainties, notably the Union Planning Commission's Approach Paper for the VIII Plan being still

under preparation and the IX Finance Commission being authorised to review both Plan and non Plan finances for the VIII Plan, (its work being still underway). The range is around 50 per cent more than double the VII Plan outlay of Rs. 5750 crores which gives a range of Rs. 8500 crores to Rs. 11,500 crores. On this basis, the Commission has set up 18 task forces for 18 subjects of the VIII Plan, with the aim of the task forces completing their work by the middle of September, so that the Plan can be approved by the government at October end.

Climate and Prices

July recorded widespread rains in the state under the south west monsoon. In early July there was heavy rain in the delta region as well as in North Arcot (Vellore 52 mm), Chengai Anna (Ponneri 53 mm), Tiruchirapalli (Lalgudi 65 mm), Thanjavur (Tiruvaiyaru 80 mm), Madurai, Coimbatore, Periyar and Pudukkottai. In mid July areas like Tirupur,

Erode, Bhavani, Periyar catchment area received good rains. The last week of July saw heavy rains combined with high velocity winds (which was part of an all India phenomenon) flooding the south states, particularly Idukki in Kerala, Dakshina Kannada in Karnataka, Kakinada, Rajamundry and Godavari districts in AP. Tamil Nadu during this period also received heavy rains without the heavy flood damage experienced by other southern states amounting to rain havoc in those areas. The rains in the state disrupted power supply, communication and traffic and the loss of 10 lives. On prices, the CSO's monthly abstract for May reports that the Index number of consumer prices for industrial workers continues to remain unchanged from February at 843 (which has been the level for three months November 88 to January 89); the index number of consumer prices for agricultural labourers fell sharply by 21 points to 691 in February due to the even greater fall in food prices by 26 points, and fell again by 6 points to 685 in March, reflecting in part the steeper fall in food prices by 12 points; and the revised consumer price index number for the urban non manual employees shows no change in March from the February index for Madras, Coimbatore, Salem and Tiruchirapalli and a 1 point decline to 143 in March for Madurai.

Power

Power in July in the state was fast returning to normal. On July 1, the government announced reduction of the 60 per cent cut on HT industries of 130 KVA and above to 40 per cent benefitting 1100 industries, abolishing a 60 per cent cut on LT units and HT units below 130 KVA, increase of power to pumpsets from 4 hours during the

day and night to 6 hours during the day and 8 hours during the night. The President on that day laid the foundation stone for the Madras Thermal Power stage I at Ennore at a cost of Rs. 540 crores which has risen to Rs. 721 crores due to the 2 year delay (See Vol. XVIII p. 2). The unit will be ready by 1992. The storage in the hydel reservoirs of the state have been increasing because of higher inflows particularly during the last fortnight of July, leading to hopes of further relaxation which occurred on July 25 when power cut on HT units was further reduced to 20 per cent. The second unit of the Kalpakkam Atomic power plant went out of action twice during July, the first unit generating 70-100 MW since June 24. The TN Electricity Board announced an increase in power tariff for domestic consumers from August which covers 19 lakh consumers, 18 lakh consumers being exempted as they consumed less than 25 units a month.

For the country as a whole, the power situation improved because of the good monsoon except for AP where, however, the power cut on HT consumers is to be reduced by 15 per cent and the 2 hour power cut on domestic consumers lifted, Kerala where the power cut continues because till the last week of July its hydel reservoirs did not receive adequate inflow and Karnataka where the 40 per cent power cut was maintained. For the South as a whole, the energy shortage at the end of the VII Plan is 18.8 per cent compared to the all India shortage of 6 per cent and a continuing 18.1 per cent shortage at the end of the VIII Plan. There is need for special attention to this region by the Union authorities. The power generation target for 1989-90 is 251.30

billion units against a record 220.978 units generated in 1988-89. REC reports that it will be gradually phase out direct financing of electrification projects and will rely on supply of equipment and systems to the State Electricity Boards because of its cost effectiveness and its meeting the resource scarcity of the boards. For the future, the government has agreed to the installation of 2 reactors of 1000 MW by Soviet experts and IBRD loan of \$700 million for Koyna hydel (1000 MW), Farakku thermal III stage (500 MW) and Srinagar hydel of UP (330 MW). The Union government announced its decision to revamp the Power Finance Corporations programme to renovate and modernise thermal plants. The Neyveli Lignite Corporation announces its willingness to let private parties set up lignite based thermal plants in the south, while retaining the mining rights. With the completion of the II stage Salal hydel project (345 MW), during the VIII Plan, which is in addition to the I stage (345 MW) the power position in the North covering Jammu, Kashmir, Punjab, Haryana and Delhi will have improved power. The government states that it will rephase the long term perspective plan prepared for the development of non conventional energy sources upto 2001, because of the increase in plan allocations to reach its target have not come about. For instance for an annual energy generation equal to 250 million tonnes of coal replacement Rs.43,529 crores will be needed over 15 years, of which government must provide Rs. 11,780 crores. For the VII Plan, the Department asked for an allocation of Rs.1424 crores but received only Rs.600 crores. The same story applies to energy generation through biomass, wind energy and solar energy. If this kind of financial allocation is the

trend for the VIII and IX Plans, the perspective plan will have to reduce its targets.

Water

On Mettur there is good as well as bad news. The bad news is that the release of water from the Mettur dams will be delayed till August 21, which means that 4.8 lakh hectares in Thanjavur and 80,000 hectares in other districts would have to wait till then for water. The good news is that from July 25 there was a sharp increase in the level of the Mettur reservoir, averaging a daily inflow of 70,000 cusecs from the Kabini reservoir and 10,000 cusecs from the Amaravati reservoir. On 27 July the Mettur level stood at 57.4 feet and a possible 40 tmcft against a maximum of 120 ft. The Cauvery dispute with Karnataka was discussed at an all party meeting towards the end of July in Madras and it was decided that if the next meeting with Karnataka government did not result in agreement, the Union government will be requested to refer the dispute to a tribunal. The storage in the state's 15 major reservoirs has more than doubled during the last week of July, following the rains in their catchment areas. The storage has increased during the week from 34 tmcft to 72(+37 per cent) on which basis government is releasing water from them as follows: *Periyar* the combined storage of Periyar-Vaigai is 9.6 tmcft and from July 28 the 45,000 acres served by it is receiving water. *Amaravati* with the reservoir surplusing 10,000 cusecs, the ayacut of 31,200 acres is receiving water and the 21,500 acres under the new channel from August 1. *Bhavani sagar* with storage of 12.2 tmcft the ayacut of 14,000 acres is now open and the first term ayacut of

1,03,300 acres will be opened from August 15. *Parambikulam Aliyar* with its improved storage will be opened for irrigating 76500 acres from August 2. The government reports that 40 per cent of the work on Telugu Ganga has been completed to bring Krishna water to Madras. Metro water increased water supply on alternate days from July 1 to meet the situation arising out of the drop in the city water table and reduction in supply from private wells. The government reports that it has made an additional allocation of Rs.6.3 crores for drinking water to drought hit areas including sinking 1500 deep bore wells in Madras and other districts. It has also allocated Rs.17.40 lakhs to improve tanks to create additional storage. The national technology mission for drinking water has ordered Rs.10 crores of desalination plants to provide potable water to 52 villages in Tamil Nadu, AP, Rajasthan, Gujarat, Maharashtra, West Bengal and Haryana. Each plant will supply 10 litres of water per person per day for a population of 1000 to 10,000. The Union has allocated Rs. 204 crores to states as margin money to deal with the damage caused by the rains and floods.

Transport

A Rs. 10 crore micro processor based train delivery system with usual display is to be installed in the southern railway headquarters of Madras. The ongoing Bangalore/Jolarpet electrification scheme would be serviced by a remote controlled centre to be set up at Bangalore. Industry is being used by the Railways to gear itself to produce the increasingly sophisticated equipment which it is using. Because of the increasing financial burden this year, the government has finally decided that it

will not be in a position to share the cost of the Mass Rapid Transit System for Madras (See Vol.XIX p221). The Pallavan Transport Corporation reports that it has taken up a computerised traffic transportation net work study to bring about a safer, demand oriented, punctual and productive service to ensure operational efficiency and consumer satisfaction. It proposes to introduce during this financial year 150 more buses, at the rate of 30 per month from September. The state government states that it has sent a plan to the Union government for approval to expand the Cuddalore port, expanding the jetty and other improvements at a cost of Rs 50 crores. This will also help in the coal delivery to the thermal power station planned at Cuddalore.

Public distribution and new scales

The state's public distribution system needs 1.6 lakh tonnes of rice per month. It is getting 40,000 tonnes a month from the Union pool (down from 80,000 tonnes till January 1989). The state has asked for permission to buy 3 lakh tonnes from the surplus states of AP and Punjab but is allowed to purchase only 1.5 lakh tonnes. This reflects the tight position of rice supply in the country despite the good monsoon. Dealing with the problems of implementing the new pay scales, the government has decided on the minimum fitment benefit in basic pay to be increased from the proposed Rs. 100 to Rs. 150 which will cost the government an additional Rs. 21.25 crores a year. The minimum increase in total emoluments as a consequence will increase, from Rs. 185 to Rs. 250 per employee covering 7 lakh out of the 8.13 lakh employees. The government has also announced that the families of government

employees who die in harness will get Rs. 40,000 instead of the present Rs. 20,000 as compensation and for this the employee's contribution is to be increased from Rs. 3 to Rs. 5 per month.

District headquarters

NICNET reports that the work begun in March 1988 was completed in January 1989 under which the satellite based national computer communication network connecting district headquarters, state capitals and the union government became operational in the state. Its first task was the introduction of computerisation in the weekly monitoring of prices of paddy, rice, pulses and 34 other commodities. Next the public distribution system will be brought under it. The network will help the state ensure that development activities are equitably distributed among the districts. There is the danger that it may become an instrument of further centralisation.

National

Plan

The Planning Minister informed the panel of economists which met in July that the public sector outlay for the VIII Plan has been tentatively fixed at Rs. 350,000 crores at 1989-90 prices compared to the Rs. 180,000 crores for the Seventh Plan at 1984-85 prices. The need to raise the resources in a non inflationary manner is emphasised and for this the inflation needs to be brought down from the current annual 8 to 9 per cent to 4 to 5 per cent in the VIII Plan and a decision in the growth rate of money supply which

in view is 18 to 19 per cent, which is too high for a 5 per cent growth. The communications ministry announces a telecommunication perspective plan upto 2000 AD of Rs. 48,000 crores. Under it all telephone exchanges would be automated and subdivisional headquarters provided with STD facility during the VIII Plan and telephone facility extended to all villages in the IX Plan.

Prices

Price for June rose by 3.91 points, with the wholesale price index standing at 464.09 on July 1. On a point to point basis inflation was 8 per cent for the 12 month period. Increases in prices of newspapers, tea, copra, sugar contributed to the price rise along with prices of food articles and edible oil. For the previous week ending June 24, 1989, WPI rose by 8.1 per cent over the corresponding index for 1988. For June it showed a jump of 8.9 per cent over June 1988. This means that the WPI has been on the uptrend for 12 consecutive weeks, moving up by 18.69 points (4 per cent). Infact despite its being a good bumper crop year with a plentiful monsoon, the price in 1989-90 so far is double that of the corresponding period in 1988-89. One reason for this on the supply side is that both M1 (narrow money) and M3 (broad money) is larger this year than last year. This negates the claim put forward that the Indian economy has entered a period of disinflation since 1980 and that if this trend of tight money supply continues, this happy period of moderate economic growth under low inflationary conditions may come to an end. The data on growth of money supply put forward by RBI — M3 being Rs. 10,958 crores in March 1971 and Rs. 1,18,338 crores in March 1987, when the WPI rose

from 100.4 to 359.8 during this period does not support this thesis. From July 1, the wholesale price index base has been shifted from 1970-71 to 1981-82, the basket widened to include 447 items with 2371 quotations compared to the 360 items and 1295 quotation in the 1970-71 series, a) in basic metals 17 items have been added, b) in food articles 7 items are added, c) in non food 2 items are added, d) in minerals 5 items are added, e) in fruits, power light and lubricants 3 new items are added, f) in food products 4 new items are added, g) in beverages, tobacco and tobacco products 8 items have been reduced to 7 by merging whisky and country liquor, h) in textiles 5 new items are added, i) in wood and wood products 4 items have been reduced to 2, j) in paper and paper products 7 items are added, k) in leather and leather products the items have been reduced from 4 to 3 and l) in rubber and plastic products 8 items have been added. The wholesale price index for the week ended July 1 which was 464.09 under the 1970-71 base is 162.1 under the 1981-82 base. The reality of inflation is not affected by change of the base. A study of the National Institute of Public Finance and Policy noting the supremacy of VAT which extends through retail stage and falls on consumption of a country, concludes that the limited MODVAT operating in India has mitigated the harmful effects of cascading, arising from multi stage levy of excise tax on manufactures and is thus a major improvement on the excise tax system.

Finance Commission, Supplementary Demands and Bank and State Loans

The IX Finance Commission called a meeting of the finance ministers of the

states to discuss the devolution of funds from 1990-91 to 1994-95. It explained the possibility of evolving norms to assess revenue receipts and revenue expenditures of states and the union and the development of devolution criteria. There was agreement that the present level of resources to the state would not be reduced. The commission urged both the states and the union to control non plan expenditures to balance their revenue accounts. The finance ministers of all states agreed that the commission's aim at wiping out revenue deficits by 1994-95 (end of the VIII Plan) will not be attained which assumes according to the Finance Commission revenue growth by 6.5 per cent and expenditure by 2.5 per cent. The Commission's suggestion to alter the Gadgil formula was resisted by the more advanced states, as this would result in a decline of their share of union funds. The meeting was also critical of the inclusion for the first time of plan revenue expenditure and did not accept the justification that the inclusion of plan revenue expenditure in its assessment was necessary to eliminate revenue deficits for the states and union. There were many issues raised by individual states with West Bengal demanding a reduction in the loan component. Kerala demanding that the injustice done to it in the first interim report should not be repeated. Karnataka expressing itself against use of the efficiency criterion for devolution of income tax collections. All were critical of the normative approach and demanded the application of realistic norms. There was also a separate meeting of the special category states to discuss these policies. The government announced to the consultative committee that the 1988-89 deficit which the revised budget had shown as Rs. 7940

crores has now come down to Rs. 5800 crores. The explanation given for this large drop in the deficit is not very clear: it is in part attributed to large tax revenue (Rs. 628 crores), larger capital resources (not precisely known) reduction in expenditures under some heads (also not known definitely). There was also the accident of the uniform financial year which resulted in assessment for 2 years. It is very unlikely that these factors will be repeated to reduce the 1989-90 deficit. The monsoon session of the Lok Sabha passed supplementary demands for Rs. 774.75 crores, of which Rs. 500 crores was for Jawahar Rozgar Yojana, Rs. 43.75 crores on subsidies to new industries in backward areas and some arrears payments. The Plan component in this demand is Rs. 540 crores. Banks have used RBI's refinance facility to borrow Rs. 4220.82 crores during the week ending July 7 against 2174.24 crores for the previous week to meet the increased demand for funds by both industry and agriculture in this good monsoon year. RBI has completed the first tranche of borrowing by 14 states of Rs. 1700 crores and taking into account the permitted excess subscription which will make the total Rs. 1870 crores, UP is the largest borrower with Rs. 332 crores, Bihar Rs. 200 crores, AP Rs. 177 crores and Tamil Nadu Rs. 135 crores.

Stock Exchanges

The chairman of the Investment Corporation of India reports that 1988-89 stock market boom will continue because of a) an absence of fly by night operators posing as new entrepreneurs out to salvage the market, b) hardly any major defaults, and c) sharp increase in volume of turnover to around Rs. 130 crores per day in the stock markets.

This supported by good macro economic information such as the consent of the controller of capital issues increasing from Rs. 3600 crores in 1987-88 to a record Rs. 7917 crores in 1988-89 (the resources raised from the capital market rose from Rs. 3587 crores to Rs. 5267 crores) which indicates a far greater role for the capital market in the VIII Plan. This evaluation is supported by IBRD's report which states that India's stock exchanges list more companies than the stock members of any other country except the US. The number of listed companies on all India stock exchanges was 6017 in 1987, compared to 7181 in the US, 2135 in UK, 1912 in Japan and 650 in France. Describing the growth of Indian capital market as impressive, it says equity market capitalization on the Bombay exchange increased from \$11.8 billion in 1980 to \$19.4 billion in 1987, with average capitalisation being equal to 6.5 per cent annum. But there are also abuses like use of misleading pressures and insider trading and delays in shares allocation which should be corrected.

Economy

The south west monsoon has started very well in July raising hopes of a good agricultural year, the second in succession. After a short break it started again from mid July with tremendous force and fury, flooding the southern states, Maharashtra and giving good rains in Rajasthan, Punjab, Haryana, HP and Delhi. The Ministry Of Programme Implementation reports that there has been an increase of Rs. 23,298 crores in the cost of 174 projects under execution due to time over runs. The projects are in the atomic, coal, fertilisers mines, steel, chemicals area, and the cost escalation

is of the order of 74 per cent. Now the ministry must turn from this kind of repetitive reporting of a serious lack of programme implementation to precise suggestions as to how implementation can come nearer the agreed project costs.

Industry

CSO has reported that the industrial growth rate during the first 4 years of VII Plan is 8.5 per cent against the target of 8 per cent. During the current year 1989-90 the growth rate is expected to be 9 per cent. This means that for the VII Plan the target of 8 per cent growth will be attained, if not exceeded, as against the VI Plan's 5.5 per cent and the trend rate of 6 per cent and target of 7 per cent. During the VII Plan, manufactures which account for 77.1 per cent weight have done well. Electrical machinery, chemicals, and miscellaneous manufactures recorded 24.9 per cent, 13.3 per cent and 26.4 per cent growth. The refinery products and cement — recorded 7.5 per cent growth. The government ascribes this good record to the liberalisation policy which continued this year. 26 more drugs have been decontrolled, delicensing extended to telecom equipment, broad banding extended to glass fibre industry, micro processor based industrial control instrumentation systems, computer peripherals and other items like textiles, leather, chemicals, etc, broad banding for manufacture of HR steel strips and cold rolled sheets, minimum scales have been fixed for 14 more items of electrical equipment. The electronics industry has developed a perspective plan so that its turnover will touch Rs. 62,000 crores by 2000 AD. A conference of industries ministers meeting in July has decided that

rural industrialisation should be the main thrust of industrialisation and employment in the VIII Plan, which means raising the Khadi and Village industries to cover 3.5 lakh villages against the 2 lakh at present. The West Bengal government reports that it has persuaded workers in 2 sick industries to form cooperatives and run the units on their own. This is a major development and should be the start of workers cooperatives as one solution to the worrying and continuing problem of industrial sickness.

Public Sector Performance

BPE reports that the public sector enterprise earned in 1988-89 a record net profit of Rs. 3025 crores compared to Rs. 2187 crores for the previous year (an increase of 39 per cent). This is important because a) the non petroleum sector has made net profits and not losses, b) the number of profit making companies rose from 115 in 1987-88 to 120 in 1989-90 and the number of those making losses fell from 102 to 94, c) the improvement in net profits of non petroleum sector during 1988-89 was Rs. 524.71 crores compared to the previous year's Rs. 382.47 crores, d) gross sales increased by Rs. 6588 crores to Rs. 87,955 crores, e) better working capital management resulted in reduction of inventories by over Rs. 900 crores, f) internal resources generation will be Rs. 8500 crores against the previous year's Rs. 7022 crores which helps Plan objectives, and g) the profit making companies include steel, mineral and metals, transportation services and agro based sector which made loss in the previous year, while petroleum, power, telecom and heavy engineering further improved their profitability. 33 public sector units report achieving 11 per cent

higher production in May 1989 compared to May 1988 at Rs. 450.20 crores. The units which exceeded their target include Bharat Pumps, Bharat Wagons, HMT, Maruti, National Instruments, Richardson & Cruddas.

National Production Front

Steel

The government has decided to set up empowered committees of secretaries to grant single window sanction for steel modernisation projects involving a) sanctioning indigenous clearances which are to be increasingly important as SAIL has decided to use indigenous technology for updating the plants and contract for foreign knowhow only where domestic capacity is not available, b) clearing projects imports, c) releasing foreign exchange, d) decide on counter trade offers and the award of contracts. As each plant will have a committee with the above powers, the modernisation plan will be speedily and effectively implemented. As part of its liberalising policy, as mentioned earlier composite units producing hot rolled strips/sheets are allowed to set up capacities in new related areas by way of forward and backward integration. To facilitate this, broad banded licensing procedures have been introduced for manufacture of HC steel strips/sheets and cold rolled sheet strips/sheets of narrow and wider width. SAIL has finalised the take over of Visvesvaraya Iron and Steel Ltd (VISL) which was started to help the industrialisation of the Mysore state and which played a pioneering role for the state and country. But in later years, the unit has turned sick not only mainly because of lack of power but also because of the glut in the market for its type of

product — alloys and special steel and the over manning and high wage bill. Now the Union government has been assured power supply by the state government for VISL, SAIL rehabilitation plan for it, bringing the latest state of the art technology, will also help. SAIL's vast marketing network and managerial talent will now be available for VISL. Those are all good and essential, but along with them the redeployment of the overly large workforce of 9000 must be taken in hand to ensure success and not simply that of nationalising another sick industry. SAIL much to the relief of producers in the south announces the setting up of three modern stock yards in Tiruchi, Vijayawada and Vishakapatnam to widen the southern net work. It also announces the import of 2 lakh tonnes of pig iron from Brazil this year to meet current supply. The World Bank in a confidential study on India's steel industry holds up South Korea as an example to be followed in privatising the public sector steel industry and as a prelude to such privatisation recommends that the entire edifice of public sector policy pertaining to the steel industry should be dismantled, allowing for the lifting of tariff, import and price controls. The World Bank states it has not been interested in the public sector steel industry in India, has helped private sector expansion, but is now interested in the public sector as a result of its reconnaissance mission in 1985. It analyses the problem that this privatisation proposal faces, particularly the problem of the capital market absorbing \$34 billion shares along with the low profitability rates (which even TISCO faces) and suggests the way out. This advice and report of the bank does not take into account the question of national and sectoral priorities in relation

to employment generation and poverty alleviation. This proposal for privatisation of the industry and the unleashing of market forces on it has no relation to the tasks relevant on this key industry for attaining various goals and targets of national development and the five year plans. In this regard even the World Bank study speaks of "the under—— success" of the public sector steel industry but does not draw the necessary conclusions from it. The government is to blame for allowing an outside body to intrude into an area where so much of national well being is at stake.

Crude

ONGC reports that it has set itself 3 targets: 1) It will meet the annual production requirement every year from 1989-90 to 1994-95. 2) It will meet the entire domestic demand for hydrocarbons by producing with OIL India 132 million tonnes of oil and oil equivalent gas every year by 1995. 3) It will generate 40,000 MW of power from gas by 2001. In this connection it is reported that contrary to domestic and international assessments, Bombay High has a much longer life and with installations of water injection platforms, oil production from the field can continue till the early years of the next century. Because of increased consumption, the falling value of Rupee and tight international market, India's diesel imports this year will be 1 million tonnes (3.58 million tonnes at Rs. 915 crores) over last year's. The government and ONGC are working on the doubling of natural gas production during the VIII Plan. ONGC reports a major oil discovery in the Golaghat district of Assam, covering an area of 100 sq km. The government states that it has approved

an ONGC proposal for setting up a kerosene recovery unit at its gas processing complex at Hajira in Gujarat, using the large amount of natural gasoline liquid (NGL) available at the complex.

Coal

A FICCI survey on coal using industries, cement, paper, textile etc. shows that the landed cost of coal for them has increased by 40 per cent due to a) the cumulative impact of recent increases in coal prices and b) railway tariffs and upgradation of classification of certain varieties of coal for movement by rail. At the same time, the industries report the quality of coal delivered to them in terms of the heat value and grade, continues to be poor and unsatisfactory. The government reports that 44.26 million tonnes was produced in April-June 1989 compared to 44.26 million tonnes produced in April-June 1988 compared to 41.1 million tonnes in April-June 1988.

Edible oils, sugar and cement

Because of the 1988-89 bumper crop and oil seeds crop of 16 lakh tonnes, dependence on edible oil inputs was reduced from a projected 23 lakh tonnes to 8.5 lakh tonnes. (In 1987-88, 18.5 lakh tonnes were imported at a cost of Rs.1000 crores). In 1989-90 with the good monsoon, oil seeds output may be exceeded. The decision of the government to reduce the price band for mustard seed oil from the existing Rs. 20,000 to Rs. 25,000 per tonne to Rs. 17,000 to Rs. 23,000 is sad. But the edible oil situation needs to be closely watched and constantly monitored. As on June 30, the stock level of edible oil with STC

was 1.56 lakh tonnes which is not being released to keep prices from falling. But the price of groundnut oil is rising from Rs. 208 to Rs. 230 per 10 kg and with demand rising for the approaching festival season may rise further. STC is estimated to exhaust its stock of palmolein because of the rise in groundnut prices and will need 15,000—30,000 a month to meet the lifting of that oil. Hence the decision of government to import 1 lakh tonnes of edible oils is sound. This will enable a little continuity in our exports of oil seeds and solvent extractions which could be reduced if domestic prices of groundnuts is allowed to rise. With regard to sugar, as noted in the last issue, the 1988-89 production is likely to be around 88 lakh tonnes against the expected output of 102 lakh tonnes. The shortfall is due to lower recovery rate in the North and the larger diversion of cane supplies to gur and Khandasari. In May the output was only 1.42 lakh tonnes against 6.2 lakh tonnes in May 1988, in the first fortnight of June it was 22,000 tonnes against last year's 85,000 tonnes for that period. So the total output for 8 months of the 1988-89 season is only 86 lakh tonnes against 89.54 lakh tonnes in the previous season. There is need to increase production in the 1989-90 season because for 3 months ending September, the quantity available will be only 41.70 lakh tonnes against which consumption will be 29 lakh tonnes, leaving only 12 lakh tonnes as carry over for the new season starting October 1989, to which 5 lakh tonnes will be added by production in the first 2 months, October and November, while consumption will be 16 lakh tonnes. So the policy for the next season must be announced now and production must be maximised to reach 105 lakh tonnes. On the cement front, there

is an investment famine because large cement companies are reluctant to set up new capacities, as with decontrol, which they have long pleaded for, there is a problem of large surplus supply of around 4 million tonnes. The Industry's plan to set up a Cement Export Corporation with a corpus of Rs.110 crores to subsidise 4 million tonnes of export has not taken off, despite the government providing cement exports CCS in addition to duty drawback and import replenishment. The industry states that i) on every tonne exported it will lose Rs.30086, ii) sickness in the industry is serious for the 30 per cent capacity still using the wet power which needs more power and labour inputs. Immediately the industry's plea for a 25 per cent CCS should be given favourable consideration. On the industry side there should be an all out effort at modernisation and building up of an export market, to meet the revived demand for cement which the Housing industry will call for in the VIII Plan.

Cotton and textile policies

The Cotton Advisory Board at its June meeting raised its earlier cotton crop estimate for the current season (September to August) from 102 lakh bales to 104 lakh bales against last season's low 90 lakh bales, due to the good monsoon. The total supply for 1988-89 is estimated at 125 lakh bales which includes an opening carry over of 18.68 lakh bales and an estimated import of 2 lakh bales on mills account against their export of yarn and cloth. On textiles policy the Abid Hussain Committee constituted in May 1988 representing various textile interests and government ministries has had a hard time in arriving at a consensus by the various sector mills powerlooms, handlooms, cotton growers,

manmade fibres industry, cotton industry and the government textile and finance officials. The committee is required to review the progress and implementation of the textile policy and assess how the policy has affected different sectors of the textile economy, including the various measures for the protection of the handlooms sector. The committee's extended term expires on July 31.

Irrigation

The Planning Commission reports a growing gap between irrigation potential created and actual utilisation. At the end of I Plan it was 1 million hectares and at the end of VII Plan it is 9 million hectares. As a remedy, a programme of substitutional irrigation is proposed under which constructive planning of minor irrigation in the commands of major and medium schemes villages so that appropriate minor schemes could be taken up to irrigate the land under the commands of major and medium projects. Thus substitutional irrigation will provide a fully developed land ready in all aspects to receive irrigation at the outlet points of the distributive systems of major and medium irrigation schemes so that total utilisation is ensured right from the commissioning of the project.

Agricultural Production

According to the meteorological department, as of July end 30 out of 35 meteorological subdivisions have had excess or normal rainfall compared to last year's 22 covering 72 per cent of the districts compared to 68 last year. The rain deficient areas, southern Punjab, Haryana, West UP, all of which are very well irrigated areas.

Only the cost of crop production will go up because of the higher use of power and diesel for irrigation. This means that the kharif cereal production will again be a record, though these rains sparse areas may face a problem during rabi when the water level falls. Coarse cereals which faced a problem in mid June when there was a rain lull in Gujarat, Rajasthan and Orissa now faces a drastic change after the plentiful rains from July 19. Oil seeds production is likely to cross previous records, with the good sowing reports from all major oil seed growing areas. The target for 1989-90 which had been fixed at 175 million tonnes comprising 7.250 million tonnes rice, 54 million tonnes wheat, 33.75 million tonnes coarse cereals and 14.75 million tonnes pulses, was raised by the government to 185 million tonnes, in view of the 1988-89 output estimated at 172.18 million tonnes. The union reports that it has sanctioned Rs. 130.85 crores as short term kharif loan to the states. It is estimated that foodgrain production in 1988-89 is 172 million tonnes against the original estimate of 166.57 million tonnes. However developments on the price front and buffer stock operations are a problem. On the basis of purchasing affected upto mid July, the total quantity to be procured for the whole season may be 16 million tonnes in 1983-84 when the output was 152 million tonnes. Wheat procurement this season is 8.83 million tonnes against the target of 10.2 million tonnes and rice procurement 7.6 million tonnes. As on June 30 the foodgrains stock was 6 million tonnes of wheat and 3.4 million tonnes of rice — which is short of the operational stock levels plus the 10 million tonnes of buffer stock. (In Parliament government states that the total stock is 13 million tonnes as of

July 1). From the beginning of the season, prices in all producing states have been ruling high suggesting traders and millers cornering the stocks. Against the procurement price of Rs. 183 a quintal, the price in Haryana was Rs. 216, in Punjab Rs. 212, UP Rs. 240, and in Rajasthan Rs. 310. Traders moved their wheat to Bihar, Gujarat, Maharashtra, and Bengal where they are commanding still higher prices. These procurement shortfall and price rises may be the reason why imports are being planned. The agriculture ministry estimates that by the end of the VIII Plan 185 million tonnes of foodgrains will be needed and by the end of the IX Plan 220-230 million tonnes. To meet these estimates the planning commission has announced an agroclimatic regional approach, involving a more scientific utilisation of resources, the increase of output in key regions of low productivity, integrating national agro climatic plans with state level plans. Zonal planning teams have been set up for each of the 15 agro climatic regions whose plans will evolve as part of the development plans of states. But the planning commission should also recognise that the problems are not always only technical and issues like conditions of land tenure are as important for improved agriculture as irrigation and quality seeds on which a Rs. 230.6 crores national seeds project III is being launched. This is brought home by the fact that seven peasant and farm workers organisations announced in July that they would intensify the struggle for the implementation of land reforms by occupying distributable lands from July 15. They point out that over 63 million acres of land — ceiling surplus, benami, cultivated wastelands, bhoodan and forest lands — have been identified by government for distribution over the years but only 45 lakh acres have been distri-

buted so far — with only West Bengal, Kerala and Tripura seriously pursuing the programme. The improvement of agriculture and its yields is not only a technical matter, it is also a matter of political will.

Foreign Trade

The government reports that in 1988-89 exports increased by 29 per cent and imports by 23.6 per cent. The export for April-May 1989-90 was Rs. 4059.67 crores which was a 38.1 per cent growth over the 2 months of 1988-89 and imports were Rs. 5003.45 crores which was a 17 per cent growth. Hence for April-May 1989 the trade deficit was — Rs. 943.78 crores which was —29.3 per cent compared to Rs. 1334.65 crores in April-May 1988 which was —57.3 per cent. At this rate the government is of the view that the current year's deficit will be smaller than that of last year. India and Pakistan agreed in July that the private sector in Pakistan will be allowed to import 700 items from India (up from 249) but did not extend the most favoured nation treatment as India does to Pakistan. The Union government has amended the import policy for Free Trade Zones, 100 per cent export oriented zones in not applying the licensing and other requirements needed for agents. The value of overseas projects awarded to India has declined to Rs. 350 crores in 1988 from Rs. 490.5 crores in 1987 and Rs. 526 crores in 1986, though the number of projects have increased from 25 in 1986 to 30 in 1987 and 39 in 1988. The government has taken a number of decisions like the grant of project assistance to promote the export of projects and consultancy services. The government has also amended the import duty exemption scheme to extend

it to manufacturers — exporters having a domestic turnover of Rs. 15 crores during the preceding 3 licensing periods but having no or little exports. It also has added more products such as solvent C-IX and hydro cyanic acid to the petro chemical intermediaries under the 15 per cent reservation scheme for export production. It has fixed the 1989-90 textile export target at Rs 5090 crore which is a rise of 17 per cent over that of 1988-89 and jute export target at Rs. 300 crores. The Comptroller and Auditor General has reported that the internal debt went up to Rs 98,646 crores at March 31, 1988, against Rs. 86313 crores on March 31, 1987. Indian external debt increased to Rs. 23,223 crores at March 31, 1988 against Rs. 20299 crores during the previous year. The total liabilities of the government which were a little over 67 per cent of GNP recorded an increase of 130 per cent over 5 years and stood Rs. 19,5561 crores at March 31, 1988. The government admitted in Parliament on July 28 that the balance of payments position was causing concern with debt service ratio being 33.9 per cent in 1988-89 (down from 36.2 per cent in 1987-88), and foreign exchange reserves falling from SDR 4850 millions on April 1988 to SDR 3269 millions on April 1989.

Aid and loans

July recorded a number of World Bank loans to India comprising a) IDA credit of \$87.2 million and World Bank loan of \$11.3 million for family planning in AP, MP and UP. 2) a World Bank loan of \$350 million of May 1987 to be renegotiated. 3) a World Bank loan of \$100 million to IDBI for development of the electronics industry: 4) a World Bank loan of \$700 million for

the 3 power projects mentioned earlier, 5) a World Bank loan of Rs. 15 crores to AP for its agro industries, 6) an IFC loan of \$80 million for TISCO; 7) negotiation on a World Bank loan of Rs. 15 crores for capital goods imports, 8) World Bank negotiates with ICICI for a loan of \$20 million for its second venture capital fund and 9) negotiation on a Rs. 632.6 crores loan to the Tamil Nadu government for development of municipalities and MMDA. At the bilateral level, India and Hungary have agreed on a credit from Hungary of \$200 million for financing Indo-Hungarian Commercial contracts. USSR has offered a credit of Rs. 1850 crores for development of power stations and transmission lines. UK and Canada have offered a credit of \$250 million for the development of Indian Airlines (purchasing A-320 Airbus). Canada offered \$190 million for developing petroleum projects in India. During the Prime Minister's visit to France, project aid from France for nuclear power plants, a fast breeder test reactor, help to CIL and GSI were negotiated. In commercial borrowing on the international market, IDBI has been permitted to launch a Samurai Bond issue for 20 billion yen in the Japanese market. ICICI has been permitted to raise a long term multi currency loan for \$100 million. The Shipping Credit and Investment Company of India has been permitted to sign an agreement with a consortium of banks in Paris for a loan of \$50 million. SBI reports that it has been permitted to increase its commercial loan in the US domestic market from \$200 million to \$500 million and the Euro-commercial paper from \$100 million to \$200 million.

International

World Economy

There were released in July, a series of reports on the world economy by the World Bank, IMF, United Nations and UNCTAD. The most exhaustive was the World Bank's World Development Report 1989 which concentrates on the reform of the financial systems, calling for efforts by debtors and creditors to move beyond the debt crisis and the creativity of the international capital markets be brought to bear on the problems of the debtor countries. Credible and sustainable structural adjustment is necessary to bring back the flight of capital and to make sure that all resources — domestic and external — are put to productive use. Creditors should be more imaginative in their lending, tailoring the form and maturity of financial flows to the characteristics of the projects being financed. It notes that 24 developing countries have undertaken financial restructuring and such institutional financial restructuring is an opportunity for developing flexible, responsive financial systems that can address itself to the underlying causes of insolvency. The drive for macro economic stability involves reducing government spending where structural adjustment can aim at more productive use of resources involving restructuring of closing insolvent firms. It comes out with its familiar theme of giving market forces more influence over interest rates, reducing directed credit projects and reforming the legal and accounting system as prerequisites to financial reform. The first prerequisite is giving market forces more influence over interest rates where macro economic stability and a developed

financial market exists and in their absence government controlled interest rates must be flexible to consider inflation and market pressures. It says experience over 25 years shows that countries with positive real interest rates have less volatile inflation rates, deeper financial sectors, higher investment rates and more productive investment. The second prerequisite of reducing directed credit programmes is needed in a world of fast changing relative prices, complex economic structures and sophisticated financial markets. Resource allocation could improve by specifying priorities more narrowly, reducing the number of projects and emphasising credit availability rather than subsidised interest rates. The third prerequisite is reform of legal and accounting systems which is needed to support modern financial operations, changing laws which are biased toward debtors, making debt collection difficulties. The developing countries should start their financial reform by restructuring insolvent banks and firms, improve finance accounting and price distortions due to protection. On this basis a greater variety of markets can be developed, foreign entry into domestic financial markets should be encouraged to increase "competition and efficiencies" (which are the buzz words), moving on to full liberalisation of interest rates, capital controls and restriction on foreign institutions. On developing financial markets, banks need to be made more efficient, money markets should provide for bank liquidity, competition for banks and a bench mark or market based interest rates. The informal financial sector is important because it meets clients needs not served by the formal sector. It holds up the experience of the high income centres to help developing countries to move towards a more sophisticated financial system,

though the latter face a risk arising from mistakes. The report serves an important purpose in driving home the truth of the centrality of finances, financial flows and their role in resource allocation. There is however the usual over emphasis on liberalisation, competition, efficiency and market efficiency. For once, South Korea is not held up as a model because of its heavily regulated financial system. For India, the chapter on informal financial markets points to the need to hasten the matter of what the report calls financial reform and restructuring slowly. The United Nations World Economic Survey 1989 states that a slow down is possible in 1989-90 after the unexpected high growth in world output — characterised by decline in Latin America, stagnation in Africa, a strong expansion in Asia. The debt crisis in developing countries continues unabated and economic reforms in centrally planned economies have produced mixed results. World output grew by 3.3 per cent in 1986 and 1987 and by 4.3 per cent in 1988. It will moderate in 1989-90. UNCTAD's expert group calls attention to the reverse flow of funds suffered by developing countries in the last five years and to counter it, recommends sizable increase in ODA to start and support self sustaining economic growth in developing countries. It also says that the US can play a key role in solving the \$ 1.2 trillion third world debt problem by reducing its massive fiscal and current account deficits. For Africa it recommends that industrialised countries contribute \$ 1 billion to the African Development Bank as an endowment to be administered by it for Africa's development. The IMF world-economic report deals with the very high 3rd world trade gap at \$ 24.8 billion in 1988 compared to their surplus of \$ 10.4 billion in 1987. In this

it points out the export growth from Asia accounted for more than 60 per cent of the growth in total trade, and so their 1987 \$10.7 billion surplus turned to a \$ 3.4 billion deficit in 1988. Latin America, however increased its trade surplus from \$ 3.3 billion to \$ 12.2 billion.

World Trade

The next round of the Uruguay talks will make major progress in North-South trade issues. In the seven rounds of trade talks under GATT all these years, only limited progress in trade liberalisation between industrial and third world countries was made and the latter group did not share in the benefits. It is expected that the Uruguayan round of GATT will deliver the third world trading system benefits at a reasonable cost. The 13 nation European commission has stated that it is prepared to dismantle the multifibre arrangement provided GATT rules and disciplines are strengthened to provide the countries with what they regard as equal competitive conditions for their exports to those countries. This parallelism is worrying the textile exporting countries. This is far away from the position of the textile exporting countries which want to see the MFA integrated into GATT and cease to be a separate arrangement.

G-7

The G-7 (UK, Canada, France, West Germany, Italy, Japan and UK) met in Paris in mid July and called development "a shared global challenge" and pledged to help developing countries by opening the world trading system and supporting their structural adjustment. They urged the developing countries to implement

"sound economic policies", the commercial banks to adopt "realistic and constructive approaches in negotiations with debtor countries" and endorsed the Brady Plan (see Vol XIX p 234). A week later, Mexico was able to negotiate with foreign private banks which cut its dues to them which totalled \$ 54 billion by \$ 10 to 12 billion at the end of 1992. This proposal to reduce the debts by 35 per cent in face value is hailed as a first victory for the Brady Plan.

India — Pakistan agreement

In July India and Pakistan negotiated an agreement to ease travel restrictions by doubling from 4 to 8 the number of places that could be visited by nationals of either country and increase the number of pilgrims and place of pilgrimages. Both countries are to increase co-operation in the field of trade as already reported under the foreign trade sector, in culture, planning, industry and agriculture.

II. Agricultural Development in Tamil Nadu

Paddy and other crops

The farmers in the cauvery delta in Thanjavur district are by and large forced to skip the kuruvai crop for the fourth year in succession because of the low level of Mettur which was 11.9 tmcft upto the third week of July (against the capacity of 93 tmcft). Only the few farmers who have borewells or filter points in the delta have raised paddy nurseries for transplantation over 30,000 acres, and are growing kuruvai paddy. The water which came to Mettur from the last week of July referred to earlier was too late for the kuruvai and the farmers want to use it for assuring a good samba crop. The current kuruvai covers some 1 lakh acres against the normal 4.25 lakh acres. Farmers plan to cultivate the balance of 3.25 lakh acres as a single paddy crop along with the usual 7.5 lakh acres for samba. There is a further problem facing the delta farmers and that is that the water table in the district has fallen so low that

many of the farmers having filter points pumpsets have not been able to raise paddy. The good rains in 17 of the 20 districts has resulted in the farmers growing more than the normal coarse cereals and cotton and groundnuts which are all doing very well. With the improved storage in the reservoirs referred to earlier, farmers are at work raising a variety of crops including pulses. As noted earlier with good inflows of growing storages in Periyar and Vaigai reservoirs, Amaravati and Bhavanisagar reservoirs and the Parambikulam — Aliyar system, farmers are hard at work on their irrigated farms and are following government advice to raise short term crops and use the water economically. Also a series of irrigation seminars have been held at Thanjavur, Periyar, Coimbatore, Tirunelveli, Kattaboman districts and will be held in Kathayar, — Pachiparai in Kanyakumari district and Salem at which farmers learned about water use and the latest technology from experts and officials.

Research results

Research results in July covers reports from the University of agricultural sciences, Bangalore on the development of high yielding new pulses — ICPL 270, ICPL 87 and TAP-7, from rice research station Hyderabad on use of engineering combining management and inputs to obtain high rice yields, on setting sex traps for sweet potato weevils, and on improved ratooning in sorghum, from the UAS Bangalore on means of combating the serious threat to subabul, from the SV university, Tirupati on means of lowering cyanic content in cassav, CTCR, Trivandrum's work on high yielding colocasia, from TNAU on countering the mealy bug menace in grape vine gardens, from CIAE Bhopal on combating stem infesting pests of Pungar, from college of fisheries, Mangalore on a new promising variety of jack fruit, from horticultural station, Jodhpur on growing improved varieties of pomegranates, from UAS Dharwad on means of countering powdery mildew disease in brinjal, from CPCRI, Kasargod on combating the destructive pest of arecanut, from TNAU on using improved varieties of sesamum — TMV-3, TMV-4, TMV-5 and TMV-6, from college of Horticulture, Trichur on a new high yielding pumpkin CM-14 that has been developed, from Kerala agricultural university on developing integrated farming involving rearing of small livestock and farm yard animals like ducks and pigs with fish, from the Horticultural station, Perumbarai on means of countering bunchy top virus of hill banana, from the Department of Zoology laboratory, Warangal on stimulants which have been identified by it for silk worms, from the Indian Institute of Sugarcane Research, Lucknow on the technology it has developed for sugarcane growing in rainfed agriculture, from the college of Veterinary

sciences, Tirupati on means of preventing the dreaded Ranikhet disease in poultry, from URDC, Erode on managing exotic and cross bred cattle, from the veterinary college Madras on countering the killer disease, tropical Theileriosis in cattle, and from TNAU on a waste fuelled copra dryer that it has developed.

Monopoly Procurement and farm credit

Farmers in Thanjavur district have welcomed the announcement of the government that the monopoly procurement of paddy will be forthwith abolished. They feel that this would enable them to get the full benefit of the rising market price for paddy. Further on the one hand the State government announced to the farmers that it will extend subsidy for farm inputs including seeds, pesticides and gypsum to Rs. 8.20 crores (against last year's Rs. 3 crores) under the special rice production programme in order to bring down their cost of production. Even in areas not covered by the programme, farmers are to get a 50 per cent subsidy on their inputs, costing the government Rs. 23 crores. On the other hand, the entire agricultural cooperative credit structure in the state is now facing a crisis because of NABARD's decision to stop refinance facilities to the tune of Rs. 300 crores to Tamil Nadu, because it feels that the government concessions and subsidies of Rs. 100 crores given to farmers will weaken the cooperative movement. This matter is now under negotiation between the bank and the government.

Tea

Tea production in 1986 is likely to be the same as in 1988 at 700 million

kg, and the export target for the year has been fixed at 225 million kgs. There are two developments in the tea scenario which need comment. The first is the sharp fall in the production of tea in south India. During January-May 1989 production fell by 30 per cent over that period in 1988 from 76 million kg to 53 million kg, while auction offerings have increased. This has been the tradition in the south, may be because of the lesser initiative of tea producers to market their products or may be because brokers are competing to finance the producers and win them over. This brings up the second problem which is the sharp rise in the domestic price of tea — rising to Rs. 28 per kg which is the highest in the last 3 years — which makes this common man's beverage costly for him and threatens the exports volume because the domestic prices are attractive. The main cause for this rise is the product shortfall in the south. The government called a meeting in late June of tea producers, traders, the tea board and state governments to deal with this problem. Nothing important emerged from the meeting except it was clear that the only way to bring down tea prices is to increase tea production which has to meet the 1995 target of 876 million kg against the 701 million kg in 1988. Since land ceilings rule out area expansion, this production expansion can come only from higher yields. And for this tea prices must be at a level which will justify replanting with higher yield varieties and also possible replacement of paddy by tea. So the need of the hour is for all — producers, traders, tea board and state governments to do everything to increase production. Prices should not be brought down by reducing exports and so increasing

domestic supply. That would be short sighted in relation to the country's need for foreign exchange resources.

Coffee

During 1988-89 coffee production will be 2.16 lakh tonnes, which with the carryover stocks of 35,000 tonnes, gives a total availability of 2.51 lakh tonnes. Of this 60,000 tonnes could be used to meet domestic demand leaving 1.91 lakh tonnes for exports. On July 4, the International Coffee Organisation reported that the International Coffee agreement negotiations have broken down and that international coffee quotas were suspended. The Indian reaction to this is mixed. The coffee Board chairman welcomes this because he feels that India can now export more than 52,000 tonnes allocated to it. There are others who feel that India will lose in a free for all competition with major producers like Brazil, Colombia, Guatemala and that even India's traditional non quota major exporter USSR is being poached upon by Brazil which sold last year soluble coffee worth \$43 million in exchange for Russian Vodka. The government seems to belong to the first group and has fixed the 1989-90 target at 1.6 lakh tonnes which will earn Rs. 500 crores compared to the 1987-88 export of 97,000 tonnes for Rs. 339 crores. The first effect of the collapse of the International Coffee Agreement in early June was a steep fall in coffee prices from 1,129 a tonne to 810. But by mid July, coffee prices began to recover to 820 a tonne and the rise is continuing. For 1989-90, 59,000 tonnes have been contracted for export to the ex non quota countries, leaving a surplus of 1.41 lakh tonnes. The Coffee Board states that it has already sold 60,000 tonnes. The problem in the domestic market is

not only the stagnancy of the domestic coffee demand, but domestic coffee prices are about half that of international prices. So it is only at the end of the

financial year that we will know how successful the coffee board has been in increasing the country's coffee exports.

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III. Industrial Development in Tamil Nadu

Industrialisation in the State

The state government has notified the 105 backward taluks in the state where industrial units will get state subsidy as well as other incentives. This was necessary in view of the uncertainty over the continuation of the union subsidy. Units set up in these taluks will receive a capital subsidy of 10 per cent subject to a ceiling of Rs. 15 lakhs. Pioneering industries with an investment of Rs. 5 to Rs. 25 crores in these taluks will receive a special state subsidy of Rs. 25 lakhs. It has also announced a subsidy of 15 per cent subject to a ceiling of Rs. 5 lakhs on the purchase of captive generator sets. Also improved interest free sales tax loans are offered to them. These are being put into effect on the basis of the recommendations of the long term strategic planning committee and in replacement of the union subsidy for 42 taluks which expired on September 30, 1988. The Confederation of Engineering Industries welcoming these quick decisions recommends that the state should go in for an aggressive marketing campaign to take advantage of its good industrial climate and labour relation to attract large investments from other states. Particularly in the engineering industries in the state there is a boom, with expanding export orders

from US, EEC and Japan. This sector can be expanded with an infusion of capital from other states. The coming year, however, is a difficult one for the state's development in view of resource crunch faced by the government.

Neyveli, MRL & ONGC

On the basis of its remarkable record of power generation, its good plant load factor and its profitability (for 1988-89 it registered a profit of Rs. 78 crores), Neyveli Lignite Corporation is in for spectacular expansion. The union government is releasing the funds it needs, foreign countries are vying with each other in offering it soft loans, and the investing public has made clear its confidence in it by subscribing to its bonds. Neyveli's generating capacity is to be increased from 1230 MW to 4200MW with an additional investment of Rs. 4000 crores. It has acquired national status by extending its activities to Gujarat, Rajasthan and J&K. The recent discoveries of huge lignite reserves in Tiruchirapalli district, Pondicherry and Kerala open up vistas of rapid growth and supports the view that lignite (NLC) is the answer to the chronic power shortage in the south. Given these stakes, the recent technical hitches

in its functioning and labour unrest should be attended to and averted for the future. MRL reports that it has submitted to the Union government the techno economic feasibility report on the proposed crude distillation plant in the cauvery basin. This plant is to come up near Nagapattinam at an estimated cost of Rs. 95 crores by 1992. ONGC also reports examining the possibility of setting up a plant to produce LPG in the cauvery basin, using the gas from the onshore fields at Narimanam and Kovilkalappal in Thanjavur district as well as the offshore finds there. ONGC also states that it is preparing a plan to establish a gas grid along the Tamil Nadu coast from Nagapattinam to Cuddalore which will link both onshore and offshore gas strikes. MRL reports that due to a power failure and leakage, a fire broke out in its expansion units which was extinguished within an hour. The units have been restarted after some repair.

BHEL & TN Spirit Corporation

BHEL as noted earlier (see Vol. XVII p. 178 & XIX p. 63) faced with a poor order book position. This affects not only BHEL but also the 200 ancillary units dependent on it. The units are specialist fabricators trained by BHEL to make all the high quality and precise component required by thermal power plants. With BHEL facing a dearth of orders, the ancillary units are faced with the possibility of closure. The BHEL Small Scale Industries Development and Service Society (BIDASS) representing 200 ancillary units has pointed to the large scale waste of equipment and unemployment that the present situation involves. Now the government must ensure that the massive VIII Plan power projects place part of their equipment

orders with BHEL. That is the way forward. As noted in the last issue, the State government has set up the Tamil Nadu Spirit Corporation in the joint sector to produce IMFS and beer, which will obviate the grant of licenses to the private sector to produce them. The initial subscribed capital will be Rs. 1 crore (Rs. 60 lakh from TASMAR, Rs. 20 lakhs from TIDCO and Rs. 20 lakhs from the state government).

SPIC, textiles and SITRA

SPIC reports that it is entering the shipping area and has acquired a 22,500 cubic metres LPG carrier to ferry imported raw materials needed by the company's various projects and units. The ship costs SPIC Rs. 75 crores and is built by South Korea. On the textiles front, the National Power Loom Weavers Action Committee observed a bandh in July to press its demand to bring down the prices of cotton yarn and all varieties of yarn which were in short supply. The government announced at the end of June and reiterated it in Madras in early July that Rs. 80 crores are allocated for the supply of 1 lakh bales of hank yarn for supply to weavers at reasonable prices. SITRA proposes the closure of all non viable mills, and that mills making low profits must plan for rationalisation of labour, take up modernisation and maintain spinning labour production to attain SITRA norms. These are the recommendations of its study on the factors that have led to sickness in the textile mills. These recommendations are clear and must be acted by the industry and the government. SITRA has been asked by the union textile ministry to undertake 3 studies a) on long term viability of the organised textile industry, b) on forecasting fibre requirements in the VIII

Plan and c) jointly with BTRA and NITRA to study manpower planning needs in 2000 AD. The first study has resulted in the recommendation to close unviable mills and support the viability of others in the long run. The second study shows that cotton requirements will increase by 20 per cent to 104 lakh bales in 1990, to 45 per cent to 126 lakh bales in 1995 and 50 per cent to 152 lakh bales in 2000. The consumption of man made fibres will increase one third in 1990, double in 1995 and go up 2.5 times in 2000. The third study shows that 25 per cent of labour now employed by the mills is surplus and that 50 per cent of the composite mills will not be able to survive in 2000. Consequently their share will shrink to 10 per cent, employment in the textile sector will be 5 million, more than half in handloom, 25 per cent in power looms, 10 per cent in the organised sector. The study points out that the current output of textile technologists is about 3000 a year and this is much higher than what will be required in 2000.

Leather

The number of leather garments manufacturing units has risen from 22 in 1982 to 125 in 1988-89 with production capacity at 18 lakh pieces, with Madras at 35,000, Bangalore 30,000, Delhi 30,000, Bombay 25,000, Pune and Hyderabad 15,000, Dewas and Kanpur 10,000 each. The expansion in the production of this sector is due to the widening of its production base and phenomenal rise in exports in the 1st 4 years. These units spread all over the country as the above data show, are mainly in the small scale sector and are by and large mechanised and totally export oriented. Exports in this sector have grown sharply in the first 4 years of the VII Plan exceeding the target of Rs. 39 crores and 7.20 lakh pieces. Exports of leather garments rose from Rs. 9.46 crores in 1985-86 to Rs. 62.26 crores in 1986-87 to Rs. 105.72 crores in 1987-88 and Rs. 166.15 crores in 88-89. For the current year they are expected to touch Rs. 200 crores.

IV. Education, Science and Health

Educational reforms

The new text books on the reformed curriculum for classes 1 to X are being delayed in printing due to the 60 per cent power cut till June 30. The 225 printing presses in Madras and Sivakasi which have to print the 620 lakh textbooks are therefore behind time. As a result, even 1 month after schools have reopened, the textbooks supply is limited and there is a scramble for them. This may be a good occasion to use other

methods of learning (and teaching) beside the book. At the University level the Indira Gandhi Open University and the Open Universities of Rajasthan, AP, Bihar, and Maharashtra have set up an accreditation council to maintain quality in course material — print, audio and video. They are evolving a common net work to help exchange of materials and students. UGC has been trying for many years to ensure minimum work turn out by universities and colleges. It is having great difficulty in getting 180 working

days accepted and enforced as that being minimum, because of the politicisation of the campuses, with their accompaniment of strikes, bandhs and dharnas, leading to long periods of closures. 180 working days is a minimum in the sense that even so there is a lot of idle capacity in the system. The UGC is not able to oversee this norm over the 6000 colleges, of which 2000 are ill equipped. UGC has recognised only 3700 colleges and their 150 affiliating universities. The problem is to restore the work culture of the universities and for this each state should pass the necessary legislation making the number of working days mandatory. Another issue to which attention was called earlier (See Vol XII p80) is the poor performance of students at the BA, BSc, level. Madras University reports that only 38.3 per cent have received a pass at BA, while 34 per cent was successful at the BSc level. In BCom 48.3 per cent were successful. Here both the system of learning and evaluation need restructuring because these poor percentages are symptoms of poor learning systems and wrong evaluation procedures.

Technical education

Following the Kulandaiswamy report on the self financing engineering colleges, the Madras University syndicate has decided to stop admissions to the first year in 3 engineering colleges which are found to be seriously lacking in infrastructure. It has issued show cause notices to them to show cause why their provisional affiliation should not be revoked. Another issue is over-specialisation at the under graduate level which is unrelated to the employment market. 30 students have graduated from the state's engineering colleges in Transportation engineering for whom

no jobs are available, hence it is proposed to change the course to Transportation and civil engineering. Whether this will solve the problem of the market demanding or not demanding their skills remains to be seen. Another aspect of technical education is that over 65 per cent of engineering graduates and diploma holders come from institutions yet to be approved by the All India Council of Technical Education. This is a form of cheating and deception of the students. On the positive side, the government reports that 25 per cent of student in +2 opt for vocational studies — which is the highest in the country. In this connection the State government should permit schools which want to offer the vocational stream alone to do so, provided such courses have a proper balance of academic, general studies. A workshop on medical curriculum has recommended that the MBBS course in the state (under MGR Medical University) should include family welfare and an insight into the national health policies and become a part of the undergraduate curriculum. For this it is recommended that the faculty should be periodically updated in national policies and programmes.

Science

The apex body of the national super conductivity programme decided in July to establish a national Institute for super conductivity in the VIII Plan and approved an outlay of Rs. 15 crores for 1989-90 and Rs. 70 crores in the VIII Plan for research and applications of super conductivity. The ocean engineering centre of IIT, Madras has gained international recognition with orders it has received from UNIDO, European and Asian countries for organising training courses, joint research projects and

consultancy services. When its Rs. 3 crores wave basin is commissioned, it will become one of most sophisticated ocean technology teaching and research centres in the world. The Tamil Nadu Arasu Medical Science and Research Institute was inaugurated in July in MGR medical university campus, using its medical college and hospital facilities. The Regional institute of Ophthalmology has had sophisticated equipment including a laser, perimeter, pulsar tonometer etc commissioned in July. The conference on environment in Washington has drawn up a 15 year programme to promote development and environmental protection which is of special interest to this country. The plans deals with controlling green house cases, reduction of consumption of CFC and reforestation.

V. Employment and Labour Relations

The Comptroller and Auditor General (CAG) on the basis of the survey and evaluation in 8 states reports that Rs. 48.16 crores meant for providing self employment to educated youth have been unutilised or diverted for other purposes. Banks have drawn an excess of Rs. 5.57 crores from RBI for subsidy of loans under the scheme which was not disbursed to the targeted beneficiaries. Future reports should also indicate how these distortions and diversions can be avoided. Apart from the NREP and RLEGP rescheduling 55 per cent of 1 lakh villages over the past 8 years, the RBI reports that in 1987-88 Rs. 208 crores were provided

Health

ICMR's first report on 34 primary health centres in 14 states calls attention to most of them being deficient in manpower, in minor operation theatre and labour room. It found cold chain facilities, transport, water and power supply satisfactory. The supply of medicines, vaccines and contraceptives were reported as adequate. Another ICMR study by the Gandhigram Institute of Rural health and Family Welfare of the Sanaspathi block in the state recommends the revival of the diaphragm method of contraception in rural areas. It reports that 75.5 per cent women under the study opted for it and only 15 per cent dropped out as they desire to have another child. The continuation rate was 82.8 per cent and 52.4 per cent at the sixth and twelfth months, with no adverse complications reported.

to 1 lakh beneficiaries with no monitoring of how these funds were used. This encouraged both corruption and leakages. As noted earlier, the state government reports that 30,000 engineers and 60,000 diploma holders are facing unemployment calling for closer inter-action between academicians and industrialists. The state government stated that Rs. 133 crores is to be spent this year under the Jawahar Rozgar Yojana to generate employment for 641 lakh mandays and create assets in rural areas. As of July end Rs. 96.86 crores in cash and 24,044 tonnes of wheat and rice have been released by the Union government under this scheme.

The state government has created a central unit in the Personnel and Administrative Reforms department to undertake manpower planning to conserve financial and human resources and ensure optimum utilisation through increased productivity. This manpower cell can help in relieving the problem of educated unemployment in the state.

The minimum wages for all categories of handloom weavers in the state have been increased by 50 per cent from June 23. Under a tripartite agreement the minimum wages of steel workers has been raised to double the present level. It covers 2.6 lakh steel workers and goes into effect from 1 January 1989.

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VI. Other Items

State Planning Commission

A meeting of the Planning Commission was held in early July to review and approve the Approach Paper to the VII Plan. The President made a few comments, commending the paper, there were a few suggestions for elaboration and change in light of which the paper is to be revised and presented to government for approval. On this basis the commission set up 18 task forces. The task force on education, culture and sports met on July 25 established 8 working groups and agreed upon the format of the report to be submitted to the commission by 31 August.

India International Centre

There were 4 events in July in the centre. There was a meeting of the Board of Trustees at which the silver jubilee project was reviewed and the director's contract decided. There was a meeting of the standing finance committee which reviewed the agreement on wages and salaries in the union and approved it. It also reviewed the publication programme and found

that, taking 1988, the latest year when sales are still on, out of a Rs. 3 lakh seminar programme, the publication cost a net of Rs. 30,000 from out of the seminar funds. There was the final meeting of the panel on Eighth Plan perspectives dealing with unemployment, inequality and poverty — which all other plan activities have to address and on which the situation is very bad. There was an all day seminar on zonal planning on water, power, industry and fiscal policy in the south prepared by the 4 research institutes of the south, MIDS, Madras, CDS, Trivandrum, ISEC, Bangalore & CESS, Hyderabad which arrived at the conclusion that there can be zonal cooperation in power and water, which needs to be pursued.

SRC & TNBCE

The governing body of the State Resource Centre met in early July. It said farewell to the Director and welcomed the new director. It reviewed the restructured programme of Mass functional literacy and the publications needed for it. The executive committee

of the Tamil Nadu Board of Continuing Education also met and reviewed the activities and programmes of its members. It approved the plans being made for the next Annual conference in October in Madurai.

RBI and Reader's Digest

RBI's Board of Governors met in Madras in July. It reviewed and approved the Bank's annual report on the economy for 1988-89. It was also an occasion when the Governor and the Board members met the leading industrialists in the state. The meeting of the Board of Directors of Reader's Digest to be followed by the Annual General meeting scheduled for 24 July could not be held because the headquarters of the Digest could not be reached due to the tempestuous storms sweeping Bombay on that day and the following day.

It was decided to postpone the meeting to July 31.

Agricultural Workshop paper

As the monthly seminars have been replaced by periodical workshops, the article of the Development seminar series is being replaced by papers submitted to the workshop. The first article in this issue is the paper by Dr. V Rajagopalan, together with the Summary of Discussion on the paper, Agricultural Development in Tamil Nadu — Some Perspectives — for the workshop on critical issues in Tamil Nadu agriculture.

Second Article

A note on the Future of Village Industries - Part II appears as the second article.

MIDS News

A meeting of the Institute's Academic Council was held at 10.30 a.m. on 23rd August. The second in the series of workshops on Tamilnadu Economy as part of the Monthly seminar series dealing with agriculture was held on the afternoon of the 25th August.

Dr. A. Vaidyanathan attended a seminar on 'Recent Development in China' organised with auspices of the Indian Council of Social Science Research, New Delhi held on 29th and 30th August.

Dr. P. Radhakrishnan participated in a National Workshop on Agrarian Tensions,

Peasant Struggles and Peasant Movements on 4th and 5th September and presented a paper on "Peasant Struggles in Malabar: An Overview". The workshop was sponsored by the UGC organised by the Dept. of Sociology, Kerala University.

Dr. Paul P. Appasamy and Dr. S. Sivarajasingham participated in a training programme on "Integrated watershed Management" for government staff and representatives of Voluntary agencies, organised by the C.P.R. Environmental Education Centre, Madras.

TABLE 1

Ranks of States as per select Indicators

Sl.No States	A	B	C	D	E	F	G	H	I	J	Overall scores	Ranks
1. Uttar Pradesh	3	9	12	11	4	11	11	14	3	3	81	5
2. Bihar	2	11	9	12	2	7	6	12	1	1	63	11
3. Andhra Pradesh	7	6	8	4	6	12	9	7	9	7	75	7
4. Tamil Nadu	4	8	11	9	13	13	10	8	7	4	87	3
5. Maharashtra	9	12	2	3	14	5	7	5	12	8	77	6
6. Madhya Pradesh	10	4	4	6	5	3	4	10	2	2	51	13
7. Rajasthan	14	7	7	5	1	2	12	9	6	9	72	9
8. Karanataka	8	10	3	2	9	12	4	6	8	7	62	10
9. Gujarat	11	5	5	1	12	8	8	11	11	10	83	4
10. Assam	5	3	1	7	8	1	1	2	4	11	43	14
11. Jammu&Kashmir	1	1	10	10	3	6	3	1	5	12	52	12
12. Punjab	13	13	14	15	10	14	13	4	14	14	124	1
13. Haryana	12	14	13	13	7	10	14	12	13	13	121	2
14. Himachal Pradesh	6	2	6	14	11	4	2	3	10	15	73	8

Source : 1. Indian Agriculture in Brief, 21th Edition
2. Agricultural Census

NB : A per capita land available
B Share of Operational Holdings
C Net sown Area Irrigated (% share)
D Cropping intensity
E Literacy Ratio
F Fertilizer Consumption per Capita
G % Share of Agriculture in Total Electricity Consumption
H Pumpsets Utilization (%)
I Per capita SDP
J Poverty ratio

R. N. Poduval in his excellent book, Foodgrain Economy of Tamil Nadu: Problems and Prospects'. Also a paper by present author, Perspectives of Agricultural Development in Tamil Nadu' in the 40th Independence and Nehru's Birth Centenary Seminar on Perspectives of Agricultural Development in Tamil-

Nadu" (mimeographed). Tamil Nadu Agricultural University, Coimbatore provides a perspective of agriculture in Tamil Nadu and identifies the developmental issues. Most of data support and ideas are derived from the two publications and in what follows attempts will be made to concretize certain ideas

August Development Seminar

Agricultural Development in Tamil Nadu - Some Perspectives

Dr. V. Rajagopalan
Former Vice Chancellor, TNAU

The Setting

Tamil Nadu depends on monsoon rains which are low-to-moderate in quantum and with wide variations. With such scarce resources and seasonal limitations, farmers in Tamil Nadu could make significant progress speaks lot about their capacity to optimize resource use. In the Table 1, a set of indicators such as per capita availability of lands, per cent of operational area, per cent of net sown area irrigated, cropping intensity, literacy, fertilizer use, share of electricity consumption in agriculture, per cent of utilization of pumpset potential, per capita state income and incidence of poverty has been used to rank the states in terms of their performance. The rank scores are summed horizontally and aggregate totals are used to assign overall rank.

One would wish to use some sort of weighting depending upon the quantitative significance of each indicator but this is not done presently. Nevertheless, the evidence is very clear and Tamil Nadu stands third in rank, next only to Punjab and Haryana endowed with rich endowment particularly of perennial supply of water for irrigation. That is satisfying though, challenges of agricultural development in Tamil Nadu should be squarely met.

The problems and issues of agricultural development are ably analysed and summarized in the book 'Tamil Nadu Economy: Performance and Issues' by the Madras Institute of Development Studies. Food-grain production aspects are reviewed and policy options are discussed in depth by

and proposals. To start with the following premises may be considered.

2. Issues

- Land for agricultural purposes is extremely limited and can be increased to a small extent through reclamation of degraded wastelands.
- Irrigation and improved technologies such as HYV and fertilizer increase, land productivity, involving factor substitution.
- Water for irrigation is crucial factor and limited in its supply. Irrigation efficiency in terms of high duty of water can be achieved by reducing conveyance losses and rationalizing quantum use and water scheduling crop productivity is low for all crops and it should be improved by preventing losses due to pests and diseases and increasing yields through intensive inputs use.
- Crop substitution and diversification improve crop systems and generate income and employment, besides managing risks effectively.
- Resource poor farmers are left out and denied of privilege for utilizing high cost and cash oriented technologies and therefore, their access to productive assets should be improved and technology with larger non-cash inputs must be developed.
- With the resource-technology nexus developing in agriculture, one would insist that organization and management aspects of development must be given greater importance than ever before. These inputs are critical for widespread participation by small farmers.

- Farming system, inputs delivery network and joint decisions on production scheduling, financial managements are some of the organizational innovations and management modes.

Many of the issues and problems related to the above observations will be examined for formulating strategies for development during the next decade.

3. Development Scenarios

An attempt has been made to analyse agricultural performance during the past 35 years in order to discern certain basic trends based on which future programmes would be designed. Three time segments are specified: 1990, 1995 and 2000. Population is assumed to grow at an annual rate of 1.60%, 1.55% and 1.50% for a block of five years ending on the three periods above. For working out food needs vegetarian and non-vegetarian composition of 28.72 is assumed. Two levels of requirements, one on the basis of ICMR recommendations of nutrient needs (A) and an another heuristically modified version (B) are estimated. On the supply side two levels, one the existing proportion of area with improved (potential) productivity (C); and another with modified area and improved productivity are specified and estimated. The estimates are presented in Tables 2 & 3, followed by Table 4 showing the rates of growths to be targeted and Table 5, indicating requirements of major inputs to achieve the targeted rates of growth in output. One would like to refine the estimates with additional information and higher sophistication but the current estimates seem to reflect the situation fairly and satisfactorily. The resource use problems are discussed below.

TABLE 2

Estimated Demand for Major Agricultural Commodities in Tamil Nadu for the Years 1990, 1995 and 2000

Sl. No.	Products	Per capita / year		Estimated	Demand (Option A) (lakh tonnes)		Estimated	Demand (Option B) (lakh tonnes)	
		Option 3	Option 4		1990	1995		2000	1990
1	2	3	4	5	6	7	8	9	10
1.	Rice	108.05	108.05	66.85	74.47	80.23	66.85	74.47	80.23
2.	Jowar	10.80	10.80	6.68	7.45	8.02	6.68	7.45	8.02
3.	Bajra	5.75	6.75	4.18	4.65	5.02	4.18	4.65	5.02
4.	Maize	1.35	1.35	0.84	0.93	1.00	0.84	0.93	1.00
5.	Ragi	5.40	5.40	3.34	3.72	4.01	3.34	3.72	4.01
6.	Other cereals	2.70	2.70	1.67	1.86	2.01	1.67	1.86	2.01
7.	Total cereals	135.05	135.05	83.56	93.09	100.29	83.56	93.09	100.29
8.	Pulses	25.20	25.20	15.58	17.36	18.70	15.58	17.36	18.70
9.	Vegetables	84.68	45.00	46.57	51.90	55.90	24.65	27.48	29.59
10.	Fruits	13.50	8.00	7.43	8.27	8.91	4.40	4.90	5.28
11.	Sugar	14.60	10.00	8.03	8.95	9.64	5.50	6.13	6.60
12.	Oils	13.87	10.00	7.63	8.50	9.16	5.50	6.13	6.60

Source : 1. ICMR Diet Atlas of India, 1971, New Delhi for items 1 to 14.

2. Bensil P.C. Agricultural Planning for 700 millions for egg.

Note : i) Estimated of population were : 4.12 million in 1971 and it was projected to 48.41 56.74, 61.27 and 66.00 millions for 1981, 1990, 1995, and 2000 respectively.

ii) Additional provision of 12.5 per cent has been made for seed, feed and wastages while projecting the demand.

TABLE 3

Estimated Supply of Major Agricultural Commodities in Tamil Nadu for the years 1990, 1995 and 2000

Sl. Crop No.	Area (in lakh ha) Yield (t/ha) Production (lakh tonnes) possible											
	Existing						Potential Situation C*					
	Allocated/proposed						Situation D**					
	1990	1995	2000	1990	1995	2000	1990	1995	2000	1990	1995	2000
1 2	3	4	5	6	7	8	9	10	11	12		
1. Rice	24.70	27.50	2.010	3.500	61.915	74.185	86.450	68.933	82.592	96.250		
2. Jowar	7.17	8.42	0.930	1.083	7.034	7.399	7.765	8.260	8.689	9.119		
3. Bajra	3.60	4.56	1.160	1.426	4.495	4.814	5.134	5.694	6.098	6.503		
4. Ragi	2.30	2.30	1.450	2.052	3.797	4.258	4.720	3.797	4.258	4.720		
5. Maize	0.19	2.50	1.070	4.200	0.402	0.600	0.798	5.283	7.892	10.500		
6. Other Cereals	3.41	1.20	0.490	0.605	1.802	1.932	2.063	0.634	0.680	0.726		
7. Pulses	5.75	6.20	0.384	0.513	2.455	2.703	2.950	2.647	2.914	3.181		
8. Oilseeds	11.59	12.40	0.660	0.750	7.997	8.345	8.693	8.556	8.928	9.300		
9. Fruits	1.57	1.57	4.740	7.500	8.886	10.331	11.775	8.886	10.331	11.775		
10. Vegetables	1.11	1.10	10.000	12.500	12.025	12.950	13.875	11.917	12.833	13.750		
11. Sugarcane	1.72	2.97	9.000	11.500	16.913	18.337	19.780	20.355	22.080	23.805		
12. Total	63.11	69.82	—	—	127.721	145.862	164.003	144.962	167.295	189.629		

Note: *Option A = Existing Area X Potential yield

**Option E = Proposed area X Potential yield

TABLE 4

Required Growth Rates in Output of Major Crops

Sl. No.	Crops	Revised Potential	Existing supply	% Addition required	Annual Growth Rate (%)
1	2	3	4	5	6
1.	Rice	86.45	49.65	74.12	3.77
2.	Jowar	7.77	6.67	16.49	1.02
3.	Bajra	5.13	4.18	22.73	1.37
4.	Maize	0.80	0.20	30.00	9.68
5.	Ragi	4.72	3.34	41.32	2.33
6.	Other Cereals	2.06	1.67	23.35	1.41
7.	Total Cereals	106.93	65.71	62.73	3.30
8.	Pulses	2.95	2.21	33.48	1.94
9.	Vegetables	13.88	11.10	25.05	1.50
10.	Fruits	11.78	7.44	58.33	3.11
11.	Sugar	19.78	15.48	27.78	1.65
12.	Oil	8.69	7.65	13.59	0.85

Note: % addition = $\frac{\text{Revised Potential} - \text{Existing}}{\text{Existing}} \times 100$

TABLE 5

Estimates of Inputs Requirements for Agricultural Production, 2000 AD								
S. No.	Crop	Area (lakh ha)	Water (in 'ooo ha. meters)	Requi rement of labour ('ooo man years)	Cash (Rs. in cro- res)	N (lakh ton- nes)	P ₂ O ₅ (lakh ton- nes)	K ₂ O (lakh ton- nes)
1	2	3	4	5	6	7	8	9
1.	Paddy	27.50	34,375	13,108	10,689	25.7	12.8	12.8
2.	Jowar	8.42	4,210	1,263	1,065	7.6	1.9	1.9
3.	Bajra	4.56	2,280	638	668	2.3	0.8	0.8
4.	Maize	2.50	1,313	1,000	458	3.4	1.6	1.1
5.	Ragi	2.30	920	483	469	1.4	0.7	0.7
6.	Other Millets	1.20	240	168	176	0.6	0.4	0.4
7.	Pulses	6.20	1,860	1,240	132	1.2	2.3	—
8.	Oil	12.40	6,510	3,410	2,406	7.3	7.8	5.6
9.	Vegetables	1.10	605	957	275	0.4	0.2	0.1
10.	Sugarcane	22.07	5,175	2,308	1,958	4.7	0.2	1.2
Total		68.25	57,488	24,675	18,296	54.6	28.7	24.6

4. Problems Set

i) Land Resources

The pattern of land use over the past 35 years has shown interesting trends. Land's which are not available for arable farming (LNA) and which include area under a) forests, b) barren and

c) non-agricultural use such as buildings, roads and structures, constitute 31.32% of geographical area during the fifties which have been progressively increasing to 33.79% during the first half of the eighties. The major causes are, first, increase in the share of lands put to non-agricultural uses (9.8% to 13.7%) and second, an increase in forest cover (14.0% to 15.7%) (Table 6).

TABLE 6
Land use Pattern

(lakh ha)				
	1950 ^a	1960 ^a	1970 ^a	1980 ^a
i) Geographical area (1 ha)	129.54	130.13	130.06	129.97
ii) Land not available for cultivation	40.57 (31.32)	41.48 (31.88)	43.10 (33.14)	43.91 (33.79)
iii) Land unutilized	21.54 (16.63)	18.70 (14.37)	13.59 (10.45)	12.57 (9.67)
iv) Net cultivated area	67.43 (52.05)	69.95 (53.75)	73.37 (56.41)	72.49 (56.54)
v) Gross cropped area	66.69	72.00	74.56	67.10
vi) Cropping Intensity	118.3	119.5	121.5	119.5
vii) Net sown Area/per capita	0.176	0.162	0.137	0.113
viii) Gross sown area/ per capita	0.209	0.193	0.167	0.135
ix) Land/per capita	0.0407	0.349	0.291	0.262
x) Critical land man/ratio	0.212	0.188	0.164	0.148

The lands under a) cultivable waste, b) permanent pastures and other grazing lands, c) miscellaneous crops and groves not included in net area sown and d) other fallow lands are grouped under land unutilized (LUA). This category has declined in its share of geographical area, from 16.63% to 19.67%. This decline is due to transfer of these lands for non-agricultural purposes (2.47%) and for Net Cultivated Area (NCA) which includes Net Sown Area (NSA) and current fallows (4.49%) and which tends to reach its limits. Population effect on land use is also very

significant. During the past 35 years NSA per capita has decreased from 0.176 ha to 0.113 ha, by 37.8%; GSA per capita has decreased by 35.4%; from 0.209 ha to 0.135 ha; and so also the critical Land-Man Ratio by 30.19% from 0.212 ha to 0.143 ha.

Annual compound rates of growth (CRG) for the above changes in land use are computed using means of the decades. LNA has increased marginally at 0.24%, 0.38% and 0.47% per annum between the fifties and sixties, sixties and seventies, and seventies and

eighties (upto 1986 / 87). For the same periods LUA has decreased at 1.40% 3.14% and 1.93%; and NCA has increased marginally at 0.37%, 0.48% and 0.04% per annum. One could draw firm conclusion that the pattern of land use over three decades suggest that prospect for land area augmentation for use in agriculture is quite bleak.

Gross cropped area is also declining during the eighties for want of adequate irrigation facilities with the mean around 67 1ha and against this, required land area is 68.25 1ha. There are two ways, one, to reclaim waste lands of 6 1ha and two, to improve land capability by treating saline and alkaline lands of about 2 1ha. Once additional lands are available additional output could be planned by allocation and crop diversification. Therefore, action points for land improvement and expansion should be to bring wastelands under plough and reclamation of saline and alkaline soils to improve their productivity.

The alternative is to focus on intensive use of land for maximum output. Cropping intensity has remained stagnant, varying between 118.3% during 1950s and 121.5% during 1970s. Irrigation sets patterns and degree of intensive farming and prospects of irrigation needs to be analysed to which we turn now.

ii) Water Resources

The state sources of irrigation depends very much on monsoon rains. Canals receive water from South-west monsoon rains and tanks get filled mostly by North-East monsoon rains. The mean values of rainfall for the period 1970 / 71 1986 / 87 indicate that 35.50% of total rainfall of 911.4 mm is received during June-September, 49.0% is recorded

during October-December, 3.3% during Jan-Feb. and 12.2% during March-May. Relevant coefficient of variations show that SW monsoon rains are relatively stable (18.5%) when compared with NE monsoon rains (28.9%). This would mean that river system has less variations than that of tank system and therefore tank management is crucial. Besides, there are variations between districts in incidence and quantum of rains from monsoons. Coastal districts down to Thanjavur experience heavy N.E. monsoon rains and their utilization with minimum run-off to seas is crucial. Rains of both the seasons are used through rivers of Vaigai, Thambirabarani and Kodaiyar and a network of system tanks.

As a result of irrigation planning in the state, an area of 1.46 1ha has been added to irrigated area during the fifties a decade of irrigation development; and the additions during 1960s, 1970s and 1980s are 0.58, 0.85 and 0.73 1 ha, respectively. Considering net irrigated area over the above three periods, there have been additions to irrigated area upto 1980s and then decline has been observed, the peak being 26.96 1ha in the seventies.

Among the sources of irrigation, canal command is declining. In terms of CGR between decades, canal ayacut has increased annually at 1.06% between fifties and sixties, 0.12% between sixties and seventies and (—) 0.53% during seventies and eighties. Tanks command area has grown at 1.60% during fifties and sixties, decelerated at (—) 0.71% and (—) 2.30% during subsequent decades. For wells, the growth rates are 2.64%, 3.59% and 0.91%, respectively. It is disturbing to note decelerating trends in all the sources, albeit at varying rates. Energization of pump-sets and ground water exploitation have

gone together actively supported by subsidies and incentives and excepting perhaps Thanjavur and Kanyakumari districts, ground water use in the State is reaching a limit, particularly in the districts of North Arcot, Dharmapuri, Salem, Periyar, Coimbatore and Madurai.

Irrigation intensity has been increasing during the first three decades and declining during the 1980s mainly because of uncertain and inadequate supply of water irrigation which is distributed with least efficiency. Similar trend is also noticed in cropping intensity. Irrigation ratio, percentage of area under crops irrigated to total cropped area, has shown increasing trend indicating an overall improvement in irrigation status. However, if this could be achieved after utilizing 94.4% of surface flow of 810 TMC and against the potential of ground water sources for 24 1ha, one might reckon limiting constraints such as power, investment and social and institutional rigidities. Stabilizing irrigated area at this level and stepping up irrigation efficiency should perhaps be our strategies for irrigation management for the decades to come.

Water resource management has three dimensions. First, surface flow mainly through canal system supported by a network of rivers depending on S.W monsoon rains. The scope for extension of area under surface irrigation is, as noted earlier, extremely limited and if feasible their utilization is contingent on inter-state decisions. When additional supply is not available, use of current level of resources should be maximized by strengthening irrigation structures, conveyance system and maintenance for monitoring flows and minimizing losses which form hardwares of irrigation management. Down below the main canal, water management

involves participation by farmers / irrigators, rural institutions for fields alignment, water scheduling and rotational irrigation, costs and returns all of which constitute software part of irrigation management. Strategies should therefore include restructuring, strengthening and improvement in both hardware and softwares of management followed by training of all participants in irrigation management.

Second, tanks system is designed in the past as a measure of water harvesting of surface runoff and canal surplus diversion into system tanks. During the eighties, tank ayacut averages 6.73 1ha. Major problems of this system are neglect and disrepair, encroachment and silting, and lack of participation by people concerned in management of tanks. Earlier, efforts were made to compile tank gazettiers and for future planning such information must be assembled and a network of tanks established for effective organization and monitoring. There has been some discussions for creating a 'Tank Command Authority' with comprehensive mandate for organization, maintenance and management of the tank system with operational guidelines on water distribution, pricing, investment and financial support and sharing. This idea may further be examined and projectized.

Third, ground water the availability of which varies between districts, its utilization has been very intensive in the districts of North Arcot, Dharmapuri, Salem, Periyar, Coimbatore and Madurai and it tends to reach limit in hard rock areas. Potential exists along coastal districts and possibility of putting additional 7.7 lakh wells exists. The major issue is related to regulating density of wells and this could be done by licensing of wells sought to be dug

either with private finance or institutional credit. Conjunctive use of surface and groundwater in combination with rotational irrigation must be encouraged through a system of incentives and support.

Fourth, as a combined strategy of land and water resource use, integrated watershed development must be launched in rainfed lands. It helps the resourcewise handicapped farmers. Furthermore, as a point of consideration to spatial equity and as a counterpart of green revolution and CADA in irrigated area, it will open opportunity for dryland farms. It involves integration of crops (annuals), dairy and poultry, forage crops, fruits, fuel and pole trees and therefore this will require multi agency and interdepartmental efforts under a well drawn line of control. Further, integrated watershed development requires investment with production lags and therefore sylvi-agronomy and sylvi-pastures need careful planning with relevant research support.

iii) Crops

Major crops are rice, cholam, bajra and ragi under cereals, groundnut and sesamum under oil seeds, redgram, greengram and blackgram under pulses. Rice occupies around 35% of total cropped area while shares of cholam is 10% and that of groundnut, sugarcane and cotton are 14%, 2.4% and 3.6% respectively. Interestingly, seven crops ranked have maintained the same ranking order over the past 35 years. They are, in the decending order of importance, rice, groundnut, cholam, bajra, cotton, ragi and sugarcane. It indicates absolute stagnation in crop pattern. Particularly, in rainfed lands millets are major but subsistence crops

and in the context of falling demand for them due to the Engel's effect they have to be considered anew as to their economic sustainability. Pulses can replace them to some extent and part of their area may go for production as poultry feed.

Compound growth rates are computed to measure changes during the past fifteen years since 1970/71

There have been deceleration in area under foodgrain crops (1.13%) amongst which rice (1.0%), bajra (2.76%) and ragi (3.25%) are significant. Among non-food crops cotton (2.32%) and groundnut (1.4%) have also shown decline in area. Sugarcane has shown positive growth. Pulses have also increased in area at 1.41% per annum. Considering the area requirements shown in Table 5 and also Col. (3) and (4) of Table 3, one might note the need for increasing area under food crops to meet the growing demand for food by the year 2000 A.D. For example, to produce 36.45 lakh tonnes of rice, production should grow at 3.77% CGR per annum which should be contributed by area and yield increases.

Crop yields in Tamil Nadu are fairly high in comparison with other states but show potential for increasing if yield potentials are considered. For rice, Tamil Nadu yields are next only to Punjab and Haryana states and 1.6 times higher than national average; jowar yields are highest in the country, 3.2 times the national average; far below the national average (71.3%) in pulses; and fairly high in oilseeds and cotton.

CGR for yield for the period from 1970/71 to 1985-86 shows that changes in yields of rice, cholam, groundnut and sugarcane have been marginal while high growth rates are noted in bajra

TABLE 7

Growth Rates for Area, Production and Yield of Major Commodities during the Period 1970/71 — 1985-86

Crop 1	Annual Growth rate (%)		
	Area 2	Production 3	Productivity 4
Paddy	(—) 1.003	(—) 0.212	0.793
Cholam	(—) 0.114	0.432	0.547
Cumbu	(—) 2.764	0.631	3.491
Maize	0.937	5.829	4.847
Ragi	(—) 3.246	(—) 1.902	1.390
Other cereals	(—) 3.121	(—) 3.472	(—) 0.362
Total cereals	(—) 1.316	(—) 0.301	1.029
Redgram	(—) 0.432	2.400	2.844
Greengram	(—) 0.609	(—) 0.130	0.483
Blackgram	6.380	8.070	1.589
Other pulses	(—) 0.809	(—) 0.148	0.667
Total pulses	.1405	5.384	4.294
Total Foodgrains	(—) 1.130	(—) 1.203	(—) 0.074
Sugarcane	2.496	2.881	0.375
Potato	(—) 2.381	(—) 0.017	2.421
Cotton	(—) 2.316	(—) 0.0005	2.372
Groundnut	(—) 1.404	(—) 0.737	0.625
Gingelly	(—) 1.708	(—) 0.251	1.483

(3.49%), maize (4.85%), total pulses (4.29), potatoes (2.42%) and cotton (2.37). Compare this with the targeted growth rates for the next decade and problems of achieving them become apparent. There are two important aspects one should carefully examine. First, it

is insisted that at present farmers' participation is only partial in the sense that only 40% of them could achieve higher yields. This is because they only have adequate means to purchase and use purchased inputs which are components of suggested technology. Details

of the other part of farmers are not available and to improve means of crop yields at State level, these farmers have to be brought into mainstream of development. They are resource poor and how to organize them will be the major concern. Motivation by education and skills training on the one hand, and by incentives and subsidies on the other has to be planned imaginatively. Experience in group farming in South Asia and some parts of India (Kerala and West Bengal) may be reviewed for designing operation plans. This has very high pay-off in terms of poverty alleviation strategies, productive gains and their income effect and overall stability and sustainability of agriculture. In support of these organizational innovations management perspectives have to be developed.

Management perspectives are related to three approaches. First, risk management by which yield instability, marketing and technological risks are handled by introducing crop diversification internally and by crop insurance exogenously. Optimizing cropping pattern under risky conditions secures certain degree of stability. Second, system management which extends to farming system covering not only crops but also complementary enterprises such as dairy, poultry, horticulture and sylvipastures. Involved here is a broader degree of activity substitution.

Third, inputs management which solve problems of achieving efficiency in inputs use. The approaches such as integrated nutrient management (inorganic, organic and biofertilizer combinations, nutrient placement and application etc.), integrated water management (rotational irrigation, conjunctive use of surface and groundwater) integrated pest and diseases management

(need based treatment, biocontrol measures) have focus on cost efficiency and wider reference to users.

More, better and relevant information on site and task specific problems need to be generated by research and research and extension interactions for making management decisions. Rural infrastructure organizations have to be restructured and strengthened to service management needs of change and development.

iv) Horticulture

Demand for fruits and vegetables tends to increase overtime due to population and income effects. Coffee, tea and rubber, spices and condiments, cashew, fruits, vegetables, medicinal plants, flowers are some of crop groups. Plantation crops have export orientation which demands cost effective technologies to sharpen their competitive edge. Other crops of fruits and vegetables have many problems of which processing and prices are important. Some fruits and vegetables are generally grown in every farm but the need is to break this subsistence type and introduce concept of production for markets. Problems are related to quality and dependable seeds and seed materials. The best strategy seems to be establish a network of nurseries on modern lines of seed/seedling production to cater to development needs. Operationally, vegetable belts around metropolitan consuming centres are organized with specified tasks and programmes supported by information and infrastructure. A review of experience under similar schemes may be taken up based on which production complex modeling is done. There have been adequate manpower trained and positioned for

managing horticultural schemes. What perhaps needed is reorientation and redesigning of programmes with perspectives of growing needs and widening opportunities during the nineties.

v) Forests

Share of forest cover in total geographical area has changed marginally by 0.2% over a period of five years (1981-86). During 1985-86 Reserved forests are 18.35 1ha, reserved land 3.39 1ha and unclassified forests are 0.61 1ha. per capita forest area has been invariant at 0.05 ha. Plantation forests include cashew, pulpwood, teakwood, soft wood and wattle. Prospect of expansion of forest area does not exist. Forest development strategies should therefore include qualitative improvement in the existing stock of trees, and strengthening of social and farm forestry pro-

grammes with full participation of resident population and private agencies.

vi) Livestock

Demand for milk, meat and eggs tends to be income elastic and special efforts are necessary to increase their output and productivity. Among livestock, cattle and buffaloes are important for draught and milk production. During the eighties, (1980/81 — 1985/86) milk production has increased annually at 10.2%, meat at 5.3%, eggs at 16.3% and fish at — 0.47% (upto the last year it has been increasing at 0.60%). Per capita availability per annum during 1985-86 has been 59.8 kg. of milk, 0.65 kg of meat, 40 eggs and 7.4 kg of fish which are very low and below the recommended values. (Half an egg/day/person and 5.6 kg of poultry meat/person/annum).

TABLE 8

Total and Per Capita Production of Livestock Products — (1980/81 — 1985/86)

Year	Population (lakhs)	Milk (lakh tonnes)	Meat (lakh kgs)	Egg (millions)	Fish (lakh tonnes)
1	2	3	4	5	6
1980-81	482	17.33 (36.1)	241 (0.50)	834 (17)	3.96 (8.2)
1981-82	488	18.86 (38.6)	272 (0.56)	917 (19)	4.01 (8.2)
1982-83	496	17.88 (36.0)	276 (0.56)	898 (18)	4.15 (8.4)
1983-84	505	25.62 (50.7)	317 (0.63)	996 (20)	4.06 (8.0)
1984-85	514	28.46 (55.4)	313 (0.61)	1062 (21)	4.08 (7.9)
1985-86	522	31.19 (59.8)	328 (0.62)	2067 (40)	3.85 (7.4)

N. B. Figures in parenthesis are per capita measures in kg for milk, meat and fish and in number for eggs.

Dairy development has received momentum in Tamil Nadu during the past decade. Key village Scheme, ICDP, Operation Flood are making good impact on composition of milch animals. About 9.4 lakh of breedable population is covered. Organizationally, upto 1986 5082 milk producers cooperatives with 9.55 lakh farmer members covering 8.3 lakh milch animals are functioning which may go to 6180 lakhs by 1990. But the growth has to be accelerated by a mission oriented approach with specific milestones (a) for upgrading indigenous breeds of milch animals in a short span of time, (b) to increase fodder production which at this pace of progress will meet just 50% of fodder needs by 2000, and build fodder banks (c) for formulating comprehensive health cover and insurance and (d) for providing technical back up by research and training.

Poultry development in pockets is well organized and technology is fastly progressing and available. Share of improved variety of birds has gone up from 17% in 1980-81 to 61% in 1986/87. Two hatcheries and 28 poultry extension

training centres provide technical back up at field level. However, another dozen poultry production complexes/ estates may be identified for accelerated growth. Marketing, transport, storage and processing infrastructures have to be built spatially dispersed to service various centres.

Feed is the limiting constraint of poultry production. Earlier, it has been reported that demand for millets is declining and superior grains are preferred. For maize, technology exists and other millets have to be processed into cost effective poultry feed. Nutrition research for converting coarse grains into poultry feed will stabilize demand for coarse grains.

In conclusion, Tamil Nadu Agriculture has shown strength in spite of resource limitations and yet growth has to be generated for which new strategies have to be designed and new institutional innovations are to be worked out to implement the strategies, wisdom lies in perspectives on which progress is to be planned for.

Workshop on Critical Issues in Tamil Nadu Agriculture

Summary of Discussion

Dr. M. S. Swaminathan, the Chairman of the Workshop in his introductory observations pointed out that the Workshop on "Critical Issues in Tamil Nadu Agriculture" should be considered very appropriate and timely since the reconstituted State Planning Commission is currently engaged in the preparation of the 8th Five Year Plan. He also hoped that the highlights and priorities as identified by the Workshop would be seriously taken into consideration in the formulation of the Current Plan. The paper by Dr. V. Rajagopalan, "Agricultural Development in Tamil Nadu — Some Perspectives" was the first paper taken up for discussion. As discussants, Dr. Dhanapalan Mosi, Assistant Director of Agriculture (Research) Government of Tamil Nadu and Mr. V. Karthikeyan, former Chief Secretary of Government of Tamil Nadu, commented on the major issues of the paper. The following were the important issues and points raised by Dr. Dhanapalan Mosi.

The crucial dependence and significance of monsoon and rainfall not only for the State's agricultural production but also for its industrial and trade

activities was underlined. Similarly, the role and importance of technology in agricultural production was also highlighted. The development of technological strategies should be in accordance with existing abundant and scarce resources. In a tropical region like Tamil Nadu solar-radiation has been an abundant resource; on the other hand, land availability and irrigation potentiality have been the two severe limitations in the resource-base of the State. The solar radiation through photo-synthesis process which converts the radiant energy into chemical energy could and should be harnessed to a greater extent for increasing the productivity of agricultural land.

The intensified use of agricultural land, however, produced negative effects in soil fertility and character. In order to counter the negative effects on production, strategies such as proper inputs delivery network, production scheduling, optimal crop-mix, and rational use of irrigation should be used more effectively. It was pointed out that through the adoption of appropriate strategies the overall agricultural production of the

State could be comfortably increased by another 60 per cent of the present level.

The organisational and management aspects should be further developed with a view to maximising the use of the existing resource-technology nexus. The high-cost and cash-oriented technologies should not prevent the small and resource-poor farmers from adopting them for higher production. In addition, the development of agricultural technologies should also be based on the location-specific farming system.

In evaluating land productivity often the component approach which takes into account the role of one or two factors only was followed. Instead, the systems approach which captures the inter-relationship of all the contributory factors should be adopted systematically. Further, the benefits accruing from the successful adoption of technologies in some projects must reach the producers and the consumers more equitably. This would act as a motivating force for the adoption of technologies in other projects also. But this normative and desirable condition is often not seen in operation. For example, the Operation Flood experiment in India enhanced the per capita availability of milk in urban centres, only at the cost of milk consumption and availability in the rural areas from where the milk supplies originate.

Since uncertainties and variations are inherent in the monsoons and rainfall, the management of tank system becomes crucial as it provides the much needed storage facility for agriculture. The scope for increasing the irrigation intensity through surface sources is extremely limited in the State as it had already been tapped to the maximum. Hence the water-sheds

should be developed in the dryland areas as the counterpart of CADA in the irrigated areas wherefrom Green Revolution resulted. In developing the appropriate water-sheds, the difference in the qualities of land should be ascertained through a number of soil tests and investigations. The exploitation of groundwater has been concentrated in the inland districts; thus the potential for exploitation in the coastal districts should be capitalised. The optimal utilisation of groundwater, by its very nature, necessitates State policies and legislations which should immediately be effected.

In the assessment of water resource management, an integrated approach involving all sources of irrigation should be followed instead of a sectoral or single source-based approach. The systems approach in land and an integrated planning approach in irrigation should be combined to effect the optimal use of the two basic resources. The various agricultural technologies thus developed should also be size-neutral and useful to the small and marginal farmers. Through this the small and marginal farmers could move from traditional subsistence farming to the modern commercial farming. Whether such a movement by the small farmers should be encouraged or discouraged remains now as one of the policy challenges before the planners.

The second discussant, Mr. V. Karthikeyan commented that Dr. Rajagopalan's paper presented a completely acceptable picture of Tamil Nadu and that his analysis was authentic, comprehensive and systematic. The reference to the non-cash inputs was particularly very significant but needed greater elaboration. Among the non-cash inputs organisational and environmental inputs

demand greater attention of the planners. The non-cash inputs such as training, skill-formation, latest technological information are much more important and relevant for the small and resource-poor farmers than to the medium and large farmers. The development of agricultural technologies must be such that it must make the availability of non-cash inputs easier, especially to the small farmers. But, organising the farmers for collectively making use of such inputs had been a difficult problem as they were trapped in a number of traditional clutches. The demand projections made in the paper for the years 1990, 1995 and 2000 should be considered realistically-derived. Along with cereals and non-cereals the increase in the production of supplementary foods such as vegetables, fruits, eggs and dairy products should also be given greater importance. Given the limited land availability, stagnancy in cropping pattern and the unsatisfactory land reclamation efforts, increasing food production through intensification of cultivation becomes the only feasibility.

Among the water resources, the significance of rectifying the various problems of the long neglected tank system management was highlighted. The decelerating trends observed in the water resources development are highly disturbing. The delayed legislation and regulation of ground water utilisation, the long neglect of tank system and the inefficiency in the per unit use of surface water largely contributed to these decelerating trends.

Since 50 per cent of cultivated lands in the State come under dry-farming the development of proper dry-farming technologies assumes special importance. The emphasis made in the paper on horticultural, forestry and dairy activities are very timely and significant. The

policies and programmes of the State should give greater importance to these agriculture-allied activities in the coming years. They should also immediately attempt to rectify the difficulties and problems of the small farmers in making use of the available cash and non-cash inputs. Given the problems of the State, Planning process should aim at a thorough overhauling of the rural infrastructure.

Reacting initially to the discussants Dr. Rajagopalan observed that the professed and practised "technological fundamentalism" has been acting as a barrier to the very adoption of agricultural technologies, especially by the small farmers. Solar radiation, for example, has all along been considered more as a natural endowment than a potential resource. In future, however, this potential resource needs to be exploited to a greater degree for increasing agricultural production. The author agreed with the discussants that in order to optimise the land-water resources in the State an integrated planning which involves inter-disciplinary and multi-agency coordination should more vigorously be pursued. In addition to and independent of Government efforts, co-operation as a mode of efficiently organising and using the available resources could be further strengthened. The successful working of the Kaveripakkam Tank Co-operative Society was cited as an example. Such an integrated planning would contribute to the viability of small holdings in the State which constitute 60 per cent of the operational holdings and are largely at present, non-viable and non-innovative. It was pointed out that potentiality and scope also exist for greater Governmental planning and investment in the sphere of agro-processing industries in the State. The products from horticulture,

forests, dairy, poultry and even millets could be easily converted into processed foods. A few private sector units have already ventured into a number of agro-processing industries. After these reactions by the author, the paper was thrown open for general discussion by the participants.

A participant raised queries as to why the farmers of the State always preferred paddy cultivation over the feasible crop-diversification and whether the estimated demand projections made in the paper were based on consumption weighted indices. The author replied that the stagnancy in the cropping pattern has been due to a variety of factors and that the demand projections were not based on any assigned weights.

Another participant raised the question whether the analysis in the paper was based on any implied assumptions. To him, the paper seemed to imply at least two basic assumptions: (i) that Tamil Nadu should produce all the foodgrains that it requires (ii) that in the context of the divergence between the actual annual growth rate of paddy as recorded from 1970 to 1985 and the required growth rate as projected, whether it would be possible to produce the entire food requirements of the State, within the State itself. The author clarified that although Tamil Nadu could always consider the possibility of importing foodgrains from other States it should seriously aim at achieving self-sufficiency. The recent developments in the agriculture of the Gangetic plains reinforces the need for the policy pursuit of self-sufficiency.

A question was also raised with respect to the timely non-availability of the institutional financial supports

to the farmers. In spite of the claim that a number of Governmental subsidies are available and provided to small farmers, they are forced to resort to private money lending sources. The crucial aspect in the land use pattern as between the agricultural and non-agricultural use of land was also raised. The non-agricultural uses such as tanneries, public housing, and chemical industries for which agricultural lands are often transferred cause considerable concern. Such transfers not only reduce the extent of agricultural lands but also create environmental problems.

The issue of the development of quality seeds and their distribution to the farmers also came up for discussion. It was pointed out that, at present, Government departments supply hardly 20 per cent of the seed requirements leaving the 80 per cent to be self supplied by the farmers. The neglected aspects of development of quality seeds and their proper distribution should be given due importance. Reacting to the difficulties expressed in organising the farmers the participant observed that the benefits accruing from programmes should be clear to all the categories of farmers. Individual benefits, being the motive force, would drive the farmers to active participation. In spite of the limitations and constraints in the provision of services by Government agencies, agricultural production could be substantially increased if the local co-operation of the farmers is freely forthcoming.

In the concluding observations the Chairman, Dr. Swaminathan, summed up the core critical issues that emerged from the workshop. In planning strategies the policy makers should concentrate sufficiently on the various aspects of the basic question of self-sufficiency

in foodgrains. With a view to optimising the utilisation of resources such as land and water, priorities should be properly identified and effectively implemented. The growth-linkages of the different activities within the agricultural sector such as horticulture, dairy, poultry, agro-processing industries and their implications in terms of employment and incomes should be integrated into the development planning of the State. Planning strategies should properly

weigh the pros and cons of different policy-options available for each of the strategies. However, such policy-decisions should be more in favour of the less powerful segments such as the small and marginal farmers, agricultural labourers and even the tribal population of the State.

C. Annadurai
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The Future of Village Industries* - Part II

V

With that we can turn to the basic question. What accounts for the growth of the traditional village industries since Independence? Or, how was it possible to reverse the trend of disintegration that was the experience during the colonial period? There is the obvious factor, the support given to these industries by the government, especially after the Industrial Policy Resolution of 1956, and the dual strategy of industrialisation of the Second Five Year Plan which envisaged not only a legitimate, but also a significant role for village industries in the programme of planned development along with the modern heavy industries. As is well known, the rationale was provided by the Mahalanobis model wherein it was shown that the capital-intensive heavy industries would generate income and that the demand arising therefrom for industrial consumer goods could be supplied by the labour-intensive village industries. It was expected that in this manner the long-term objective of capital formation and the short-term objective of employment and earnings

could be simultaneously achieved. This theoretical solution of the problem also appeared to provide a compromise, if not a resolution of what I described as the Gandhi-Nehru controversy. The support given to traditional industries on this basis has consisted of reserving some goods for production exclusively by them, imposition of restrictions on competing industries of the modern sector, marketing facilities, organisational and credit support, help for technological improvement and training, and a regime of subsidies.

I shall not attempt an evaluation of the effectiveness of these measures. The Report of the Sivaraman Committee that I have already referred to makes a fairly comprehensive review although it omits, for whatever reason, the financial aspects. The public sector outlay on all forms of village industries (khadi, village industries covered by KVIC, handlooms, sericulture, handicrafts and coir) during the Sixth Plan period was Rs. 1,160 crores and is expected to go upto Rs. 1620 crores in the

Seventh Plan. The value of output of these industries during the final year of the Sixth Plan was Rs. 7725 crores. Taking the annual average of public outlay for these industries, the output-outlay ratio was 33:1. By way of comparison it may be noted that the public outlay for small-scale industries (including powerlooms) was Rs. 620 crores during the Sixth Plan and the sector's output was valued at Rs. 56,943 crores and so the output-outlay ratio calculated as above was 460:1. If public outlays for the two sectors are related to employment provided by them in 1984-85 it turns out that a public outlay of Rs. 140 crores supported employment (full-time and part-time taken together) for one person in the village industries, whereas public outlay per person employed in the small-scale industries sector was Rs 102 crore. Thus both in terms of output and employment, public sector outlay is seen to go farther in the small-scale sector than in the village industries sector. This does not necessarily show that the small-scale sector is more efficient than the village industries sector because private outlay or investment in the former is certain to be much higher than in the latter, but it raises questions about the manner in which public resources are to be channelled for social objectives.

By far the most important factor, that has contributed to the reversal of village industries during the past three or four decades is the general performance of economy itself. As against the overall stagnation of the first half of the present century, the Indian economy has indeed picked up since Independence. Net national product grew at an annual rate of 1.2 per cent from 1900 to 1950 showing virtually no sustained increase in per capita NNP, but between 1950 and

1985 NNP grew at an annual rate of 3.7 per cent and per capita NNP at 1.4 per cent not withstanding sharp increase in population during this period. Agricultural output grew at 0.3 per cent per annum during the former period, but increased to 2.9 per cent in the post-independence period while industry's growth rate moved up from 2.0 per cent per annum to 6.4 per cent. But it is necessary to consider what kind of impact such growth would have had on village industries. Would such growth stimulate village industries or tend to eliminate them?

As in many other socially significant aspects such as, for instance, on the extent of poverty or its eradication, the impact of growth on village industries too is more related to the characteristics of growth than to its quantum. Since the disappearance of demand was one of the main reasons for the decay of village industries during the colonial period, the general stimulus that the economy, including its rural areas, came to have since the beginning of planned development must have provided an incentive for those who had depended on village industries to take to production again. Since these industries do not require much of equipment, and since their production depends substantially on labour processes themselves, they do tend to respond fairly quickly to the stimulus provided by increased demand. And the improvement of agriculture and other forms of economic activities in the rural areas must have generated demand for products of a variety of rural industries. That is what the location effect already discussed points to. This may be considered as the active contribution of general economic growth to the revival of village industries and their expansion. But there is a

* Abstracts of Part II of the paper by Dr. C. T. Kurien for the Prof. N. G. Ranga Endowment lecture held at the Andhra University on January 31, 1989.

passive factor also to be taken into account. The character of growth may be such that it is not adequately absorbing the increasing labour force into higher forms of production. If so, village industries may grow, not because the demand for their products is increasing, but because those dependent on them have no other alternative to eke out a living. It is important to know which of these has been happening in the Indian economy, for it is one of the crucial aspects on the basis of which to make some assessments about the future of village industries.

However, it is not easy to provide a definitive answer. The experience of different industries is likely to be different. There are also bound to be regional and temporal differences. And, of course, it is not an either/or phenomenon. It is more likely that the experience of village industries since Independence has been a mixture of the active and passive expansion. In any case empirical evidence pertaining to these aspects is hardly available.

The 29th Round of the National Sample Survey Organisation gathered information on self-employment in non-agricultural enterprises for the period July 1974 to June 1975 and a study which has analysed the data yields some clues about the issue we are concerned with.¹⁸ Apart from the analysis of the NSS data, the study reports also the findings of the author based on field studies in parts of Uttar Pradesh.

Examining the nature of the industries in the different States, the study comes to the conclusion that it is difficult to justify any resource or input based explanation to the observed regional pattern; rather, the regional

pattern appears to be a continuation of the past and more closely related to the demand factor. As to the relationship between agriculture and rural industries, no definite pattern emerges suggesting a link between the nature of agricultural operations especially, cropping pattern, in a region and the extent of rural industries there. However, the performance of rural industries and agriculture appear to be closely related. The income generating capacity of rural industries expressed in terms of value added per worker is found to be very closely associated with growth rates of agricultural production. In States such as Punjab, Haryana, Tamil Nadu and Gujarat which showed fairly high rates of growth in agriculture (taking the quarter century from 1952-53 to 1978-79) the rural industrial units are seen to be using electric power to a significant extent, to have a relatively high value of fixed capital and thus to have a higher productivity of labour and higher earnings for labour as well. In contrast States with low agricultural growth, especially Madhya Pradesh show the lowest capital intensity as well as value added per worker. On this aspect the study concludes: "It is the general development of the area accompanying fast agricultural growth, rather than mere local raw material supply and local demand as such that seems important for improvement in productivity of rural industries. The relationship is, therefore, better seen in dynamic perspective."

The NSS data used in the study show that the rural industries have, overall, very low value added per worker, but with substantial regional differences. Punjab showed the highest value added per worker of Rs. 1344, followed by Assam at

Rs. 1288. Other States with value added per worker over Rs. 1000 were Gujarat, Tamil Nadu, Haryana, Uttar Pradesh and Kerala in descending order while all other States showed figures less than Rs. 1000 with Orissa having the lowest figure of Rs. 474. These absolute figures may not convey much sense. We may, therefore, compare them with the per capita income of the States for 1974-75. In Punjab it was Rs. 1505, Assam Rs. 811, Gujarat Rs. 1217, Tamil Nadu Rs. 852, Haryana Rs. 1217, Uttar Pradesh Rs. 807, Kerala Rs. 884 and Orissa Rs. 707. It can be seen that in five out of the seven States where value added per worker in rural industries showed a high absolute level of over Rs. 1000, these figures were also higher than the respective per capita income showing that the performance of rural industries was good also in a relative sense. The exceptions are Punjab and Haryana where the per capita income itself was considerably higher. On the other hand in States where rural industries did poorly, their performance was lower than the (low) per capita income itself. The typical case is Orissa where the value added per worker in rural industries at Rs. 474 was only 67 per cent of the lowest inter-state per capita income of Rs. 707. In broad terms, therefore, we may speak of a Punjab pattern and an Orissa pattern, the former where the good overall performance of the economy (represented by high levels of per capita income and high growth rates in agriculture) is associated with higher productivity in rural industries and the latter where poor overall performance gets reflected in low productivity of rural industries.

A third factor also must be noted in relation to the performance of village industries since Independence. It has already been indicated that the increase

in output of these industries has been, to a large extent, a demand induced phenomenon. Unlike during the pre-colonial period when there was a close connection between the suppliers and users of the products of many, though not all, of the village industries, during the last four decades, the growth in demand for these industries was almost entirely a market-mediated demand. This mediation or intermediation has been performed to some extent through the agencies of the State as in the case of the cooperatives of the KVIC and Handloom Boards, etc. But substantially it has been done by private traders. They are of two kinds. First, there are the traders who operate in limited geographical areas like a district linking up the producers of village industries and their potential customers in the same region, especially in the rural areas. They operate with limited capital and through organisational structures which are essentially indigenous and unsophisticated. There are also the big traders or trading agencies operating primarily in overseas markets, especially in the case of handlooms and handicrafts. Now, whatever may be their size and spheres of operation, they both represent merchant capital and at the ground level their procedures have much in common. They provide the basic requirements of the producers, raw materials and credit, and provide them also "orders" which act as the demand factor, but may also include specification of designs. Their positive role is to identify "markets" where they exist, and create markets where they don't, and to link up the producers with such markets. However, they also take full advantage of their position. As the suppliers of raw material and credit to the producers, they determine the prices of both the inputs and outputs and fully utilise their powers

as monopolistic buyers and monopolistic sellers. They also exert many kinds of extra economic pressures on the producers whom they may not convert into wage earners under them (for they have little interest in production as such) but manage to make benefits by squeezing the producers to the maximum extent. Most village industries come under the domination of merchant capitalists who have perfected techniques to generate a fairly high rate of profit for themselves even from, or primarily from, the lower forms of production. A recent study of bidi workers of Central India provide a graphic account of their functioning.¹⁹ Because of their intervention, the actual earnings of those who work in village industries, including the self-employed independent producers, are likely to be much lower than their productivity, which itself is very low. Indeed, the growth of self-employed producers is an invitation for the play of merchant capitalism, a fact which is all too often not recognised by those who favour self-employment on ideological grounds. Be that as it may, there can be little doubt that the regeneration and expansion of the activities of village industries after the disintegration of the traditional socio-economic milieu in which they once functioned must have come about in a large measure by merchant capitalists finding a new opportunity in the changed circumstances.

VI

What, then, of the future? To answer this question, it is important to be clear as to whether our concern is to be about the future of the village industries per se or about those who are dependent on them. It may appear self-evident that our concern should be the future

of the workers, both of the workers who are active now and of the workers who will be joining the labour force in the future, rather than with the physical equipment or the organisational structure of the industries as such. But it cannot be taken for granted because policies sometimes get formulated as though there is, or should be, some commitment to hand production as such or chakra as such or self-employment as such or market as such.

If there is a serious commitment to the future welfare of the workers, there must be a planned effort to phase out the lower forms of production because they are incapable of raising labour productivity. On this aspect the policies of the past have been rather ambiguous. The approach to the village industries in the Industrial Policy Resolution of 1956 and subsequently has been in terms of the contribution they make currently to employment, earnings, decentralisation, etc. But there is no clear statement that they should be treated as a transitional phenomenon and that the long-term policy must be to see that they yield place to forms of production which are capable of much higher levels of labour productivity and are also technologically better integrated with other sectors of the economy enabling them to have sustained renewal.

Even granting that there is such a clearly stated longterm policy, there will still be the need to manage the transition in view of the large numbers who are now precariously dependent on the many existing low forms of production for their livelihood. Our planning procedure in this regard in the past was essentially one of "walking on two legs" as envisaged most clearly in the Mahalanobis strategy. The Mahalanobis strategy was primarily one of the long-

term transformation of the economy into one in which labour productivity in all sectors would go up because of sustained increase in capital intensity with the interim employment and consumer good needs being met by the village industries. I am of the view that confronted with a situation of our kind, that is the only feasible transitional strategy. What tends to be overlooked is that some very major props are necessary if "walking on two legs" is to be effective and truly transitional rather than an ineffective but permanent settlement. A quick look at the Chinese experience may be useful at this point because of the success that that strategy achieved in that country.²⁰

Immediately after the Revolution in China in 1949 the situation there in terms of industrial profile was similar in essential features to ours. In China too the traditional industries dominated while the modern industries were still at a nascent stage. To the Chinese leadership there was no doubt that the future belonged to the latter, but they realised too that the former could not be wished away or wiped out. Hence an important role was provided for them in the total restructuring of the economy. One of the major elements of this restructuring was bringing about the common ownership of land and the formation of the communes which were given the responsibility of organising production with its geographical territory and of ensuring that all its members had some claims to the produce in return for work. Ensuring the livelihood of all members, thus, became a social responsibility and production and distribution were organised towards this end, and for enhancing labour productivity all round. Within this organisational structure, the role assigned to traditional industries was to make the best use

of local resources to meet local needs. At one stage in China's development process local self-sufficiency and non-market transactions were relied upon, but later events have shown that these were accepted as expediences of the time rather than as sacrosanct arrangements of the new social order. Within the structure of the communes the rural industries were linked to agriculture on the one hand and large-scale industry on the other. The growth and increase in productivity of these two major sectors became the source of the technological transformation of the traditional industries. Agricultural operations were exceptionally labour absorbing and consisted of land reclamation, field regularisation, prevention of soil erosion, irrigation works, water conservation, etc., apart from operations directly relating to crop production. These activities called for a variety of local industries related to agriculture. The stimulus that the rural areas came to have through these activities led to an increase in the demand for locally produced consumer goods. A programme of interlinked expansion was thus put into effect in which the rural industries came to have a useful and dynamic role. In this overall dynamic setting several changes—of technology, institutions and social organisations—came about and still continue to appear.

The reference to the Chinese experience is not meant to suggest that the Chinese transformation was a smooth one or that mistakes were not made—far from it. It is not implied either that the Chinese model should be replicated in our country because that is an impossibility. And yet there are lessons to be learnt. The first is that where society accepts responsibility for the basic livelihood of all its members and translates this responsibility into

action through appropriate institutions and organisations, technological transformation becomes easier and more systematic. Secondly, the transformation of the traditional industries can hardly be achieved from within and by making special efforts directly for them. Their transformation depends on the extent to which they are linked up with other sectors through deliberately creating and sustaining forward and backward technological linkages. Thirdly, and following from the second, the transformation of the traditional industries is closely related to the dynamism of the other sectors, agriculture and large scale modern industry in particular.

If these are the basic ingredients of what may be described as a successful transitional strategy for village industries, we may use them for evaluating our own policies of the past and for indicating the prospects for the future. Our socio-economic policies since Independence have been such that the only guaranteed entitlement for those who are entering into the labour force is the right to vote. Notwithstanding some noble sentiments in the section on Directive Principles of State Policy in the Constitution, there is no guarantee of livelihood or work to anyone. By implication it follows that livelihood depends on one's own command over resources and from a very distant past we have had a section of people in our society who did not and could not own any resources. Upto a period village communities had perhaps assumed a kind of collective responsibility, not to provide to each according to his needs, but according to his status in a highly hierarchical and inequitable social order. We have seen that what is frequently referred to as the disintegration of traditional industries was the disintegration of that social order.

Since Independence, in spite of our profession of socialism the socio-economic system has come to rely increasingly on the privatisation of resources, and work and livelihood too are closely related to resource power. In the mean while, partly as a consequence of the increase in population, but mainly as the result of the attempt to stimulate growth based on private resource power, the number of people without social guarantees of work and livelihood has enormously increased. The continuance of low productivity traditional industries in our country is, in simplest terms, indicative of the struggles of such people for survival and is thus the cruel manifestation of our basic social philosophy that only those who have command over resources have the right to reasonable levels of living. As long as we hold on to that philosophy and economic policies based on it the tragedy of those dependent on traditional industries will continue. But let it be noted that it is a tragedy not of their making, but one which the rest of society has imposed and continues to impose on them.

In that sense we have no long term policy towards village industries in a positive sense, but only a policy by default, and all the measures we have adopted for village industries are temporary expedients in the name of doing some good to some poor people. As one looks towards the future on departure from this tradition of the immediate past is within sight.

And so, the first thing we can say with a degree of confidence about the future of village industries is that they will continue. But, alas, the indications are that more on the Orissa type of passive expansion is what is likely to happen. The reasons are not far to

seek. There is, first of all, the long-standing problem that our modern industries have not been growing fast enough to absorb anything but a very negligible proportion of the rapidly increasing labour force. Within agriculture, the decade of the sixties witnessed a substantial reduction of cultivators and a phenomenal increase in the proportion and numbers of agricultural labourers. During that decade, possibly, the growth of agricultural operations was adequate to absorb them at least partially, but it would appear that in the eighties agricultural growth has glaringly slowed down. Agricultural growth rate which was 2.48 per cent per annum from 1950-51 to 1964-65, and 2.24 per cent per annum for 1967-68 to 1981-82 (leaving out the intervening drought years and roughly indicating a pre and post HYV period) came down to 1.5 per cent per annum during the eighties, upto 1986-87, the pre-drought year, that is.²¹ Along with it, it would appear that labour absorption into agriculture is also beginning to slow down. This probably explains why there was no further increase in the proportion of agricultural labourers during the decade of the seventies, and, instead, there was a perceptible increase in the proportion of non-agricultural labour force in the rural areas. The characteristics of this rural non-agricultural labour force have not yet been adequately examined, but the evidence available suggests that there is a strong positive association between unemployment rate and non-agricultural rural labour force.²² Further, the proportion of "marginal farmers" (with landholdings not exceeding one hectare) has also been increasing over time with the latest available figure showing that they constituted 55 per cent of the land owning households in the country in 1982. Thus both on a full-time and part-time basis there is

likely to be more people who will have to turn to some form of non-agricultural occupations in the rural areas, and traditional industries are likely to "absorb" a share of these non-traditional workers. There can be little doubt that intermediaries of various kinds will take advantage of this situation.

While this is likely to be the general pattern, the UP study that was referred to earlier reports some tendencies in the opposite direction. One of these is the case of well-to-do farmers (usually those owning over five hectares of irrigated land) going in for agro-related industries such as cane crushing and blacksmithy units for repair of modern farm implements. Such instances have been reported from Punjab, Haryana, Tamil Nadu and other places where part of agricultural surpluses are being channelled into rural industries of higher technological features. But these are too limited to be accepted as providing a quantitatively significant transformation in the rural areas.

Under these circumstances, what must be the nature of social policy towards village industries? I have already indicated that our unwillingness to bring about the necessary restructuring of the basic features of our socio-economic system makes it virtually impossible to evolve systematic policies for the long term solution of the problem of village industries through rapid technological transformation. Having thus preempted effective long-term policy we have been concentrating on short-term ameliorative measures. It is in the very nature of the situation that such measures run into difficulties that can be easily anticipated, but are not easy to counter. The typical example is provided by khadi. There has been some

limited technological upgradation in the industry which has led to an increase in output, but immediately stocks begin to pile up because of demand constraint. Another example comes from the bidi industry where the government has taken the initiative to form cooperatives to ensure some kind of minimum earnings for the workers. Bidis produced through cooperatives are given appropriate brand names, but soon "No. 2 bidis" come to the market at lower prices as they are produced by agents who do not have to adhere to minimum wages.²⁴ These and similar instances show how terribly circumscribed policy measures are. Hence I shall not enter into the realm of specific policy recommendations, but shall confine myself to some general observations.

The first is that in spite of all the limitations and difficulties, protective measures for village industries, including subsidies, must continue. This may appear to go against the canons of efficiency. But we must evaluate it in the proper context. The principle of subsidies has a prominent place in our economic system and subsidies are given not only to village industries, but to practically all sectors of the economy including agriculture and the modern large scale industries. This is based on two considerations, the first that in our system efficiency itself cannot be judged solely on the basis of market performance as the markets do not function as they are theoretically postulated to be and secondly that subsidies are indicative of certain social objectives which the markets do not reflect even when they can be claimed to be functioning effectively. Both these apply with greater force in the case of village industries. They tend to become victims of the forces that exercise enormous control over markets and can use the market

mechanism to their advantage. And secondly, the protective measures and subsidies given to village industries is a kind of social security to those who are forced to depend on them to eke out a bare subsistence. Whether this indirect way of enabling people to survive is the most satisfactory procedure - either in terms of economic criteria or in terms of social philosophy - can be raised as a legitimate question, but in so far as it gives rise to more fundamental questions about the basic socio-economic structure we should have, the decision has been that we are not prepared to pursue that question to where it might lead. Hence while the subsidies can be considered as a necessary form of social support to those who deserve such support, they may also be viewed as a kind of penalty for social evasiveness.

Secondly the policy towards village industries must become more discriminating. Consider, for instance, the confusion arising from clubbing together village industries and small scale industries. It is possible to argue that both village industries and small scale industries need to be protected against large scale industries. But the differences between them are so pronounced that there is hardly any logic in combining them solely on the basis of the size of the operating unit. Myrdal is probably right when he said that it was a kind of compromise to ensure support for policy from a heterogeneous assortment of articulate people or a strategy arising from a more or less conscious wish to extend the inherited ideological sympathy for cottage industry to substantially bigger entrepreneurial units, though not the largest ones in the modern sector. Measures for protection without clearly specifying the target group have frequently enabled the more powerful within the group of "village and small

scale industries" to hijack them all, even when the intention was to extend support to the weaker ones. That this has been happening systematically within the handloom industry where power-looms turn out to be the beneficiaries of all protective measures extended to the handlooms as such has been fairly well documented.²⁵ What follows from it is that for policy to achieve its objective there must be more clearly defined constituencies. Mis-specification can lead only to confusion.

The village industries themselves are not a homogenous lot. This is partly recognised by having industry specific administrative machinery such as Handloom Board, Coir Board, etc., as also the KVIC. But it is not clear at all that a mere productwise classification is the best way to recognise the heterogeneity of village industries for policy purposes. A more rational economic classification of village industries is necessary and is possible. For instance, there are village industries such as mat and basket making which do not face direct competition from other forms of manufacturing either on the input side or the output side. In contrast are handlooms where both on the input and product side they face stiff competition from small scale and large scale industries. There are industries like match manufacture where introduction of modern technology is not of advantage in many processes and hence the organisational aspects of production can take different forms. There are village industries such as pottery which may cater to poorer sections of the society and primarily in the regions where they are produced and others which cater essentially to affluent clientele in different parts of the country and outside. If these and other specific features of different village industries

are recognised, it must be possible to chalk out more effective policies to support them. From this and related considerations, it is also necessary to examine whether the industry specific administrative machineries are the best to deal with the overall problems of village industries. The Sivaraman Committee, for instance, has stated that even feasible mechanisation of processes within the khadi industry have not received the attention that it should have because of the historical background of the KVIC. It is also necessary to consider whether the best way of protecting the interests of the workers now engaged in khadi production is to go on as in the past or to be more responsive to the demand situation.

A more discriminating demand management through appropriate product differentiation is also necessary. The products of village industries must be pushed not merely on the grounds that they come from traditional production processes, but more so in terms of their diverse intrinsic qualities. Some are of very high aesthetic value. This aspect must be emphasised and such items should be priced as objects of art. The special attractiveness of cotton to suit the hot and humid climate of the country should be brought out and support for a variety of items of handlooms and khadi should be canvassed on that basis. The medicinal values of products of village industries such as honey should be highlighted. The strategy should be to push the products of village industries to different constituencies on the basis of different criteria that are likely to find favour. In this manner it may be possible to intergrade the village industries at the product level into a national market which is getting increasingly diversified.

However, the special relationship that has existed and continue to exist between village industries and their immediate vicinities cannot be overlooked. From this perspective the First Five Year Plan expressed a basic truth that village industries have to become the concern of the village community functioning as an organised group. The kind of village community that the early planners envisaged does not exist now, and probably did not exist then. But the principle underlying that statement is valid because of the location effect of village industries especially from the demand side. A greater coordination of economic activity at the local level may make it possible to recognise and realise the technical links of village industries with other sectors and also to cater more effectively to local demand. But once again, one comes back to the refrain that a strategy for village industries cannot be designed and implemented except within a larger strategy for economic development and social transformation.

Having examined a wide range of issues relating to the village industries, let me now summarise. Even during the precolonial period the village industries were of rather low technological capabilities and the earnings and social status of those depending on them were also rather low. A sizeable section of these industries had already come under the commodity-money regime and the domination of merchant capitalism. The aggressive onslaught of colonial capitalism and of competition from foreign industries of a higher level of technology led to their decay and to the disintegration of the socio-economic order within which they functioned. In this process the more advanced among the village industries were the ones to be wiped out while the more

primitive continued to linger on. The slow development of capitalist production during the British period prevented their total disappearance. Economic policies since Independence have enabled the village industries to continue. In some parts of the country which have experienced high and sustained growth in agriculture, the village industries have benefited from the increase in local demand for their products, but by and large, they have continued to be what they have always been, of low productivity, low earnings and under manifold forms of exploitation. The precarious existence of these industries is, therefore, mainly because in the absence of any social policy assuring people work and livelihood, they provide an opportunity to eke out a living and to supplement earnings from other sources.

As one looks to the immediate future, one does not see any indications of change in these conditions, either of basic socio-economic policies or of a more stimulated economic performance, especially in agriculture. Hence the prospects for village industries, rather for the millions who are currently engaged in them, do not appear to be particularly bright. On the contrary, the indications are that the future would be a repetition of the past—both as farce and tragedy—drudgery of work, low levels of living and subordination to a variety of social forces. [My thanks are due to S. Guhan, Nasir Tyabji and S. Subramanian who commented on a preliminary draft of this lecture]

NOTES

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Longman in association with Cambridge University Press, 1984).

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3. V.I. Pavlov, 'Historical Premises for India's Transition to Capitalism'. (Moscow Nauka Publishing House, 1979. 51-52 & 122).
4. The Cambridge Economic History of India, Vol. I, p. 291.
5. *ibid.*, p. 285.
6. *ibid.*, p. 278.
7. *ibid.*, p. 284.
8. V.I. Pavlov, 'India's Socio-Economic Structure from the 18th to Mid-20th Centuries' in V. Pavlov, V. Rastyanikov, G. Shirokov, India: Social and Economic Development (18th-20th Centuries) (Moscow, Progress Publishers, 1975) p. 65.
9. D.R. Gadgil, 'The Industrial Evolution of India in Recent Times, 1860-1939,' (Delhi, Oxford University Press, 1972, Chapter XII).
10. "There was, to put it in another way, a direct relation between the persistence of backward productive forces in agriculture and the preservation of the lower forms of industry"—G.K. Shirokov, 'Industrialisation of India' (Moscow, Progress Publishers, 1973), p. 15.
11. V.I. Pavlov, *Loc. Cit.*, p. 30.
12. One of the most perspective accounts of the British experience is in E.P. Thompson. 'The Making of the British Working Class,' (Penguin Books, 1968).
13. Jawaharlal Nehru, 'An Autobiography,' (Delhi, Allied Publishers, 1936). p. 525.
14. In 'Economic Weekly' several issues, 1956.
15. Amartya Kumar Sen, 'Choice of Techniques-An Aspect of the Theory of Planned Economic Development.' (Oxford, Basil Blackwell, 1960).
16. One of the best examples of this kind is Charan Singh's 'India's Economic Policy-The Gandhian Blueprint' (New Delhi, Vikas Publishing House, 1978) in which the author says: 'Circumstances of a country like India where land-man ratio is low, where labour is relatively abundant and capital scarce, that is, men are cheaper than machines, calls for an economy in which hand-operated industries or handicrafts and cottage industries will predominate' (p.92). He goes on to argue that this is as it should be.
17. The situation is similar to the manner in which the National Commission on Labour in its Report (1969) referred to a group of workers who "cannot be identified by a definition but could be described as those who have not been able to organise in pursuit of a common objective because of constraints such as (a) casual nature of employment; (b) ignorance and illiteracy; (c) small size of establishments with low capital investment per person employed; (d) scattered nature of establishments. (e) superior strength of the employer operating singly or in combination."
18. T.S. Papola, 'Rural Industrialisation and Agricultural Growth: A Case

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21. The figures for the 1950-51 to 1981-82 period are from R.M Sundrum, 'Growth and Income Distribution in India: Policy and Performants since Independence', (New Delhi, Sage Publications, 1987) and for the 1980s from Centre for Monitoring Indian Economy, 'National Income, Consumption Expenditure, Saving and Capital Formation, Quick Estimates 1986 - 87 (February, 1988).
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23. A. Vaidyanathan, "Labour Use in India: A Study of Spatial and Temporal Variations" 'Economic and Political Weekly,' December, 27, 1986.
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ANNEXURE

Performance of Khadi and Selected Village Industries 1953-54 to 1983-84

a. Physical output — b. Value of output — c. Employment

	1953-54	1963-64	1973-74	1983-84
1. Khadi				
a. mil metres	6.60	71.51	55.72	102.48
b. Rs. crores	2.19	22.09	32.72	150.17
c. '000	379	1860	884	1354
2. Processing of Cereals and pulses				
a. Lakh quintals	1.9	7.02	11.09	N.A.
b. Rs. lakhs	76.40	308.02	1363.75	5229.4
c. '000	5.1	11.0	8.0	62

	1953-54	1963-64	1973-74	1983-84
3. Ghani Oil				
a. Lakh quintals	0.58]*	5.96	3.23	21.18
b. Rs. crores	0.94]	14.56	7.48	165.9
c. '000	30]	41	33	65
4. Leather				
a. N.A.				
b. Rs. lakhs	0.03	226.51	825.72	9803.6
c. '000	N.A.	16	36	161
5. Matches				
a. Gross boxes	112	87,723	3,80,869	N.A.
b. Rs. lakhs	0.01	5.58	31.42	2,000.24
c. '000	N.A.	0.7	2.0	33
6. Gur				
a. '000 quintals	N.A.	1182	2511	3526
b. Rs. lakhs	N.A.	953	3536	8808
c. '000	N.A.	35	107	133
7. Palm Gur				
a. N.A.				
b. Rs. crores	4.3	7.43	7.79	22.38
c. '000	296	377	305	527
8. Soap				
a. '000 kg.	243	4678	10,252	41,000
b. Rs. '000	267	6457	30,084	2,68,900
c. '000	3	14	7	13.4
9. Handmade paper				
a. Matric tonnes	854]@	1601	3348	5181
b. Rs. lakhs	15.6]	31.86	95.10	371.18
c. '000	3]	4	4	5.1
10. Bee keeping				
a. Lakh kg.	0.09	7.14	24.46	44.44
b. Rs. lakhs	0.40	38.70	171.72	758.87
c. '000	2.2	58.0	150.4	198.6
11. Village pottery				
a. N.A.				
b. Rs. crores	0.01	0.98	4.52	48.66
c. '000	N.A.	20	47	221

N.A. Not Available

* 1956-57

@ 1957-58

Source: Khadi and Village Industries Commission

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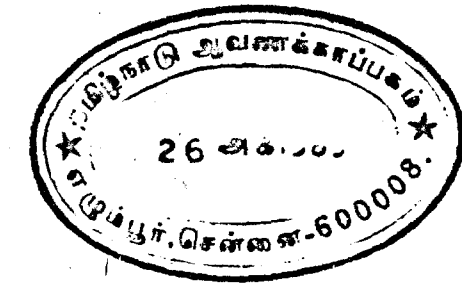
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Fisheries in Tamil Nadu

Tamil Nadu Backward Classes



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Rural Development

Employment

Poverty

Social welfare

Transportation

Financial Resources

have been meeting three times during August and are establishing their first draft reports by the end of the month, so that the commission could meet with its chairman in September and review and approve the states Eighth Plan. It will be noted that the state Plan is being established before even the Approach Paper for the Union Eighth Plan has been established. There is some thought that the Union Planning Commission has been asked by its chairman, the Prime Minister to defer work on the Eighth Plan till after the elections which are expected between October 1989 and February 1990. In a sense this is good, because for the first time the state plan is not sale replica of the Union Plan. The State Planning Commission should use this occasion to develop planning at the district / block level and incorporate such plans in the final version of the state's eighth Plan. The time available till the end of the year can be used for this purpose.

Climate and prices

The month has recorded a heavy rainfall in the state. As of mid August, only Chidambaram district was deficient in rainfall (from June I) compared to the 3 districts in 1988 and 8 in 1987. A significant feature of this rainfall is the southern districts of Tirunelveli, Kamarajar, Dindigul and even Dharmapuri have received rains far in excess of their normal levels. Even Madras figures in this list of surplus rainfall districts the others being Madurai, North Arcot, Pasumpon, Periyar, Pudukottai, Ramana-thapuram, Salem, Thanjavur and Tirunelveli. Chidambaram's rainfall is deficit by 21 per cent, Coimbatore 13.7 per cent and Kanyakumari and Nilgiris by 11 per cent. Madras has received 299.1 mm of rainfall from June I against a normal 178.4 mm. Despite there has been no significant increase in the storage of the city's reservoirs because the rainfall in the catchment areas has been limited. The combined storage in the city's reservoir is 586 cmcft against a total capacity of 6488 mcft. Now the expectation is that the North East monsoon will prove equally abundant, both to meet the city's drinking water and the farmer's requirements, given the late opening of Mettur, to be referred to later. On prices in the state, as CSO's monthly abstract of statistics for June has not been received, the consumer price levels for industrial workers and agricultural workers for February (for the latter group for March) 1989 and for urban non manual employees for February, reported in the last issue of Bulletin stands as there is nothing further to report.

Power

The power situation in the state was normal in February, with the very

small cut (20 per cent) on HT consumers, and no load shedding for industry or agriculture, as the storage levels in the states hydel reservoirs are satisfactory. It is the future which is disquieting. By 1992-93, 2000 MW will be additionally needed for which North Madras should be ready by then to supply 630 MW, Tuticorin 420 MW, Mettur 210 MW and 110 MW from Ennore. This means that atleast 300 MW will have to be added annually, requiring Rs. 300 to Rs. 400 crores per year. Even so, the state will be in deficit by 10 to 15 per cent against power which will have to be imported from the surplus states and possibly a higher quota allocation from Union projects. The Electricity Board reports that its 3 main thermal plants has suffered an average 26 per cent shortfall in coal receipts during the past year, Tuticorin's by 22 per cent, Ennore by 29 per cent and Mettur by 40 per cent. This receiving gap between the linkages and supplies forced the Board to draw heavily on hydel power, which is being used as a base load instead of as peak load. For the current water year (July 1989—June 1990) power prospects are that total availability of energy (19917 MU) will be less than the requirement (21,900 MU). The average shortfall is 5.3 MU per day. The industrialists have asked the government to be cautious in use of hydel resources to be used for peak load only. Immediately the Tamil Nadu Alloy Foundry company (TAFCO) is about to be wound up as the state is not able to supply uninterrupted power in the package for its rehabilitation drawn up by BIFR. TAFCO has gone to court to stay the BIFR proceedings so that the State government order of March 28, 1983 promising it a quota of 2600

KVA on demand and 3 lakh units of energy per month to its plant at Hosur is implemented. How can the court grant this, when the state does not have the power to provide it. The state government reports that 12,400 go-bar gas plants are to be set up this year with a subsidy of Rs. 3.23 crores so far 89,502 plants have been established.

For the country as a whole, the power situation has become normal, largely because of plentiful south west monsoon which has filled all the hydel reservoirs of the country. Idukki is 75 per cent full and all power cuts and load shedding has been abolished in Kerala, Maharashtra, Gujarat, UP and Bihar have a good storage situation and power supply is normal. In Karnataka, the hydel reserves are full but the government is cautious in its use and so the power cut has been reduced, not abolished. So too in AP where in view of the lower levels at Srisaillam and Nagarjunasagar hydel stations than last year, the power cut on HT units has not been lifted but reduced, both demand and energy cuts. The problem is that despite additions to generate power, deficits will be serious and continuing in the southern regions. To counter this in part, import of night power through strengthened transmission systems and additional utilisation of natural gas for power generation are under consideration and action. Karnataka will be adding 1800 MW to 1900 MW thermal generator in the VIII Plan which might relieve a little of its excessive dependence on hydel power. Kerala will be reducing its transmission losses from 28 to 24 per cent and looks to NTPC and Neyveli for additional power. AP states that 1300 MW will be added to its generation through two units of 210 MW

each at Vijayawada II, 430 MW at Muddanur, and 500 MW at Vijayawada III. These will still leave the region in a deficit state. The government estimate that the share of hydel projects will fall in the VIII Plan from 29 per cent in 1989-90 to 25.71 per cent in 1994-95 and will continue into the VIII Plan instead of moving to the norm of 40 hydel and 60 thermal. Hydel has the advantage being cheaper to run, though initial costs are higher and less pollutant. It is the answer to our problem of peaking. What is needed is for a system's review and approach to all sources of power — thermal, hydel and non conventional.

Water

Water was released on August 20, some 2 months and one week after the normally scheduled date of 12 June. The water by 19 August was 82.55 feet equivalent to 44,547 tmc ft against the full capacity of 93.47 tmc ft. With the surplus Karnataka's KR Sagar and Kabini, the inflow into Mettur will further increase. Farmers have been advised to go in for a single crop of a suitable variety using water economically. The water is to be supplied till January 28, 1990. The state's standing Irrigation Development and Water Resources Commission was inaugurated in August to study the river basin potential and build a data bank, review and assist the government in inter-state negotiations, assess the ground water potential and suggest measure for effective recharge and modernisation of the irrigation systems, advise on cropping patterns, prepare an integrated project for the development of catchment areas, to maintain ecological balance and advise the government on the enactment

of a comprehensive water law. These are urgent and essential water needs which will now be addressed. The commission will explore surface and ground water potential in the state and augment drinking water supplies to the rural areas. A project to provide piped water to parts of the dry areas of Madras through water drawn from NSK Salai to an underground 8 lakh litre tank at Ashok Nagar through a 400 mm pipeline is being completed. The scheme will benefit 27,000 families in West Mambalam and Ashok Nagar.

Transportation

In August, a number of developments in the transportation field should be noted. A new computer checkin facility has been introduced by Indian Airlines at Meenambakkam. This will enable faster completion of the checkin formalities (which has not happened in Bombay and Delhi where it is in use), will help the airlines to maintain better inventory control and provide the passengers the choice seat. To minimise congestion on road and rail routes, the government announces that it will run a ferry service between Madras and Mahabalipuram as a first stage and between Cuddalore and Kanyakumari in the second stage. To combat air pollution, the government has asked the enforcement staff in the Transport Department to check the level of air pollutants emitted by vehicles and initiate appropriate action. The state Pollution Control Board launched a week long campaign, the exhaust smoke from trucks at two entry points to the city. Meenambakkam and Koyambedu, are being checked with sophisticated and precise instruments. This is urgently needed to control

the growing pollution in the state. The Union government, accepting the great harassment caused by the new motor vehicles Act, have made 7 changes in the Act, namely 1) state governments to authorise all MBBS doctors to issue medical certificates to those seeking licenses, 2) the ability to read and write replaces the requirement of the 4th standard pass, 3) the minimum 10th standard qualification for truck drivers carrying hazardous cargo has been dropped, 4) fitness certificate for transport vehicles will be valid initially for 2 years and after will be renewed annually in place of every 6 months, 5) fees for these certificates have been reduced by 50 per cent, 6) shortages of driving schools for transport vehicles to be overcome by suitable steps (what they are is not known, and 7) change in the maximum laden weight of vehicles.

Housing, backward taluks, pay scales and pollution

The State Housing Board has started a survey on the housing and related needs in 31 select nodal places. This will help provide facilities to satellite township. The provision of housing plus adequate education and health facilities in select villages which the survey aims at will slow the rural-urban migration. The Board is constructing 19000 houses at an estimated cost of Rs. 110 crores. The state government issued orders in August declaring 105 taluks in Tamil Nadu as industrially backward for purposes of grant of concessions like power tariff concessions, interest free sales tax loan, deferral of sales tax, state capital subsidy and special subsidy for pioneer industries. Continuing the announcement of new scales of pay dealt with in the last 2 years

the government announced improved pay scales for certain sections, like assistant engineer, forest rangers, and those receiving special and selection grade scales and others covering in all 5 lakh government employees and teachers costing the state Rs. 7 crores a year. All the other persons and family pensions have been raised from Rs. 245 to Rs. 375 and the maximum from Rs. 1000 to Rs. 1200 costing the state Rs. 40 crores a year. The Tamil Nadu Pollution Control Board states that it has taken up a comprehensive and scientific analysis of the Ezhilagham canal pollution problem, caused by some electroplating unit.

National

Plan

It is reported that a full meeting of the Planning Commission will meet in late August - (26 is mentioned) at which the Approach to the VIII Plan is to be approved. The macro economic magnitudes in that paper may be summarised again: i) the rate of growth is to be 6 per cent against the VII Plan average annual rate of growth of 5.4 per cent: ii) ICOR is assumed at 4.15, reduced from 4.30 at the end of the VII Plan: iii) gross savings will increase to 23.3 per cent of GDP from 21.1 per cent in the Seventh Plan: iv) the marginal rate of savings will increase by 39 per cent from the VII Plan's average of 20 per cent (which is unlikely): v) the total investment will be 24.9 per cent of GDP from 23.1 per cent in the Seventh Plan: vi) net capital inflow will be 1.6 per cent of GDP against 2 per cent in the VII Plan: vii) the GDP tax rates will be 18.9

per cent from 17 per cent in the services plan: viii) public consumption will be 13.3 per cent of GDP against 12.1 per cent in the VIII Plan: ix) exports growth will be 11.5 per cent against 7 to 7.15 per cent in the Seventh Plan: and x) the public sector outlay will be Rs. 350,000 crores at 1989-90 prices. To attain these macro economic magnitudes, there is to be a sharper focus on a) further reduction in ICOR: b) larger effort to raise savings in the household and private corporate sector: c) check on the growth in government consumption expenditure: d) better targeting of subsidies and greater financial profitability of public enterprises with a view to phasing government dissavings by 1994-95: e) a substantially higher export effort: and f) maintaining infrastructural growth and efficiency. As noted in earlier issues of the Bulletin, there has been internal discussions in the Planning Commission about the rate of growth, with some opting for a 7 per cent and a lower ICOR at 3.64. But for the moment the debate has been resolved in favour of 6 per cent. What is the effect of all this on the business world? The Planning Commission assures a private sector outlay of Rs. 300,000 crores at 1989-90 prices. The business sector is watching how far these targets are being met. It realises that the high growth rate of the VII Plan was mainly due to the tertiary sector, in particular government administration. This has residual effects on the business sector, which will respond only to activities which will widen the demand for their products. Here there is a choice — an increase in the incomes of the well to do rural and urban will increase the demand for consumer durables as they have done in the VII Plan. A fuller employ-

ment generation by industry and agriculture will increase the demand for wage goods which along with the improvement in the 10 major industries — steel, coal, cement, aluminium, ethylene, polypropylene, HDPE, LDPE, paper and urea which however are not significant for employment generation. The business sector will be influenced on how far our savings target, and investment target are realised without any shortfall. Another constraint that we face in the VIII Plan is population growing at 2.1 per cent and falling to 2.9, 1.8, 1.7 per cent assessed in the VIII Plan, which means that 16-17 million are added to the country's population. In so planning for the eighth plan, the rate of inflation of the VII Plan will decide the real outlay for the VIII Plan and also in light of it, what should be aimed at is not in terms of growth rates but in terms of what will generate employment and provide goods for the mass of the people living in poverty. First, as to the VII Plan, on inflation while

Plan	Nominal outlays	Real outlay in 1970-71 prices
First	1960	4126
Second	4672	11451
Third	8677	177.5 per cent
Fourth	15779	15566
Fifth	39426	35.8 per cent
Sixth	109292	16645 (6.9 %)
Seventh	180,000	22542 (35.4 %)
Eighth Plan	350,000	50226 (122.8 per cent) 53191 (5.9 %) 76104 (43.1 per cent).

Under these circumstances rather than aiming at attaining a given rate of growth in the Eighth Plan, the emphasis in the plan should be as:

a) completion of ongoing projects be-

using RBI and Economic Advisor's data gives the following profile.

Year	WPI	Inflation %
1984-85	338.4	—
1985-86	357.8	5.7
1986-87	376.8	5.3
1987-88	405.4	7.6
1988-89	432.6	6.7
1989-90	459.9	6.3

The VIII Plan proposed public sector outlay of Rs. 350,000 crores (nearly double that of the VII Plan) when scaled down by the above inflation rate becomes Rs. 260,000 crores, an increase of 44.4 per cent over the VII Plan. GNP at constant prices has risen at an annual average of 3.6 per cent between 1950-51 to 1980-81 and 4.7 per cent subsequently. There is no evidence of a positive correlation between Plan outlay and GNP growth just referred to as the table below shows the Plan outlays:

fore embarking on new ones, b) spread of irrigation, HYV seeds, fertiliser and increased cultivated area, c) better performance from the public sector industries and closer monitoring of

private sector to see that they conform to plan priorities, d) reduction of imports of government by linking expenditures to revenue collection, and e) development of infrastructure, notably power to remove bottlenecks to better use of capacity. On particular sectors, the ministry of power has requested an outlay for coal in the Eighth Plan of Rs.13946 crores, the working group on KVIC has recommended an allocation of Rs. 6300 crores for KVIC in the eighth plan, and the allocation to the plan for development of micro-electronic components of Rs. 1000 crores, while standardising the components technology. The departments of rural development and industrial development are to work in a concerted manner at the field and headquarters level to give a boost to rural industrialisation. For the Eighth Plan, the sugarcane target has been set at a 230 million tonnes. This 50 per cent increase over the Seventh Plan of this water intensive crop raises many issues.

Prices and Stock Exchanges

Inflation in July was 1 per cent with the wholesale price index standing at 163.5 on July 29-with the 1981-82 base. Inflation on a point to point basis for the 12 month period was 5.7 per cent. This price increase was due to the rise in the price of salt, sugar, fish, liquor, cycletyres and ceramic tiles. The index for non food articles rose due to higher prices of sunflower seed, raw hides, raw cotton, raw silk, raw skin, rape and mustard seed, linseed, groundnuts, copra, castor seed and paper and paper products. With regard to stock exchanges and security markets, the government decision to liberalise the guidelines for investment under the various equity support schemes

will enable banks and financial institutions to disinvest shares to public through offers for sale provided they adopt objective criteria regarding the shares such as book value, profit earning capacity, existing and future profit and growth potential. The price should be quoted over the counter on stock exchanges and security markets. The contribution of industry held funds such as Mutual Fund of SBI and similar funds by other nationalised banks will be eligible as public offer so that issues in which funds have invested and which otherwise meet the criteria of a minimum level of paid up capital (approach Rs. 3 crores) and public issue (at present Rs. 1.50 crores) will qualify for listing.

Economy

In sharp contrast to the governments estimate of poverty in the country on which the old data from the 38th round of NSS published in the Seventh Plan document in reply to a question in the Rajya Sabha on August 8 that 37.4 per cent of the population were living in poverty in 1983-84, the World Bank has produced an upto date report on India's poverty. The Bank's criteria for measuring poverty is consuming less than 2300 calories in rural areas and 2150 calories in urban areas, which is less than the government of India's estimate of 2400 calories for rural areas. And yet the Bank's finding is that in 1988, 40 per cent of people in India have incomes below the poverty line. Unlike India which has no upto date data, the World Bank study divides

India into 5 regions and shows the state of poverty to further elaborate as those living in poverty and those be-

ing very poor on three dates 1970, 1983 and 1988 set forth in the table below :

(percentage of population)

	Poor			Very Poor		
	1970	1983	1988	1970	1983	1988
South (AP, Karnataka, Kerala & TN)	61	46.2	43.2	29.3	25.8	26.1
East (Bihar, Orissa, WB, Assam)	61.8	57.3	51.3	26.7	29.4	36.7
Central (MP, Rajasthan & UP)	46.9	40.2	37.2	25.9	27.1	27
West (Maharashtra, & Gujarat)	46.1	38.2	34.9	1.2	1.1	1
North west (Punjab, Haryana & UP)	12.6	9.8	8.3	less than 1		

This data throws up disturbing trends, while the North West has overcome poverty and has near wiped out dire poverty (the very poor) and the west follows next with a small and declining population of the very poor, the south records a rapid improvement both in the lesser percentage living in poverty and being very poor, the central and eastern regions where over three fifths of India's poor live and 412 million in population, consumption and wages are low, per capita health and education facilities are even lower, so that the high birth rates, accelerating labour for a growth rate, the future for these states is bleak, with their poverty levels rising further in the future. Against this for this region the Bank proposes production and employment growth and essential improvements in health and education status of the population are needed for which there is need for them to discuss their expenditure which is beyond their financial resources and so involves

more favourable revenue sharing and plan grants. To all this there is undocumented weak rejoinder from the government that the overall poverty percentage for the country is 29 per cent in 1988. The purpose is that with a 5 per cent plus growth rate and record levels of foodgrain output in the Seventh Plan, why is the poverty ratio not falling? The Seventh Plan target was to pull 62 millions out of poverty including 54 million of rural poor. The Union government has no coherent notion about poverty nor a sound methodology. It is not surprising therefore that the Planning Commission has set up an expert commission to review the methodology for determining the poverty ratio, though the immediate (inappropriate) occasion was a challenge to its poverty ratio by Kerala and other states who found that they are negatively affected by the ratio in the computation of their share of the Jawahar Rozgar Yojana and the Ninth Finance

Commission. The government reported to Parliament that land records are not upto date in most states. But it attributes this to lack of resources and only Bihar, Orissa and MP being allocated funds. This is not so given the vast revenue establishments in each state. The reason is the pressure of the landed interests and the lack of a political will. The Lok Sabha on August 10 passed the two constitutional amendment bills (64 th and 65 th)—Panchayati raj and Nagar-palika. They are now being considered by the Rajya Sabha. They provided district level committee to coordinate the plans of panchayat and Nagarpalikas and harmonise them in the district plan besides devolution of power to the Nagar-palikas and other urban local bodies by the state with regard to the preparation of plan for economic development, administration of social justice and for implementation of development schemes. Whether this will lead to planning at the Panchayat district level remains to be seen.

Industry

ICICI in its report for 1987-88 on the state of the corporate sector units assisted by it states that despite 1987-88 recording a deceleration of industrial growth to 7.7 per cent, the financial performance, the growth rate of sales and the rate of gross fixed assets formation of the private corporate sector, increased sales of 417 companies rose by 11.3 per cent, gross profits by 6.3 per cent, gross fixed assets increased by 15 per cent, gross profits rose to 6.3 per cent from the previous years 3.8 per cent. However, this improvement in gross profits was small and resulted in the profit margin falling a little to 9.6 per cent compared to the previous year's 10.1 per cent and the

return on capital employed from 14 per cent to 13.3 per cent. NTC faced with increasing cash losses and shortages of working capital and so has proposed that its debt equity ratio be modified from 1:1 to 4:1. The government has rejected this proposal, its present ratio being 3:1 and government reimbursing its cash losses rising from Rs.124 crores in 1985-86 to Rs. 253 crores this year. NTC has 125 nationalised textile mills with 4.1 million spindles and 60,000 looms accounting for 17 per cent of the spinning and 29 per cent of the weaving capacity of the country. Only 6 mills made profits, over 70 per cent of the spindles are more than 20 years old and 95 per cent of the looms more than 40 years old. NTC estimates that it will need Rs.1000 crores for modernisation but was given only Rs.117 crores by the Planning Commission. A number of studies by ATIRA, SITRA (to be referred to later) have recommended closing loss making unviable mills. The Planning Commission has recently proposed a revival of NTC mills costing Rs.523 crores closing 40 unviable mills and to concentrate on spinning. There is no way out except closures and merging some 41 rice mills with 17 viable units at a cost of Rs. 302.77 crores. This should be given careful consideration. The displaced labour force must be rehabilitated and those nearing retirement given a golden handshake. The 15 managed mills (13 in Bombay and 2 in Kanpur) account for 40 per cent of total net losses. So what is needed is a comprehensive package involving closing of 50 per cent of the mills and merger and modernisation of the rest. The telecommunications commission has decided to standardise its component technology and use the private sector to manufacture the components. Parliament has

adopted the Small Industries Development Bank of India (SDBI) bill as a means of augmenting the flow of funds to the small scale sector, which is much needed. Now the working capital requirement of the sector will be met promptly. Given the growing contribution of the small sector to industrial production, its high share of the total export of 30 per cent, its employment of 101 lakhs in 1986-87, 107 lakhs in 1987-88, while larger scale sector has remained stagnant at 74 lakhs, the RBI report had its outstanding bank credit increased from Rs. 7816 crores to Rs. 10816 crores (38.3 per cent —, while banking lending to the whole priority sector was 34.75 per cent is a manifestation of the inadequacy of bank credit to the small sector. Hence the creation of this new institution of SDBI is a needed complement to the commercial banks, the Small Industries Development Fund was set up in May 1986 and the National Equity Fund Scheme in August 1987. Even more than the volumes, SDBI should simplify and speed the procedures of credit disbursement to the small scale sector. The Ministry of Programme Implementation in its report to Parliament in August states that as on 31 March 1989, 174 out of 314 current prices have been time over runs, pushing up costs by 74 per cent (from Rs.31,567 crores to Rs.5486 crores, with the coal sector accounting for the largest number at 55 followed by power 31. The ministry should turn its attention to the means of preventing these cost overruns.

National Production Front

Steel

SAIL announces that it will broaden its distribution network through

the opening of extension counters, in addition to the existing stock yards and branch sale offices. The extension counters will ensure easy availability of steel materials to consumers in the under developed and economically backward areas. Sales through extension counters will be in terms of the applicable distribution policy. The Vishveswaraya iron and steel plant coming under SAIL is to make special types of steel of strategic importance, using advance technology. The emphasis of the plant will be on production improvements and maximisation of productivity. SAIL also reports that with its increased production of pig iron, despite steel items being more cost effective and value added, in response to the demands of the foundries in Coimbatore and the south, there will be adequate supply of pig iron available. Now the stock yard needs to make space available for stocking the increased quality of pig iron.

Crude

ONGC reports that in the next plan 1990-95 it will be implementing projects worth Rs. 3500 crores carrying all areas in exploration, drilling, production and processing. As the funds are generated by it, its plans are quite firm. It states that the western offshore area will increase its production from the current 20 million tonnes per annum to 27 million tonnes — from non Bombay High like Neelam, Panna, Heera, Ratna, etc. This western offshore integrated development project (WOIDP) has been prepared with a view to providing the desired flexibility to divert gas to the various consumers downstream which will link up the new oil and gas discoveries in western offshore. The committee of

secretaries has promised to ONGC dynamic production plan to increase oil production for the west coast offshore area from the current 21.6 million tonnes to 30 million tonnes by 1994-95. It also reports that it has identified 20 prospects for drilling in the Krishna-Godavari basin which will produce both oil and gas to supplement the main gas producing land based exploration in the Krishna Godavari area. Godavari gas is to be used to develop the area in an integrated manner for supply to gas based fertiliser, power, sponge iron and agro industrial units.

Fertiliser

The question of fertiliser production is bound up with the future of the growing subsidy to industry which was Rs. 500 crores in 1980-81 to Rs. 3000 crores in 1988-89, with its share in total subsidies growing from 12 per cent in 1976-77 to 40 per cent in 1986-87. It is also linked to emotional issue of the growing revenue deficit of the Seventh Plan budgets. The subsidy is not to lower the price to the farmer, because for the large farmer who is the main consumer, fertiliser price and cost is not important in total costs. And so when the fertiliser prices went up in 1976-77 and in 1978-79, fertiliser consumption increased, which in the period after that when fertiliser prices declined, fertiliser consumption also declined. Hence for an increase in fertiliser consumption, and improvement in the efficiency, non price factors are essential. High subsidies are due to high retention prices, which the new units push up. With the introduction of the retention price scheme, fertiliser imports are only supplementing domestic production, but the supplement is important.

Agricultural Production

The south west monsoon this year is regarded by some as the best in the decade but the meteorological department does not support their view. Between June 1 to August 2 1989, rainfall has been excessive to normal in 30 out of 35 subdivision, being deficient in 5. Last year for the same period all the 35 subdivisions received normal or excessive rainfall, hence the decision to increase the 1989-90 target from 175 million tonnes to 185 million tonnes reported in the last issue seems to be somewhat hasty and over optimistic. It involves a kharif output of 102 million tonnes and a rabi output of 83 million tonnes. The kharif output can be realised despite the losses from floods in AP, Assam and Karnataka if there are rains at end September and early October. The additional 7 million tonnes rabi over 1988-89 depends again on levels of moisture and winter rains. The government has issued detailed instruction for controlled releases from the reservoirs for the kharif crop in order to conserve water for the rabi irrigation. The real problem is procurement. The purchase of rice and wheat by FCI and other agencies of the 1988-89 crop is not encouraging. So far 7.64 million tonnes of rice has been secured and 8.83 million tonnes of wheat which might increase to a total of 18 million tonne. But in 1986-87, 19.70 million tonnes were procured and in 1985-86, 20.23 million tonnes when foodgrains production was 150 million tonnes. Why is then these limited procurements in a bountiful year 1988-89? Till now the market prices of rice and wheat have been ruling high and traders and growers seem to be unwilling to dispose

their stocks. If 185 million tonnes are produced, the buffer stock which is now 18 million tonnes must be raised to 20 million tonnes. The Planning Commission has prepared for the eighth plan new economic and policy packages involving rationalisation of taxes on equipment and inputs, streamlining of credit arrangements and delivery systems based on the principles that pricing strategies rather than direct subsidies (which have led to "inefficient production units or with cost distribution not benefiting the farmers will be more effective in providing cheaper inputs to the farmers. It states that "while the general price support policy for various agricultural commodities will continue, more imaginative and effective price policy in respect of oil seeds and pulses is required". A welcome statement is that the institutional setting of Indian agriculture involves not only improved delivery of land augmenting resources like water, seeds and fertilisers, particularly to small farms, improved agro processing and marketing techniques but also land reform. "Redistribution of land to those who till it and security of tenure are important preconditions both for better equity and better productivity". It forecasts a bumper oil seeds output of 20 million tonnes in 1989-90, against 12 million tonnes in 1987-88, 17.8 million tonnes in 1988-89. The country is likely to emerge this year as a major exporter of oil seed cakes and other products.

Foreign Trade

Government informed Parliament in August that for 1988-89 India's trade deficit is estimated at Rs. 7412 crores. The further statement because it is only

2.5 per cent of GNP, it will not have any serious adverse impact on the economy is open to question, as there are multiple effects on inflation, employment and exchange rate involved. It also states that because of the short-fall in the surplus from invisibles (to Rs. 3523.9 crores), the current account deficit for 1987-88 increased to Rs. 6292.6 crores (7.93 per cent) from Rs. 5830.0 crores in 1986-87. The government also reports that for the first quarter 1989-90, April-June, a 39.8 per cent rise in value of exports to Rs. 6039.4 crores and a 21.6 per cent rise in imports to Rs. 7774.9 crores has reduced the trade deficit by 16.3 per cent for the quarter at Rs. 1735.3 crores compared to the 1988-89 first quarter deficit of Rs. 2074.2 crores. For 1989-90 as a whole the export target has been fixed at Rs. 28,025 crores (from Rs. 30,251 crores) and imports to Rs. 33,000 crores (from Rs. 27,693 crores), which would result in a smaller deficit of Rs. 5000 crores compared to the 1988-89 deficit of Rs. 7612 crores referred to above. The thrust areas are textiles, garments and yarn, gem and jewellery, engineering, chemical products, and leather goods. The government announcement of exempting 100 per cent export oriented units from licensing adds to their previous incentives such as permission to see part of the production in the domestic market and removal of various procedural restriction and the local cheques being accepted for service charges and others such as announced at the Open House on July 31 would be important for the attainment of export target of Rs. 28,025 crores, with highest increase targeted for chemicals at 116 per cent, followed by handicrafts at 66.2 per cent and gems and jewellery at 5.15 per cent. The exports

of the 6 EPZs increased from Rs. 333.49 crores in 1987-88 to Rs. 516.52 crores in 1988-89. However the comptroller and auditor general in his report to Parliament on 17 August says that EPZs have made an insignificant contribution to the country's exports, increasing from 2 per cent in 1982-83 to 2.92 per cent in 1987. The Kandla zone led to an outflow of Rs. 597.48 crores in hard currency between 1981-82 and 1986-87, when its net inflow of hard currency was only Rs. 9.56 crores. The commerce ministry has set up two panels chaired by the presidents of Assocham and FICCI to undertake studies of potential export items when global level of efficiency can be achieved. Against the creeping up of the growth rate in imports during April-June 1989-90 from the previous year's first quarter of 17 per cent to the current 21.6 per cent, some relief should be recorded during the year from the 61.3 per cent decline in approval of capital goods during April-May 1989. COPU in its 16th report refers to STC's unimpressive exports achievement, and the small 4 per cent share in total exports it has achieved despite all the incentives and concessions granted. Its exports fell from Rs. 790.11 crores in 1983-84 to Rs. 580.99 crores in 1987-88. It blames decanalization but its record of decanalised exports is dismal. It does not meet its international commitments. It needs a corporate plan with long term goods.

Aid and Loans

The World Bank reports that India has emerged as the Bank's largest borrower at \$18 billion for the Seventh Plan period.

International

Indo-Pakistan trade

Further to the brief report in the last issue of the Bulletin, the India-pakistan trade agreement include chemicals and farm medicals through the private sector. Other product categories included are wood, paper, silk, stainless steel and various non ferrous metals.

GATT

The negotiating group on textiles and clothing set up under Uruguay Round faces a long and difficult period of negotiation, with the developing countries wanting to merge MFA without its restriction with GATT as the monitoring body. MFA expires on July 31, 1991. The European country has tabled its position which establishes the broad-lines of the future framework for international trade in textile and clothing, putting off to the next century the integrating of this trade into GATT. ECCs proposal is a truly disguised version of MFA. It believes that developing countries will accept its position because India and Pakistan are for moderation, Hongkong and South Korea are realistic (a bird in hand etc) and Latin America is not interested. GATT itself is due to terminate the Uruguay round at a 4 day session between November 28-December 1990. At this point of time, it looks as if the developing countries will gain little in the trade negotiations. In fact the time table is such that the countries will have little or no time to evaluate the proposals. They will have no time to prepare their defences and may face a take it or leave it situation.

US Super 301 and Special 301

The United States Trade Act and competitiveness Act 1988 provide in super 301 for US to seek to expand adequate and effective protection of Intellectual Property Rights and on which India along with Brazil and Japan is identified as priority countries following restrictive regimes against the US. India is charged with a) Trade Related Investment Measures (TRIMS) which prohibits and burdens foreign investment and b) placing barriers to trade in service, especially in the insurance sector. These are a part of India's development regime and pro-

gramme. On the other, US is India's premier trading and investment partner with trade turnover being Rs. 4920 crores in 1987-88 (20 per cent of India's exports and being the leading foreign investing country. India cannot compromise on these vital issues but equally it should not place itself in a position where US trade and investment is cut off. India will have to plan its moves with care and use the Uruguay Round of GATT to discuss and negotiate in the multilateral forum on trade related investment and intellectual property rights which are high on the GATT agenda.

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II. Agricultural Development in Tamil Nadu

Paddy & other crops

With good rains in August the farmers find that the surface water stock and soil moisture highly satisfactory, as some of the farmers in Thanjavur district have raised the kuruvai crop over to about a fourth of the normal area that they cover. This year they are at work on the kuruvai crop on 1.25 lakh acres. Most of them have started preparations for the samba paddy crop and have purchased certified paddy seeds along with the needed fertilisers. Some farmers have complained about adulteration, particularly in zinc sulphate, and have asked the government to check the packs that are being sold to them. In all districts, including the rain deficient Tirunelveli and Kanyakumari districts, reservoirs are almost full so that farmers are counting on adequate water for irrigating their

paddy crops. The rains have also been used by farmers to raise the dry land crops of coarse grains — cumbu, varagu and cholam. The groundnut crop is coming up well. The state government's estimate for the year 1989-90 is 60 lakh tonnes of rice, 18 lakh tonnes coarse grains, 5 lakh tonnes pulses and 17 lakh tonnes groundnuts.

Research results

Research reports in August are from TNAU which has established some management technique to enhance nitrogen use efficiency in growing low land rice, from the Nimbkan agricultural research institute in Maharashtra as an indigenous technology package for producing alcohol from sweet sorghum, from the agricultural research station, Kovilpatti on double cropping strategy

in dry land farming, from Kerala agricultural university on a weevil resistant brinjal—SM6-7 that it has developed, from TNAU on combating the various diseases that afflict the robust banana, from ICMF, Nandayal on the cotton hybrid — ICMF HH14 — it has developed, from Kerala university's successful demonstration of countering the red rot disease in sugarcane, from the AP agricultural university on some 14 sound principles for ensuring a good cashew crop, from the agricultural research station, Bhavanisagar on a new technique it has developed for improving increasing groundnut yield, from the Bharathidasan university, Tiruchirapalli on techniques to be used for improving productivity of soya beans, from TNAU on means of improving the shell quality of eggs so that they can withstand the wear and tear of mechanisation, from the college of veterinary science Tirupati on growth promoters in broiler feeding, from CARG, Farah on effective low cost housing for goats that it has devised, from university of agricultural sciences, Mudigari of the means of preventing the jumping lice threat to subabul, from the regional station, Coimbatore on combating the American ball worm attacking cotton, from Krishi Bhavan Kerala on how good water for nutrient management can increase productivity of coconuts, and from the university of agricultural sciences, Bangalore on jasmine cultivation being a means of increasing the income of small and marginal farmers.

Sericulture

Tamil Nadu is developing sericulture at a cost of Rs. 41.77 crores with the aid of the World Bank over a period of 5 years. It is being promoted in 7 districts for extending mulberry culti-

vation over 30,000 acres benefiting 40,000 farmers. It will provide employment in reeling, hoisting etc. to about 1 lakh persons. As a result, during the period silk production in the state will increase from 5.5 lakh kg to 13.26 lakh kg. Banks have been called upon by NABARD to grant farmers loans to develop infrastructural facilities and strengthen cocoon marketing and reeling facilities. This is part of a national programme to produce 9000 tonnes of silk in the next 3 years.

Fishing

FAO has brought to the state the small compact fuel efficient deep water fishing boat SRL 15 which it has developed and is using for demonstrating fishing. The boat can operate upto 100 miles from the shore and raise the value of high value species like tunas, sharks, bill fish and provides comfort to the crew. It is based in Chinna muttom for demonstration fishing in the Gulf of Mannar, in cooperation with the Tamil Nadu Fisheries Department.

Dairy farming

The National Dairy Development Board has released Rs.68 crores to the state under cooperation Flood III on the agreement that cooperative elections will commence in October and be completed by March 1990. A third dairy for Madras and the expansion of the processing capacities of the dairies of Madurai, Erode, Tiruchi, Salem, Thanjavur and Pudukottai are under way as part of Operation Flood III. With the mounting losses due to heavy accumulation of stocks—the stock of milk powder at the federation headquarters and with the various unions

is 5000 tonnes, 2000 tonnes of butter and 500 tonnes of ghee-the Tamil Nadu Milk Producers Federation has directed all the district milk unions to cut back procurement of milk from 13 lakh tonnes a day to 11 lakh tonnes a day from primary societies. In 1988 the federation procured 8 lakh litres a day which has now increased to 13 lakh litres. The cut back will help district unions to reduce their losses but it affects milk producers at the village level who may not be able to find local markets. This is serious.

Coffee

The crash in world coffee prices, following the abrogation of the International Coffee Agreement, has evoked a confused response from India. The government has set the coffee export target for 1989-90 at 1,60,000 tonnes compared to the 1988-89 level of 97,000 tonnes. The higher target will not be achieved and the government should not delude the producers with the myth. The international market prices of the categories in which India's coffee

is classified have declined by 40 per cent, which is more than the decline of other kinds. Meanwhile major producing countries realising that when quotas are reestablished their share of the market will determine their quota are selling their coffee stocks at throw away prices. This means that the per unit realisation of Indian coffee will decline rapidly. This is already happening. Against the 3000 tonnes offered at the Bangalore auction, only 2440 tonnes were sold and the 8 coffee board had to withdraw the rest because the average difference between reserve prices for the auction and the prevailing world prices for the various grades of coffee was Rs.300. Despite the depressed world market conditions, the Coffee Board has had to keep export prices artificially high because it could not allow the minimum reserve to fall below the minimum in release price (MRP) fixed by the union government. The growers want a higher MRP to compensate the decline in their returns. In this situation the minimum reserve price fixed by the Board needs review.

III. Industrial Development in Tamil Nadu

Industrialisation in the state

At a meeting between the government and the industrialists from all over the country in early August, industrialists were invited to establish units, particularly in the consumer sector, in the state. The speedy procedures for decision making, the adequate supply of water and power to the industries and the concessions and incentives

announced to the thrust industries were outlined, reviewed and confirmed. There was a suggestion to establish a government-industrialists task force to identify the kinds of production units suitable for each district, which is being acted upon. There was also agreement that with the 20 per cent cut in HT users, the essential for industries is that power supply should be steady and this was promised.

Salem and ONGC

Salem will double its present 35,000 tonnes from 1991, when the second Sendizmir mill goes into operation. Demand is expected to increase from the present 16,000 tonnes to 62,000 tonnes by 1994-95. With the rapid growth of industry, particularly the automotive industry, the demand for stainless steel is fast increasing. ONGC has set up its first group generating station for handling oil and gas available at the Narimanam fields. The facilities designed to handle 1500 cubic metres of oil and associated gas per day, has been put to industrial use and the load of oil on to road tankers has commenced. The Narimanam structure produces over 500 tonnes of oil and gas per day now and will increase next year. The ONGC set up the facilities in record time of less than a year. The Cauvery basin, having emerged as an 'oil province' in the state and country has set for itself a target of 0.2 million tonnes by the end of 1989-90 and 1.5 million tonnes by the end of the Eighth Plan. ONGC also states that it is preparing a feasibility report on setting up an LPG plant in Tamil Nadu and it is deciding on various parameters of the plant. It has conducted tests on a well at Adiakamanagalam in Cauvery onshore in Thanjavur district. Some more tests are under way.

Sipcot & Elcot

Comparing the growth of production and employment at the SIPCOT complexes at Ranipet and Hosur, those at Cuddalore, Gummudipoondi, Manamadurai, Pudukottai and Tuticorin started 5 years ago are making hardy progress in outstanding investments and gene-

rating employment. Their problems of lack of fire stations, housing, effluent treatment are now being attended to. The units there have also been given an option of having a sales tax holiday or a deferment of the collection for a period of 5 years. ELCOT is setting up a Rs. 30 crores unit to produce soft ferrite needed for colour TV sets. The unit with a capacity of 5000 tonnes is to be located at the SIPCOT complex at Ranipet. At present soft ferrite which counters voltage fluctuations is now imported. The new plant being set up with USSR will have its entire production after meeting Indian requirements of 1500 tonne per annum is to be earmarked for USSR as per the buy back arrangement. ELCOT will contribute 25 per cent and 40 per cent will be from the USSR.

SPIC & Sugarmills and Molasses

SPIC which is doing very well in technology upgradation, sales, projects etc. is discussing with the government (TIDCO) the question of the change of management in accordance with the Union guidelines on the pattern of shareholding in all management of joint sector projects. But this may not be appropriate time for a change in view of SPIC having accepted responsibility to be the co-promoter of the National Aromatics Petrochemicals Corporation (See Vol XIX pp 23,24 & 132). South India Sugar Mills Association has agreed to offer 10 per cent of the monthly free market sugar release at concessional prices to co-operatives and civil supplies retail outlets in the state. The sugar mills will supply this quantity at Rs. 640 per quintal against the market prices of Rs. 765 per quintal. The agreement will be in force from August to November

which will help cooperatives and PDS to sell the sugar to the poor at reduced prices. The government also announced that the state is chalking out a long term scheme for starting chemical industries, using the state's molasses. At present the state had 8 industries manufacturing rectified spirit from molasses.

Private sector companies

Lakshmi Motor Credit, which is the 2 wheeler hire purchase business, reports that it is diversifying into financing of office automation and appliance and consumer durables. It has already ventured into lease financing, portfolio management, bill discounting and is now moving into

financing of high growth consumer durables, especially refrigeration, washing machines and the like. The two year old company has expanded from financing 8300 vehicles in its first year to 15000 vehicles in its second year. MRF reports that its turnover including exports for the first 3 month of the current financial year is Rs. 129 crores. It may not be able to maintain this rhythm because rubber prices at Rs. 27500 a tonne is 50 per cent more than last year, STC has pushed up prices of imported rubber 4 times in the last 11 months and the domestic price of nylon tyre cord has been increased 11 times since 1987. Such frequent and high increase it states has a severe impact on its working the cost in a tyre amount to 70 per cent of its worth cost.

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IV. Education, Science & Health

Educational reforms

The state government announced in August that it is starting 4 schools for the physically handicapped. If voluntary organisations come forward to run the schools, the government will give them initially Rs. 2.5 lakhs for each school and ensure a steady flow of funds from the Union and the state governments. The upward revision of school fees in the last few years has made school education expensive. So long the increased fees are used for the schools and their facilities, the increase in fees paid by those who can afford to seems justified. However there is need for government to ensure that these funds are used to improve facilities,

particularly in institutions where they are deplorable. Further the Parents-Teachers Association can also monitor this financial effort. In an important path making event, Kerala government inaugurated personal accident insurance carrying 59 lakh students in its 1200 schools. At the college level, the government announced in August that it is planning to contain what it calls the "capitation fee menace in professional and other education institutions. This is commercialisation of education and should be stopped. It is not capitation fees that are bad but their misuse. They are paid by the well to do who should pay for their children's education. The state government announces that it will open a forest

college in Jawadhu Hills. It proposes to open 2 new universities in Salem and Tirunelveli. At a state level conference of vice chancellors in Madras decisions were made to improve academic standards and the performance by the students. It was also decided that bright students be identified and be given special training for appearing in competitive examinations. As part of the revised pay scales for university teachers, the government announced the new scales for engineering colleges and University teachers. The MGR Medical University announced that it has drawn up a Rs. 40 crores long term development plan beginning from 1989-90. An evaluation of NPE by a sample survey in Delhi covering 250 secondary school teachers found a) 53.4 per cent of respondents had not read the document nor knew it, b) 42 per cent now read it in part, c) 4.6 per cent read the NPE document and were acquainted into it, d) 27.5 per cent has attended a programme on NPE, e) 11 per cent of teachers felt NPE's impact was 25.50 per cent and f) 2.8 per cent felt its impact was over 75 per cent, 5.5 per cent felt it was below 20 per cent and 83.9 per cent states its impact was nil.

Literacy

UNESCO has called attention to the parlous position of literacy in India in the UN declared International Literacy Year. The Unesco survey of 20 countries of the Asian region shows that India with an illiterate population of 56.5 per cent in the 15 plus age group is better off only in regard to 4 other countries-Pakistan, Afghanistan, Bangladesh and Nepal. India is way behind China, Iran, Indonesia, Malaysia, Sri Lanka and others. India does not figure

even in the last of 12 countries which are expected full literacy latest by 1995. Instead it is in the company of 8 most illiterate countries which may achieve full or high levels of literacy by 2000. It refers to India's overall poor educational effort which is reflected in this high illiteracy state and the slow pace of universalising primary education. The government has launched the National Literacy Mission to make 80 million 15-35 age group persons literate. It is during the 1990 International Literacy year efforts are to help make Kerala and Gujarat wholly literate and make areas of other states Karnataka, West Bengal, Bihar, UP and Maharashtra illiteracy free. It also plans to mobilise 1.8 lakh students and teachers in a mass functional literacy programme.

Open University, INSAT I-B

The Indira Gandhi open university proposed to set up at least one study centre in each district of the country which will make higher study facilities available across the country. The open university has 54,000 students on its roll and is introducing courses in library science, computer technology, health sciences, engineering, fine arts and agricultural sciences. Would the open university help in arrest in the declining standards of higher education? The quality of the learning materials it is issuing and that of its educational software gives some hopes in this matter. ISRO reports that its scientists have been able to extend the life of the satellite I-B which is 6 years old till mid November.

Sciences

The Eighth Plan allocation for national research and development

institutions is likely to be Rs. 10,000 crores. The CSIR budget on R&D will be Rs. 1000 crores and it will mobilise an additional Rs. 700 crores. This Rs. 1200 crores will be spent on 22 thrust areas including new materials, micro electronics for instrumentation, agro chemicals, corrosion prevention, industrial toxicology, low cost buildings and rural technologies. The Union government informed Parliament that it is opening 3 regional sciences centres during 1989-90 at Bhubaneswar, Lucknow, and Guwahati at a cost of Rs. 8 crores. The Tamil Nadu Agricultural University announced that it will revamp its research priorities in different parts of the state to achieve better production results, judicious use of water for irrigation and waste land development. The Tamil Nadu Agricultural University and Bharathidasan University report that they are launching a joint research on cotton and also on prevention of environmental pollution.

Health

India's situation in regard to population decline and development is not

bright. Its crude birth rate has declined from 33.8 in 1982 to 32.3 in 1988 — a decline of 1.5 points in 6 years, the crude death rate is still steadily 11 with no decline over the period. Education measured by literacy rate was 38.23 per cent in the 1981 census, with its being 24.82 per women. Finally the percentage of the poor is a high 40 per cent with no decline. The crude birth rate in the next 12 years will be a decline of 3 to 5 points: the population at the current rate of decline will be 830 million at the next census in 1991 and 960 million in 2000 and if NRR = 1 is not reached in 2000, the population will be 1300 million in 2050. However, if there is rapid fertility and morality decline, the population might be 960 million in 2000. The state government wants as a follow up programme of the Tamil Nadu Integrated Nutrition Project, it should cover the entire state. The programme would ensure maximum community participation in the project to improve its implementation. The government announces that the 4 peripheral hospital at KK Nagar, Tondiarpet, Anna Nagar and Perambur which have been long neglected are to get specialities of ENT and Orthopaedics.

V. Employment and Labour Relations

The union government announced that more funds would be provided under JRY to the areas worst hit by poverty. Under the scheme each panchayat has to spend 15 per cent of the funds for providing employment to SC & ST, 50 per cent of funds have to be spent on wages, atleast one member in each family would be paid the minimum prescribed rate. On

an average a village with 1000 persons would get a minimum of Rs. 95,000. UP gets Rs. 413 crores against Rs. 218 crores under anti-poverty programme, Bihar gets Rs. 300 crores against Rs. 175 crores, MP gets Rs. 204 crores against Rs. 163 crores, Maharashtra Rs. 165 crores against Rs. 99 crores, Rajasthan Rs. 100 crores against Rs. 48

crores, AP Rs. 154 crores against Rs. 94 crores, WB Rs. 172 crores against Rs. 93 crores, Assam Rs. 27 crores against Rs. 29 crores, Tamil Nadu Rs. 138 crores against Rs. 98 crores, Kerala Rs. 52 crores against Rs. 40 crores, West Punjab and Haryana getting a less share because of their prosperity. The government has expressed concern at the growing gap between industrial growth at 8.9 per cent and employment growth at less than 3 per cent. Turning to conditions of work, the state government states it is working on a massive scheme to build a series of housing complexes for industrial workers starting next year with a budget provision of Rs. 200 crores. The July 1989 issue of the Indian Labour Journal in a survey of labour inspection for improving working conditions of agricultural labourers starts with 1981 census data of 64.6 per cent of the total 241.61 million workers being engaged in agriculture where the line between self employment and wage employment is hazy and where agricultural workers are the majority of the unorganised and weaker sections of the workforce. The most important labour law for them is the

1948 Minimum Wages Act, which fixes minimum rate of wages in employment in which labour is vulnerable to exploitation, provides machinery for fixing minimum wages, hours of work, over time pay, rest day etc. In this case state governments which are the appropriate authority follow the second method of fixing wages of publishing draft proposals for the wages instead of the first method of its being done through a committee. In 1986 the labour minister conference recommended review of the minimum wages every 2 years or on rise of 50 points in the CPI. The act provides for enforcing minimum wages and for inspection to ensure that the rates are implemented. In view of the limited number of inspectors and the huge agricultural workforce, other officers, like Revenue, Rural, Panchayat Raj and others are also vested with inspection authority. In light of experience, it is recommended that all schemes provide for payment of interest where there has been short payment, for protecting employees against victimisation or termination when the rates are raised and the jurisdiction of courts over dispute be restored for aggrieved employees.

VI. Other Items

State Planning Commission

There were meetings of the State Planning Commission during the first and third week of August. At the first meeting a report was made by each member on the progress of the task force that he was responsible for. The progress of each seems satisfactory, the

quality of the work good and there seems to be a good chance that all reports except that on Finances will be ready by the end of August. At the second meeting, the progress of each task force was further reviewed. It was agreed that reports of each task force would conform to a certain format, which would facilitate the compilation of the final report on

the Eighth Plan. The task force on education, sports and culture met thrice in August, on first occasion receiving and reviewing the report of each of its 10 groups, on the second occasion presenting to the chairman the revised reports and approaching the format proposed by the chairman and the consolidation of the 10 reports and at the third meeting agreeing to his consolidated report and the budget proposed for each item and on the whole. The task force on Finance met in early August and decided to have it prepared by the member five reports on future finances. At its second meeting after mid August, it reviewed the reports and suggested some changes for arriving at the order of magnitude of the resources likely to be available for the VIII Plan.

IIC

The India International Centre which now completed its monthly panel discussions on perspectives for the VIII Plan, began in August a 3 part series on India's foreign trade. In August the subject was Import Policies and Import substitution. The panelists as well as members were largely in agreement with the phase of liberalising of imports which characterises the present policy. The risks to the economy and the lack of employment generation in that policy was also pointed out.

CDS

The Finance committee, the Executive committee and the Governing Body of the Centre for Development Studies met in mid August in Trivandrum. It reviewed with satisfaction the work of the Centre for 1988-89 and made sug-

gestions for improvements in its research thrust. It also endorsed the Eighth Plan formulation of the Centre, with some modification of the programme thrusts. It reviewed and approved the revised estimate for 1989-90 involving some reductions in expenditure and appeal to the two funding agencies to make up deficit of Rs. 5 lakhs and borrow from the reserve fund for meeting any gaps. The committee also noted the programme of cooperation with UNFPA and its achievements and problems and the procedure for evaluation of staff development by the state.

Literacy Trust

The annual seminar for its 20 project officers from all over India of the Literacy Trust was held in early August. The thrust on this occasion was preparation of the project officers for the International Literacy Year which is to be celebrated in 1990 and the special effort each should make it ensure that one village or one urban slum is made wholly literate.

UNESCO World Jury

The Unesco World Literacy Jury met in Paris in late August. It had before it some 30 submission from governments and international and non governmental. It selected the 4 prize winners for their outstanding achievements and made honourable mention of 10 others.

First Article

The second article dealt with in the Agricultural workshop on Fisheries by Dr. P.J. Sanjeevraj together with the summary of the discussion on the paper of the

seminar on critical issues in Agriculture in Tamilnadu appears as the first article.

Second Article

A note on Tamil Nadu Backward classes by P. Radhakrishnan appears as the second article.

Book Review

A review by Prof. Nirmal Sengupta of the book "Development Planning in Mixed Economies" appears in the Book Review section.

MIDS News

A Workshop on Perspectives for Industrialisation Tamil Nadu during the Eighth Five Year Plan was held at the Institute on 23rd and 24th September as part of the Monthly Seminar Series. The workshop brought together a fair number of administrators and civil servants and a few representatives of Industry associations. The first part of the workshop was devoted to a general over-view of the industrial situation in Tamil Nadu; the subsequent session took up for discussion the position of individual industries, namely leather, chemicals and petro-chemicals, electronics, light engineering and textiles. The concluding part of the workshop was a plenary session which addressed itself to the general issues arising from the discussions in the previous sessions.

Dr. C. T. Kurien attended the National Seminar on Secularism organised by the

Indian Academy of Social Sciences at the Tata Institute of Social Sciences, Bombay held from 25th to 27th September. He chaired the first session and made a presentation during the concluding session on "Reflections on Secularism".

Dr. Paul P. Appasamy attended Indo-French Seminar on "Protection of Water Resources" in Madras held on 27th and 28th September.

Dr. A. Vaidyanathan and Dr. S. Janakaraman attended a seminar on "Management of Groundwater" organised by Tamilnadu Agricultural University and Ford Foundation in Coimbatore from 4th to 6th October.

September Development Seminar

Fisheries in Tamil Nadu

Dr. P. J. Sanjeevraj
Dean of Studies, CRNIEO, Madras

Fish as food is increasingly popular in Tamil Nadu also, despite its rising price. The average annual consumption of fish in the State is said to be coming down from about 8 kgs per head during 1983-84 to 5 kg per capita in 1988-89, compared to the average of 3.2 kg-level of the country. Sustainable development of the fishery resources of the State involving stepping up fish production or harvest and conservation are not as adequately taken care as fish supply and distribution to consumers or importers.

Expenditure on fisheries during each Five Year plan period has always been far more than the allotment, and the expenditure rose from the initial Rs. 31.34 lakhs during the First plan to Rs. 21,73.37 lakhs during the Sixth plan, and finally to more than about Rs. 25,00.00 lakhs during the Seventh plan period. The total outlay for fisheries during the Eighth plan of the State is about Rs. 91,36.00 lakhs, of which the State Government's commitment

may be about Rs. 56, 92.29 lakhs (Tamil Nadu Government, 1989). Adequate provision is made in the Eighth plan for stepping up production through both capture as well as culture-fisheries, from all their diverse ecosystems like the marine, freshwater and brackish-waters, employing the recent advances in biological and technological research development and management strategies.

I. CAPTURE-FISHERIES A. MARINE FISHERIES

Tamil Nadu, with about 1,000 km of coastline, has the third longest coastline among the Indian maritime states. There are now nine maritime districts in the State, the maritime district Tirunelveli now being divided into the V.O. Chidambaram District with 104 km and the Nellore District with 62 km of coastline. Tamil Nadu has a shelf area of about 10,500 km² upto 50m depth, about 24,500 km² upto 100m depth and about 1,65,000 km²

upto the edge of the EEZ. It is a recognised fact that so far only the inshore waters upto a depth of about 50m is the most intensively exploited area, both by traditional as well as by mechanised vessels, chiefly for exportable prawn, abundant in this zone. The total marine landings of the State contribute to about 17 to 19% of the total marine landings of the country, Tamil Nadu being the third in rank.

i) Marine Fishery Depletion

There has been a much alleged depletion of marine fisheries in Tamil Nadu also, but the statistics of the State Fisheries (Tamil Nadu Fisheries, 1988) and of the Central Marine Fisheries Research Institute (Anon. 1986 and 1987) show to the contrary, a steady but low annual increase. In fact, certain species of marine fish like the False Traveller or *Sudumbu* (*Lactarius lactarius*) and the White Pomfret or *Vella Vavval* (*Pampus argentius*) were said to be less frequent in catches in certain years in the recent past, but since they are reappearing in the catches now, and since other species like the Oil Sardine or *Nai chala* or *mathi* (*Sardinella longiceps*) which once was on the West coast alone, has now been occurring on the Tamil Nadu coast also since 1977 (Kuthalingam, 1988), it may be that the suspected depletion of fish is only a cyclical fluctuation in the population of certain species. Moreover, due to over-exploitation of the 50m zone by a larger number of mechanised vessels, the per capita/per catamaran catch for the ever growing population of small-scale fisherman may be comparatively less, and hence this hue and cry of depletion. Persistent drought on land, diminishing river discharge into

the Bay of Bengal strangely seems to bring about changes in coastal current, nutrient, turbidity and temperature patterns, resulting in unpredictable and poor fish catches, as the fisherman complain.

ii) Inshore Fishery Resources

Fisheries resource-research is vital for planned development and management of fisheries (Sivasubramaniam, 1988). Besides the Fishery Survey of India (FSI) and the Integrated Fishery Project, (IFP), the Central Marine Fisheries Research Institute (CMFRI) also, with their vessel *FORV SAGAR SAMPADA* has recently started systematic survey of the 50m zone of the Tamil Nadu and the other coasts and are communicating their results to the State Fisheries for their use. However, it would be more effective if the State Fishery research personnel also are invited on to these survey cruises so that they can focus more on fishery problems rather than on routine and fundamental marine biological problems alone.

Marine fish landings from Tamil Nadu rose from 0.48 lakh tonnes during 1951-52 (First Plan period) to 2.78 lakh tonnes during 1983-89 (Seventh Plan period). The average annual marine fish landings for the years 1977-1983 have been 2.32 lakh tonnes. The potential yield for that period however has been estimated to be about 3.25 lakh tonnes (Alagaraja, 1986; Dharmaraja *et al.*, 1987).

a) Pelagic Fisheries

Clupeoides contribute to 56% of the pelagic fish landings of Tamil Nadu and to 44.7% of the all-India clupeoid landings. Oil Sardine (*Sardinella*

longiceps), appearing for the first time on the Tamil Nadu coast has yielded about 2,986 tonnes in 1985, 6,093 tonnes in 1986 and 1,946 tonnes in 1987, most of the catches being between Cuddalore and Point Calimere. There is evidence even for its possible spawning on the Tamil Nadu Coast (Kuthalingam, 1988).

Tamil Nadu tops the list of Silverbelly producing states in India, with a rise from 16,255 tonnes in 1964 to 20,171 tonnes in 1975, and to 39,912 tonnes in 1984 (Livingstone, 1988).

b) Demersal Fisheries

Demersal Fisheries increase with the latitude and depth on the Tamil Nadu Coast (Sivaprakasam, 1988). The wedge Bank, with a shelf area of about 10,500 Km² and the Gulf of Mannar with a shelf area of about 55,000 Km², have a very high potential for the demersal fishery resources of Tamil Nadu (Mukundan 1988).

In view of the continued lucrative export-trade in prawns, it is the most sought after demersal fishery within the 50m depth zone, all along the coast of Tamil Nadu, with the consequent severe competition between trawler and traditional fisherman. Obviously, there is a significant decline in inshore prawn catches since 1984-85. Also, the massive fishing organised by about 2,500 indigenous craft in the Palk Bay employing *Thallu Valai* (a miniature trawl not without other board), each unit capturing about 2 to 10 kg per day of juveniles (31-100 mm) alone of *penaeus semisulcatus* has been so damaging to sea grasses and to prawns

as to bring about a conspicuous decline in their fishery that this practice has to be banned (Rao, 1988).

It is also disheartening to note that pearl fisheries of ancient repute at Tuticorin has been literally abandoned since 1962, because pearl-oysters have been fast disappearing either because of heavy silting or because of excessive bottom-trawling and the consequent habitat destruction. The poor performance of the joint venture of the SPIC and the Tamil Nadu Fisheries Development Corporation for pearl culture near Krusadai Island needs to be investigated scientifically. Even the chank fisheries of ancient repute also are on the decline in the Gulf of Mannar. Both the chank and pearl fisheries of great commerce and antiquity need to be revived and protected.

Holothurians for (*Beche De-Mer*) of great export potential to Singapore in recent times (James, 1988 and 1989) are receiving good research and development attention in the Gulf of Mannar Cephalopods (Sarvesan, 1988) and lobsters (Radhakrishna, 1988) as exportable food, and sharks, rays and skates for exportable fins and liver oil also need to be given greater attention.

iii) Offshore Fisheries

Sivaprakasam (1988), based on the resource location and catch per unit effort calculations done by the Fishery Survey of India (FSI) says that the offshore fishery potential between 100 to 150m depth, off the Tamil Nadu coast is great and "Deep sea fishing for Tamil Nadu will be technically and financially feasible. However, it depends on building up basic infrastructures for berthing, dry-docking, servicing, storage, transportation and marketing, etc."

It is also regrettable that most deep sea vessels are concentrating on the capture of shrimp alone but instead, if multi-purpose vessels with more than one fishing facility on deck are deployed, including long-lining for tuna, such a diversification of fishing effort would be highly productive. (Gokhale and Shah, 1989).

iv) Remote-Sensing

Remote-sensing is an emerging technology which could be employed for fishery development, through mapping of primary productivity and locating fish shoals so as to transmit the information through radio and telephone to mechanised fishing vessels. It also helps to study the rate of sedimentation at harbours, pollution along the coast, sea-erosion and cyclones etc., related to fishing activities.

v) Craft, Gear and Infrastructure

During 1981-84, mechanised vessels landed on the average 45% and non-mechanised vessels landed the rest of the 55% of the total marine catches on the coast of Tamil Nadu. This proportion varies for each maritime district according to the extent of mechanisation. Pudukottai District landed 93%, Madras District 74%, and Ramanadhapuram 72% through mechanised vessels, but through non-mechanised vessels, Chingleput District landed 100%, Kanyakumari District 92% and South Arcot District landed 79% of the total marine catches.

Addition of any more craft should be judiciously done after assessing the maximum sustainable yields (MSY) and harvestable stocks in inshore waters.

In order to fully realise the maximum harvestable stocks from the 50m depth zone off Tamil Nadu coast, Alagaraja (1988) and Sivaprakasam, (1988), have recommended the addition of about 560 mechanised vessels, but in a phased way, about 200 upto the year 2000A. D. If one launches on to the virgin fishing grounds of the deeper ocean beyond 100m depth, any number of 50-footers with 150 h. p. engines or even larger ones are recommended by several experts. Even joint ventures and chartered foreign vessels for fishing in the Indian territorial waters are recommended and encouraged. So far as the addition of non-mechanised vessels is concerned, instead of addition in numbers addition in effort is recommended, by way of motorisation of the existing country craft. However, in order to fully utilise the growing human resources of small-scale fishermen, every household could be enabled to acquire one craft and one gear at the minimum. Eighth Plan proposals of the Tamil Nadu Department of Fisheries are making provision for a new 'Revolving Fund' for the supply of catamarans and a 'Permanent Fund' for the supply of nets to small-scale fishermen.

Purse-seining on the Tamil Nadu coast is said to have been abandoned since it was found to be ineffectual. On the other hand the so-called 'FAO-net' or the 'Disco-net' (*Mani Valai*) with three layers of webbing, is increasingly popular among fisherman because of its efficiency in catching prawns. Pair-trawling in the Palk Bay has been highly remunerative, but for reasons of the possible over-exploitation, the High Level Standing Expert Committee (HILSEC) of the Tamil Nadu Fisheries Department is recommending the banning of pair-trawling in the Palk Bay. Elsewhere, it may be used, but beyond five nautical

miles from the shoreline. The same Committee has recommended a mesh regulation of not less than 25 mm for all gill-nets. It is relevant at this point to refer to the implementation of the Marine Fishing Regulation Act of Tamil Nadu. The same Committee has recommended a strict enforcement of the limit of three nautical miles from the shoreline for all mechanised vessels. For that purpose, the Department is acquiring about six high-speed patrol boats each one to cover a radius of about 75 km of the coastline (HILSEC, 1989).

The existing fishing harbour at Madras is being improved with more infra-structural facilities by extending the eastern break-water sheltering area by another 150 metres, by the addition of three finger jetties, an auction hall and a packing hall by providing repair and shore services, berthing and other facilities (Madras Port Trust, 1988). Besides the nine existing marine fish landing facilities in the State, two more fishing harbours, one at Chinna Muttom and another at Vallinokkam, one jetty at Thondi and another at Kottaiappattinam are being contemplated.

vi) Coastal and River pollution

Heavy quantities of domestic sewage are being discharged into the coastal waters of Madras, through the rivers Adyar and Cooum, and also industrial effluents are discharged through the Ennore Estuary. Tuticorin is another point of heavy coastal pollution in the State (Pillay, 1988). Although Prasad *et al.*, (1989) and Muthukrishnan (1988) observe a low or even a negligible level of heavy metals in the sea off Tamil Nadu, and accordingly the Task Force of the HILSEC (1989) have conclu-

ded on no significant hazards of marine pollution to coastal life and fisheries. Yet it is regrettable that bio-accumulation of various pollutants in the tissues of marine organisms at various trophic levels has not been systematically investigated by any one so far, so as to educate the public on such important matters. Similarly the radiation levels of seafood, in view of the increasing number of coastal atomic power plants, has to be monitored constantly. Pollution of the rivers Bhavani and Cauvery also is being studied by a special research cell thanks to the efforts of the Pollution Control Board of Tamil Nadu in keeping a constant vigil over the levels of coastal pollution.

vii) Export, Internal Market and production

Tamil Nadu is the third largest marine product exporting State in India, exporting about 18,053 tonnes worth Rs. 68.16 crores during 1986-87 and about 13,361 tonnes worth Rs. 66.19 crores during 1987-88, chiefly from the Madras and the Tuticorin ports, out of an all India total of about 85,843 tonnes worth Rs. 460.67 crores during 1986-87 and about 97,179 tonnes worth Rs. 531.20 crores during 1987-88 (MPEDA, 1988).

If fish production is stepped up through offshore fishing, Sivaprakasam (1988) advises that dependence on export market alone will be risky and that it would be very much essential to develop internal marketing also. According to the survey conducted by the Indian Institute of Management, Ahmedabad during 1980-81, (Srivatsava *et al.*, 1985), the people of Tamil Nadu consume mostly marine fish, about 26,524 tonnes, compared to about 800 tonnes of freshwater fish. Internal

marketing is very well taken care by the Tamil Nadu Fishery Development Corporation (TNFDC) and by private entrepreneurs. Cooperative fish marketing on the lines of dairy marketing in Gujarat, needs to be given the highest priority to do justice for all sectors involved in fishing industry.

Apart from over-fishing and habitat-destruction by bottom trawling nets, coastal pollution has to be monitored constantly in order to sustain or enhance coastal fishery production. Artificial Fish Habitats (AFHs), inclusive of Artificial Reefs (ARs), and Fish Aggregating Devices (FADs), not only help in rehabilitating marine life that is dislodged by mechanised purse-seining and trawling but also provide food and shelter for shoals of fish and habituate them for spawning at these artificial habitats, thus replenishing the coastal fishery stocks. Such low-cost and efficient technologies are increasingly popular among small-scale fishermen on the Tamil Nadu coast and hence the Fisheries Department could launch on to revive this traditional technology that once flourished on the Coromandal coast (Hornell, 1924), and recently revived by Sanjeeva Raj (1989).

viii) Small-scale Fishermen and Participatory Development

Of about 3.96 lakh small-scale fishermen living in 422 villages on the Tamil Nadu coast, nearly 24.37% are active fishermen (Anon. 1986 b). They have a proud heritage from the ancient Sangam Period, of seafaring and pearl-trading with the Mediterranean, but today they are at the verge of bankruptcy and extinction on the very same shores of Tamil Nadu, with the possibility of their proverbial catamaran

becoming an antique of the recent past. Who takes the blame, science, technology and modernisation, or lack of scientific management towards a sustainable development of the resources?

As in agricultural, dairy and poultry revolutions in the post-independence India, collaborative fishery development also is urgently warranted. Fisheries being of rather diverse kinds, the State Department of Fisheries could be the nodal organisation, drawing consultancy services from experts in the diverse fields in the wide variety of Central and International fishery organisations available in the country. Active participation of coastal fishermen, inland fish-farmers, fishery experts and non-governmental organisations (NGOs) interested in fisherfolk's welfare, is the need of the hour, not only to help decision-making but also to cooperate in the management and sustainable development of the fishery resources of the State.

Roy (1986) underscores, "Development to be real, has to be participatory". Kurien (1988) envisages an 'Aquarian Reform' wherein the rights of access to fishing assets are given *exclusively* to active fishermen. This, according to him, would ensure resource sustainability as well as build up equity among all fish-workers. Finding the right blend between the desirable and the possible solutions, seem to be the need of the hour. Aquarian reform without reference to a technology appropriate to the eco-system can prove counter-productive (Kurien, 1986).

In this context, the Central Inland Fisheries Research Institute has set an example for such a collaborative or participatory development involving fish farmers, fishery scientists and State

governments, through their successful programmes like Operation Research Projects, Extension Projects and Krishi Vignana Kendras (KVKs) which could be profitably extended to marine fisheries and mariculture also.

Non-governmental organisations working for technology transfer among small-scale fishermen can be of great help in bringing about such a revolution in marine fishery sector also, as in the case of major-carp farming in India today.

ix) National Marine Park

The recent declaration of the National Marine Park, consisting of 21 islands in the Gulf of Mannar, although may initially preclude small-scale fishing in that area, yet in the long run, it would serve as a repository for the rich diversity of marine life and fisheries native to that area to multiply, radiate and interact with the adjacent ecosystems, and also to serve as rich gene-bank to draw from, in the many generations to come.

B. INLAND (FRESHWATER) FISHERIES

Inland fish production which was at a level of about 0.36 lakh tonnes at the beginning of the First Plan period has steadily grown to a record level of about 1.75 lakh tonnes by 1982-83, but subsequently it has been steadily declining to reach as low a level as 0.82 lakh tonnes during 1988-89. This obviously is due to the persistent and unprecedented drought all over India, for a number of years in succession. Not only that the surface water spread had been minimal but also that ground water-table has been receding further and further down; Streams and river seldom did flow

during these years, and reservoirs and irrigation tanks have been reduced to slushy bogs, due to excessive siltation, overgrowth of water Hyacinth leading to eutrophication, so that fish life of any kind was unthinkable, for all these years of nation-wide drought. Nevertheless, there has been a low but steady output of fish because of selective introduction of mojar-carp. Reservoir fisheries increased from about 305 tonnes during 1963-'64 to about 1,659 tonnes during 1988-'89. Culture-fisheries has been more productive than capture-fisheries, so far as Inland (freshwater) fisheries are concerned.

C. BRACKISHWATER FISHERIES

Brackishwaters are transitional between the sea and freshwaters. Tamil Nadu has about 55,879 hectares of brackish-water areas, mostly at Muthupeta in the Thanjavur District. Pitchavaram in the South Arcot District and Pulicat in the Chingleput District. Brackishwaters are specially ideal for mullets, catfish; mud-crabs and juveniles and sub-adults of panaeid prawns. During the pre-and post-monsoon (Northeast monsoon) heavy catches of immature prawn is landed from these backwaters. Prawn-ranching on these open backwaters, with hatchery-produced seed reared upto juveniles and released into open waters, would have a great potential, provided appropriate fishing regulations, habitat protection and export regulations are taken care.

II. CULTURE FISHERIES : AQUACULTURE

The world has been subsisting amazingly so far only on capture-fisheries, as in the primitive food-gathering ages,

but in view of the increasing pressures for aquatic food resources and the consequent noticeable depletion and short supply of natural stocks through over-exploitation in capture-fishery resources, aquaculture, like agriculture is increasingly being realised as the only hope for not only supplementing and enhancing natural fish stocks but also to manage them sustainably to meet the growing demand for fish food. Aquaculture unfortunately is still more talked of rather than practised, on a commercial scale, as yet. Lots of incentives and concessions, as in agriculture, need to be provided for aquaculture too.

A. MARICULTURE

Sea and brackishwater ranching has great potential for augmenting our seafood resources from semi-open waters, calm bays and from mangrove ecosystem by growing seaweeds (Kaliaperumal, 1988), holothurians for *Beche-De-Mer* (James, 1988, and 1989), *Penaeus semisulcatus* (Rao and Manickam, 1988, and Rao, 1988), chank (Mahadevan, 1988) and pearl-oyster (Chellam, 1988).

Penaeid prawns (*Penaeus Indicus*) have been grown in salt-pans to yield on the average 600 to 1,604 kgs/ha/6 months (Muthu and Manickam, 1988), and Tamil Nadu Fisheries Department has grown White Prawn in dug-out ponds on the Pulicate Lake to yield about 1,400 kgs/ha/Yr, in two crops. Tata Oil Mills Company has earlier grown the same White Prawn at Thangal Village on the Pulicate backwaters to yield about 1,200 kgs/ha/5 months, in one crop itself.

Although the technology for prawn farming is not yet perfected in Tamil

Nadu, the preliminary and scattered results so far, are very promising for commercial ventures. Therefore, the Tamil Nadu Fisheries Department also, along with other maritime states of India, is planning on a massive prawn farming project by leasing out suitable low-lying lands adjacent to brackish-waters to fishermen, small and large entrepreneurs. About 15,000 hectares out of a total of 56,000 hectares of available lands are earmarked for such leasing plan.

The prawn hatchery established at Neelangarai by the Tamil Nadu Fishery Development Corporation is a major breakthrough towards a low-cost hatchery. Particularly, the intake of filtered seawater from a sump at the surf-beaten coast, is a much appreciated innovation serving as a low-cost model to be emulated by all future prawn hatcheries in India. Also, it is a hatchery that is being operated by trained fishermen themselves.

The Hindustan Lever Limited has also established a successful hatchery at Muttukadu for the Tiger Prawn, but it is more on a high-technology level.

B. FRESHWATER AQUACULTURE

So far, as major-carp farming is concerned, India is heading towards a major breakthrough in evolving a high intensive technology, based on quality seed produced by genetic and physiological manipulations, and accelerated growth and high production through high density stocking and formulated feeds with high conversion efficiencies.

Intensive inland fish culture was practised in about 15,625 hectares

during 1988-'89. Fish seed production rose from 66.76 lakh during the Second plan to 2,311.47 lakh during 1988-'89. Fish Farmers Development Agencies (FFDAs) have been functioning successfully in 13 districts of the State, and from 43 hectares of farming during 1976-'77, they have extended it to 4,065.50 hectares, during 1988-'89. Fish production rate also rose from about 0.40 tonnes to 2,244.30 tonnes during the same period and the income from FFDAs was Rs. 177.81 lakhs, during 1988-'89. The highest average production rate was 1,077 kgs/ha/Yr from the Madurai District during 1985-'86 about 1,135 Kgs/ha/Yr, from the Thanjavur District during 1986-'87, about 1,160 kgs/ha/Yr, from the Kanyakumari District during 1987-'88, and about 1,400 kgs/ha/yr, from the South Arcot District during the year 1988-'89. Individual fish farmers however have realised anywhere between 3,000 to 4,000 Kgs/ha/yr. One fish farmer at Padappai obtained a record production of 12,500 kgs/ha/yr, employing semi-intensive culture-technology of phased fertilizing, high density stocking with quality seed and scientific management, using tested feed and water. (Sanjeeva Raj, 1988).

"Golden Fish"

Orion Distilleries near Chingleput have evolved an intensive technology for *Tilapia* culture in distillery effluents. Through inter-specific crosses and monosex culture under intensive farming, they have obtained an attractive colour and a very high production rate of 40 to 50 tonnes or 40 000 to 50,000 kgs/ha/4 months, a very credit-worthy achievement indeed. The School of Biological Sciences of the Madurai Kamaraj University is said to

have evolved still more spectacular breakthroughs in fish farming which may soon be commercialised.

Thus Tamil Nadu is at the threshold of a major 'aquaplosion' or revolution in freshwater fish farming, more than what the Andhra Pradesh fish farmers have achieved around the Kollair Lake. With Chinese-pattern of fish hatcheries getting to be more popular to meet the increasing demand for quality fish seed and with semi-intensive culture techniques perfected, Tamil Nadu is poised for a take-off or a boom in freshwater fish production, however under the greatest constraint, or even a threat of the alarming rate of depletion of freshwater resources themselves in the State.

Eighth Plan proposals of Tamil Nadu envisage to enhance intensive fish culture by another 23,000 hectares. FFDA managed fish farming by another 2,000 hectares, and also initiate about 1,000 hectares of 'farm-ponds'. Correspondingly, the extra seed requirements would be met by enhanced seed production at Bhavanisagar, Manimuthar and also by encouraging private entrepreneurs in fish-seed production.

Farming the Giant Freshwater Prawns of the *Macrobrachium* species would also be so lucrative that Tamil Nadu Fisheries Department proposes to develop a hatchery for them also. Besides this, they wish to experiment with the technology for sewage fisheries, for growing air-breathing fish and for fish farming in distillery effluents. Culture and export as well as internal marketing of aquarium fish also has a great potential.

III. RESEARCH AND DEVELOPMENT

Research in fishery resources, biology, ecology, capture and culture fishery

techniques, and management of fisheries, fishermen and fish farmers are vital for a sustainable development of the fishery resources. The expertise and contribution of the several fishery organisations available in the State should be utilised to the maximum towards achieving an accelerated fishery development in the State.

Fishery Survey of India (FSI) and Integrated Fishery Project (IFP) conduct fishery resource surveys in inshore and offshore waters (BOBP, 1988). The Central Marine Fisheries Research Institute (CMFRI) has also started recently to conduct systematic inshore survey upto the 50 m depth with their *SORV SAGAR SAMPADA* and share such information with the concerned State Fisheries Departments, through periodic workshops.

Reliable fishery data is vital for major policy decisions, and CMFRI has evolved a much appreciated "Standardised Stratified Multi-stage Random Sampling" techniques for computing fishery data which should be adopted by all State fishery departments, for comparison and interpretation.

The Central Institute of Brackish-water Aquaculture (CIBA), the erstwhile Central Inland Fisheries Research Institute (CIFRI) has taken over experimentation with coastal mariculture and extension work. The Centre for Advanced Studies in Marine Biology at Parangipettai, various coastal universities and colleges do contribute to basic biology, ecology and conservation of organisms of fishery relevance, (BOBP, 1988).

The Bay of Bengal Programme (BOBP), aiming chiefly at improving the conditions of small-scale fisherfolk, has evolved some much appreciated models

such as community organization among fisherwomen, non-formal education for fisherflok, fibreglass motorised beach-craft, high-opening bottom trawl, seaweed culture of prawns, all with the participation of small-scale fisherfolk.

The Tamil Nadu Fisheries College at Tuticorin trains fishery graduates and postgraduates whereas the Krishi Vignyana Kendras (KVKs) train active fishermen and fish farmers. Very soon, it should extend to train prawn farmers and hatchery workers also.

The Tamil Nadu Fisheries Development Corporation (TNFDC), established in 1974 has taken over some development activities of the Tamil Nadu Fisheries Department, activities like providing requisite infrastructures for fishing, fish farming, fish processing, storage, marketing, construction of FRP boats, making fish-nets, management of major reservoir fisheries, hatcheries for fish and prawn-seed production, and above all, distribution and sale of fresh fish and fried fish through stalls in the Madras and other major cities in Tamil Nadu.

The High Level Standing Expert Committee (HILSEC) consisting of senior fishery scientists, most of whom have been former FAO fishery consultants, has been constituted by the Tamil Nadu in 1987, to advise the department and the government on policy issues relating to development of the fisheries sector.

The Fisheries Research Council advises the Department on priority areas of fisheries research. With regular Review Meetings recently started in the Department, the performance at higher levels is constantly and efficiently being monitored.

Finally, towards a total development of the fisheries in the State, the role of voluntary or non-government organisations (NGOs) working for the welfare and socio-economic development of small-scale fisherfolk and fish farmers cannot be undermined, because in view of a good rapport they have, they are powerful intermediaries to achieve collaborative fishery development and management through effective people's participation.

However, some lacunae still remain to be planned for, such as a State Fishery Research Laboratory, covering all aspects of fisheries in the State, with the possible affiliation of this laboratory for the Ph.D Degree of the various universities within the State. The fisheries journal is to be revived to cover all fishery research in the State. An aquarium of a much better order than the existing one and a museum for models of fishery craft, gear, fishery specimens and products would also be highly educative to the public.

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Workshop on Critical Issues in Tamil Nadu Agriculture

Paper II : Fisheries in Tamil Nadu

Summary of Discussion

The paper, "Fisheries in Tamil Nadu" by Dr P.J. Sanjeeva Raj was the second in the series to be taken up for discussion in the workshop on "Critical Issues in Tamil Nadu Agriculture". The Chairman of the Workshop, Dr. M.S. Swaminathan, at the outset, observed that fisheries constitute an integral component of the agricultural sector. A discussion of the issues of fisheries in the State at this Workshop was very appropriate and deserved to be given considerable attention by the policy-makers and the project-implementors. Mr. V. Natarajan, the Joint Director of Fisheries, Government of Tamil Nadu was the discussant of the paper. The following were the important highlights and major issues raised by him.

The marine fisheries operations assume special significance in the capture fisheries, given the long coastline of Tamil Nadu. Since the coastal regions are under Government control a judicious and efficient management of them becomes crucial. It was pointed

out that fish-harvesting from marine sources has so far been almost entirely by the capture methods. Hence the scope for development of culture fisheries methods should be effectively explored in the State. In this connection, the success stories of a number of advanced countries were also cited. Another critical issue raised related to the protection of marine ecosystems from the industrial pollution, carried through the river systems. Instances of large - scale pollution leading to depletion and extinction of certain fish species were also discussed.

In addition to the marine source, the inland water and brackish water fisheries potential should be tapped more fully for realising greater fish production. The crucial significance of rainfall, monsoon and temperature in determining the various aspects of fish life was underlined. In the wake of increased use of mechanised trawlers by large-scale fishermen the issues of protection and security of small-scale fishermen were strongly emphasised.

The competition and the consequent conflict of interests of the two groups have aggravated a number of social and economic problems such as employment and income inequalities.

Acquaculture or the culture fisheries should be given due recognition and priority as additional sources for increasing fish production. Like agriculture, aquaculture should be developed by households and organisations which have the necessary inputs and infrastructural facilities. A liberal package of subsidies and incentives should be provided to culture fishermen which would induce people to adopt culture fisheries as an household activity.

The importance of supply, availability and cost reduction of fish-seed and fish-feed was also emphasised. Finally, the functions and services of the Non-Governmental Organisations (N.G.O's), especially in the transfer of technology and protection of small-scale fishermen were identified. In this connection, the Bay of Bengal Programme (BOBP) of the Food and Agriculture Organisation was cited as an example. The need to develop and strengthen proper marketing and transportation network for speedier disposal of fish-products demand top priority as they have remained a long neglected aspect.

Reacting to the comments, the author observed that the competition between trawler-technology and catamaran-technology has considerably distorted the incomes and employment of the small-scale fishermen. The adoption of modern technology should be devised in such a way as to accommodate the interests of the small-scale fishermen. The author also emphasised the need for more efficient utilisation of surface

water. In this connection, he observed that it is deplorable that we hardly utilise about 10% of the rainfall, letting 90% to go into the sea.

After these initial reactions of the author the discussion was thrown open to the general participants. Based on personal experience in fishery projects, one participant observed that in the past 3 years, the newly introduced high opening bottom-trawlers were found to be extensively and effectively used by the small-scale fishermen also. The immediate need for reducing the gap between the technical knowledge of the experts and the fishery practices of the fishermen was also stressed. The non-availability of technical and economic data on the various aspects of fisheries was identified as an important lacuna which needs to be rectified immediately. The provision of such data would also be greatly useful to the potential investors in fisheries. In addition, exploring the technical and financial feasibilities of the off-shore fishing potentialities of Tamil Nadu should also be undertaken. In devising the crafts and gear, small-scale fishermen's accessibility and adaptability should be given top priority. The various aspects of the deplorable working and living conditions of fishermen also attracted considerable discussion. It was pointed out that the programmes of voluntary organisations and Government legislations should be so devised as to ensure greater security and improvement in the living conditions of fishermen.

Another participant suggested that the fish-breeding technologies already developed should be made more popular in the State. It was also pointed out that since 72% of the State's population has been non-vegetarian, Tamil Nadu

readily provides an effective market for the disposal of fish-products. The aspects of transportation and distribution network remain to be accorded high priority. But the prevailing excessive importance to export of fisheries should be reviewed as the per capita consumption and availability of fish has been already very low in the State.

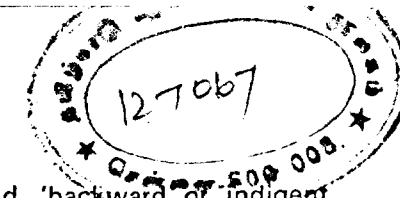
Another observation made related to the large number of tanks in Tamil Nadu which could be converted into a potential source for greater fish production. The utilisation of the tank system could lead to a conflict situation between the storage of water for fish-survival and the release of water for irrigation of crops. This is so, especially when the water availability is at a critical level. A query was also raised whether there is any relationship between the consumption pockets of fish and the spatial distribution of markets and transport facilities in the State, as in the case of Kerala. The feed cost at present, constitute a prohibitive level of 33% in the total cost, which needs to be considerably reduced as an incentive to the culture fishermen.

Frequent droughts, insufficiency of feed production, poor utilisation of run-off water etc., were identified as the severe constraints limiting the optimisation efforts in fisheries production. Future policies and programmes should be devised to rectify these constraints. An increased and extensive adoption of modern boat-technology was suggested as it has greater catch capacity, compared to the catamaran-fishing.

The importance of infrastructural facilities such as cold storage, refrigeration, fish-processing industries etc., was also emphasised. Such priorities would considerably reduce the post-harvest losses from its present high level. The significance of imparting in-service training and welfare-oriented activities to the department personnel was also highlighted.

The Chairman, Dr. M. S. Swaminathan, made the following observations at the conclusion of the Workshop. In addition to tank and river systems, percolation ponds and watersheds hold greater scope for development of inland fisheries in the State. In the marine fisheries, an apportionment of surface planning between the mechanised and the non-mechanised fisheries should be evolved to safeguard the interests of both the groups. The diverse ecosystems of the marine, freshwater and the brackish water fisheries should be carefully protected with a view to preserving the natural habitat of fish species. Policy and planning strategies should be more vigorously implemented for the protection of the small-scale fishermen. They should also focus on the welfare of both the producers and consumers of fish. The package of technology and the package of services in fisheries should aim at a more equitable distribution of fishing-area proportions among the small fishermen, medium fishermen and the large entrepreneurs.

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Tamilnadu Backward Classes*

1 Emergence of Backward Classes

Backward Classes (BCs) is now a generic term applied to three distinct categories of the Indian population, viz., Scheduled Tribes (STs), Scheduled Castes (SCs), and Other Backward Classes (OBCs), who are entitled to the special treatment provisions of the Indian Constitution. Though this term thus assumes meaning and significance in the constitutional context it had begun to evolve more than a century ago. Its emergence and growth were in the context of the British realisation that shaping men of the high castes in the Macaulay mould of Indian in blood and colour, but English in taste, opinions, morals, and intellect, was no longer the only necessary and desirable motivation of its educational policy in India.

Implicit in this realisation was a belated sense of colonial justice, and that probably explains the Court of Directors' consideration, in the Despatch of July 1854, of "how useful and practical knowledge suited to every station in life, might be best conveyed

to the great mass of the people, who are utterly incapable of obtaining any education worthy of the name by their own unaided efforts", a consideration which by their own admission was too much neglected until then. But, more pressing than this sense of justice was an abiding concern for imperial interests: The acrimonious debates on Indian education in both England and India following the mutinies of 1857, the Government of India resolution of August 1871 on Muslim education regretting much that "so large and important a class... should stand aloof from active cooperation" with its educational system, the Government of Madras follow-up resolution of July 1872 reminding that the gradual disappearance of Muslims from the public service was "injurious... to the most vital interests of the Empire", and the special treatment of Muslims in regard to education and employment were all expressions of this concern.

About a decade after this began the saga of BCs in the context of the instruction of the lower strata of society. Soon after the public instruction department was organised during 1855-56

following the Despatch of 1854, it had acknowledged the utter neglect of such instruction. By 1880 it had become more candid about this neglect.

Meanwhile, the Education Commission appointed in 1882, apparently under pressures from missionary-educationists, had dwelt at length on the 'classes requiring special treatment', viz., the 'chiefs and nobles', 'Musalmans', 'aborigines', 'low castes', and the 'poorer classes'. The close nexus between the last three classes and the BCs envisaged by the Constitution is only too obvious: Bulk of the non-Hinduised 'aborigines' are the STs. The 'low castes', used by the Commission as a euphemism for the untouchables, are the SCs. As borderline cases some of the partially Hinduised 'aborigines' are STs and some SCs. While the 'poorer classes' are spread over the entire society, only those comprising its lower strata just above the SCs are ideally the OBCs. For, as the Commission itself contended, instances of great poverty are more among these than among the upper strata. Further, the poverty of the poor among the lower strata is not only economic but also social and cultural, whereas that of the poor among the upper strata is primarily economic.

Though the Commission broadly indicated the classes requiring special treatment, each of them was of an unwieldy and amorphous character comprising several groups of disparate size and socio-cultural background. Therefore, political considerations notwithstanding, governmental efforts to impart education among these heterogeneous ensembles entailed their ad hoc classification into easily identifiable categories. This process was well on the way even before the Commission was appointed. In the Grant-in-aid Code appeared 'poor pupils' and 'poor schools' by 1880, 'backward races'

in 1883, and 'backward or indigent classes' in 1884. BCs proper appeared as a reference to 'aborigines' and 'low castes' in 1884, and to Muslims in 1885, as a synonym for 'backward or indigent classes' in 1886, and often thence before it crystallised in the second decade of this century as categories comprising the numerous bottom groups.

Each of the categories so classified differed from the rest for certain educational concessions and also overlapped with them for certain others depending upon the official perception of it and of its educational needs. Of them backward (or indigent) classes were the most significant. The concessions were mainly freeships and scholarships to the pupils, and higher rates of grants, exemptions from and relaxation of certain conditions of aid and recognition to the schools accommodating them. Of these half-fee was undoubtedly the most attractive.

Though the School-Fee Notification of 1884 had, for the first time, provided for levy of lower rates of fees from pupils of backward or indigent classes, it was enforced only selectively. In 1892 this provision was made general by permitting children of these classes (along with girls, and Muslims and Oriyas already permitted during 1872-73) to pay only half the standard rate of fees in schools under public management. This half-fee concession was extended to them in all professional colleges in 1908 and to Muslims and Oriyas even earlier.

Inclusion in the list of backward (or indigent) classes was on the basis of petitions by caste/community members or their associations, or on recommendations by the DPI or other competent officials. The principal criterion for

* These four pieces were prepared by Dr. P. Radhakrishnan before the DMK ministry made its recent policy pronouncements on reservations.

inclusion was educational backwardness. But in 1913 the education department itself admitted that the list was not drawn scientifically and that communities in it were of every degree of literacy ranging from 1 per mille to over 300. Nevertheless, from this time right upto 1935 the DPI was empowered to add to the list any other similar classes or castes or persons following similar occupations.

With its rapid growth and the rising clamour for inclusion in it the very *raison d'être* of the list was under threat. Anticipating this, in the revised draft fee regulations of 1910 the DPI proposed a 'wealth-limit' clause for restricting the concessions to those pupils whose parents total annual income did not exceed Rs. 500. It was, however, only in 1920 that the government tried to restrict the concessions to the really poor, by requiring the production of a 'poverty certificate' from an authorised officer. But, following complaints of difficulties in procuring the certificate and of real or apprehended discrimination by certifying officers, after about a year production of this certificate was insisted upon only in doubtful cases.

The concessions were strictly applicable only to institutions under public management, and were granted in private institutions at management's discretion and under government's inducements. Nevertheless, it is with these concessions that the scramble for BC status started and the list lengthened like Hanuman's tail: from about eleven entries in 1883 to 39 in 1893 to 46 in 1903 to 122 in 1913 to 131 in 1923 to 182 in 1933 to 238 in 1943 to 270 in 1953, and so on. An important characteristic of the list was that names were often added to it but seldom deleted from it. No doubt, from time

to time the government made abortive attempts to curtail the number of communities in the list so as to reduce its expenditure on concessions. Thus, in 1934 it directed that concessions should not exceed 7.5 per cent of the fee receipts of the institution concerned in the previous year. But this was found unworkable and soon abandoned. In 1940, it removed eight of the communities from the list. But under pressures and pretexts most of them were soon readmitted.

And, threatened by getting swamped by the multitude in such an ever-expanding list, since 1916 the Paraiyas and kindred classes, or the Panchamas alias Adi-Dravidas and Adi-Andhras, as the present SCs are differently known, demanded separation from the list. Under pressures from them and from missionary educationists for continuation of the concessions to these classes even after conversion to Christianity, in 1925 the government split the list into 'Depressed Classes' with 85 communities comprising the Panchamas and the tribals, and 'Castes other than Depressed Classes' with 87 communities.

In 1935, following the Government of India Act, the first list was replaced by a SCs list and the few groups which did not meet the requirement of untouchability for being in it were shifted into the second. That was the state of the BCs categories when the Constitution came into being.

A proper understanding of these lists in their historical and socio-political contexts is crucial for rationalising the present BCs categories. For, it is these lists, and not any other arrived at after proper enumeration, which have been used to fill the three BCs categories envisaged by the Constitution: All the entries in the first list and

bulk of those in the second have been used to fill the SCs and BCs categories respectively, while the few remaining entries in the second list have been used to fill the STs category. As these lists were prepared on an ad hoc basis in the course of the preceding eight decades for mere educational concessions their limitations still persist. More importantly, their adoption for dispensation of the far reaching special treatment provisions of the Constitution has in effect reduced the perception and practice of these provisions to a mere concessionist policy.

2 Emergence of Reservations

Reservation is now understood as dispensation of the special treatment provisions of the Indian Constitution, mainly by setting aside a certain quota of the available educational and employment opportunities for the STs, SCs, and OBCs. But, like the Backward Classes (BCs) its evolution long antedates the Constitution.

Right from the mid-19th century the British administration had attempted to avert the threat of Brahmin disaffection ('Brahmin-phobia') in Madras Presidency by curbing Brahmin monopoly in public services. It is from these attempts that the reservation policy evolved.

Thus, in 1853 the administration discovered that the revenue establishment in Nellore district was controlled by 49 Brahmins, all from the same family. Because of their influence and family connections the Collector was powerless to detect their fraud and wrongs, punish them, and protect the public from their exploitation. Realising this the administration directed him to

transfer elsewhere as many of these Brahmins as possible, and the Board of Revenue (BOR) issued a Standing Order (BSO) to all the Collectors to prevent the monopoly of subordinate appointments in the districts by members of a few influential families, divide the principal appointments in each district among the several castes, have a proportion of the tahsildars in each district from castes other than Brahmin, and appoint, as a standing rule, the two chief revenue servants in the Collector's office from different castes.

In its concern for this Order even after half a century, in 1904 the BOR obtained from Collectors statements showing castes of all employees in superior service in the revenue offices. Finding that the proportion of Brahmins to non-Brahmins was 70 to 30, it directed the Collectors to ensure distribution of appointments more fairly, enhance the number of non-Brahmin deputy tahsildars in certain districts and enforce strictly the standing rule.

In 1911 the administration's scrutiny of the revenue establishment list revealed that in no less than 10 out of the 24 districts the BSO was disregarded. Dismissing the BOR's view that different sects of Brahmins could safely be regarded as different castes, it held that despite rivalries these sects would unite in their opposition to the preferment of men of other, and in their view, lower castes, and reiterated the standing rule.

In the following year, a communication from the Bombay administration disclosed that its 1881 order, almost similar to the BSO, was a dead letter, that Brahmins, who dominated the public services, displayed bitter hostility towards British rule, that there had

been no seditious movement in which they, especially the Chitpavans and Desasthas had not participated, and that it had difficulty in depending on their loyalty. Alarmed by this, the Madras administration collected information on the distribution of appointments among various communities in each department. Finding that the proportion of Brahmins was excessive in certain departments, it again instructed all the departments to abide by the BSO.

All these attempts, however, had little effect on the communal composition of public services. That was only to be expected from the fact that it was mainly the Brahmin community which could then supply the required number of qualified pen-pushers.

The emergence of an educated non-Brahmin professional elite by 1916, which formed the South Indian Liberal Federation (Justice Party), altered this situation. From this time non-Brahmin representation in public services began to assume significance in official meetings and conferences leading to relaxation of age limit for entry into these services and of qualifications for some of the entrance examinations, simplification of some of the entry tests, abolition of some others, and so on.

More important than this, however, was the non-Brahmin movement, formally launched with the issue of a manifesto in December 1916. The manifesto contrasted the high concentration of Brahmins in public services, public bodies, and educational system with their 3 per cent population in the Presidency. Since the non-Brahmin movement is still a familiar story, suffice to say that after the success of the Justice Party in the 1920 election, debates in the newly constituted

Legislative Council were replete with resolutions, questions, and counter-questions on communal representation.

Responding to the demands of the Justices in September 1921 the administration issued a GO extending the BSO to all the departments, called for half-yearly reports from heads of departments, collectors, and district judges on new appointments in permanent services, classifying them into Brahmins non-Brahmins, Indian Christians, Muhammadans, Europeans/Anglo-Indians, and Others, sought the transfer of Brahmins from Fort St. George to moffusils, and stopped their fresh appointments to it under normal circumstances. Stressing that "Brahmins are by their education and training eminently suited for the performance of clerical duties" and that "many of them are undoubtedly excellent material", it sent a 'SOS' to the Government of India for accommodating the 'surplus' Brahmins in central services. In 1924 it constituted a Staff Selection Board for regulating appointments, but the functioning of this Board itself came under attack. In 1925 it appointed a Committee to report on the working of the communal representation system. Although the Committee functioned for three years, it did not submit any report.

Following further pressures from the non-Brahmins, in November 1927, the administration issued another GO. In a unit of twelve appointments this GO allocated five (41.7%) to the non-Brahmin Hindus, two (16.7%) each to Brahmins, Anglo-Indians/Christians, and Muslims, and one (8.3%) to the Depressed Classes (DCs), all in a prescribed roster.

For about the next two decades, the backward Hindus as a broad front and

individual groups within it accused the forward non-Brahmin Hindus of usurping the benefits of this GO and demanded separate representation. There were repeated requests from the DCs for increased representation; from Viswa Brahmins for inclusion in the DCs list; from Vanniyars for separate representation as a BC; and from the Madras Provincial Backward Classes League, founded in 1934 as an umbrella-organisation of the various backward Hindu communities, for separate representation to the backward Hindus. Though for a long time the government refused to alter the communal quotas, in November 1947 it issued a fresh GO slightly enlarging the unit of appointments for increasing the representation of the DCs and accommodating the backward Hindus. In a unit of fourteen appointments in place of the earlier twelve, this GO allocated six (42.9%) to non-Brahmin Hindus (forward), two (14.3%) each to backward Hindus, Brahmins, and Harijans (DCs), and one (7.1%) each to Anglo-Indians/Christians, and Muslims, all again in a prescribed roster.

When the Constitution of India came into being the Government of India called for the abrogation of the Communal GO by pointing out that it did not single out any particular class as a BC of citizens and reserve for that class a certain proportion of appointments or posts, as provided in Article 16(4) of the Constitution.

Meanwhile, a ruling of the Madras High Court in August 1950 that this GO was unconstitutional (later upheld by the Supreme Court) provoked protest demonstrations and agitations. In response to the call of Dravida Kazhagam leader EV Ramaswamy Naicker, 14 August 1950 was observed as Com-

munal GO Day throughout the state, with strike by students, hartal by merchants, mammoth processions (Communal GO Safeguard Processions), and public meetings. Speakers on the occasion condemned the Constitution and demanded its immediate amendment to suit the needs of the South. One of them even deplored that it was drafted by a majority of south Indian Brahmins to their advantage, and demanded its withdrawal.

In the wake of these protests Article 15(4) was soon added to the Constitution through its first amendment, empowering the state to make, notwithstanding the provisions of Articles 15(1) and 29(2), any special provisions for the advancement of the socially and educationally backward class of citizens, or for the SCs and STs. It was following this addition that the present reservation policy was introduced, by a revised order in September 1951, restricting reservation to the SCs, STs, and OBCs. In a unit of twenty appointments in place of the earlier fourteen, this order allocated three (15%) to the SCs and STs, and five (25%) to the OBCs, leaving the rest for open competition by the entire population.

In December 1954, at the instance of the Government of India, reservation for the SCs and STs was increased to sixteen per cent corresponding to their population of 16.4 per cent. Meanwhile, the first BCs Commission appointed in 1953 (Kaka Kalelkar Commission) suggested that in the grant of educational concessions, etc. the 'most backward' communities of its classification be given preference over other communities in the OBCs list. Some of these communities were almost as backward as the SCs though not classified so as they did not meet the

requirement of untouchability for inclusion in the SCs list. Accordingly, in February 1957 the Madras Government declared 58 communities in the OBCs list as most backward. That was the state of the reservation policy before it assumed its present dimension of caste and communal politics.

An understanding of its evolution before its culmination in the constitutional provisions is a prerequisite for discontinuing its use for mere caste and communal apportionment of appointments, and for its streamlining as a mechanism for realising the egalitarian ethos of the Constitution.

3 Population estimates of the backward classes

The vociferous claims and counter-claims of just a few of the communities in Tamil Nadu about their numerical strength give the impression that this 'model state' of family planning is now in the throes of a massive population explosion.

The 1981 Census estimated the state's population at 4.8 crores with the SCs, STs, Muslims, and Christians alone accounting for about 1.5 crores (30%). But if these claims are any indication, the state now has more than two crores Vanniyars, two crores Thevars, 1.5 crores Vellalars, 1.5 crores Kongu Vellala Gounders, more than 75 lakhs Senai Thalaivars, 65 lakhs Kammars, 65 lakhs Muslims, 35 lakhs Reddys, 20 lakhs Arya Vysyas, plus, of course, the population of 300 and odd other communities which have not yet made a parade of their procreative prowess in numerical terms.

If these hyperboles are disconcerting enough, the cause for which they have

been contrived and the means by which it is sought to be consummated must be more so. That is, nestling under the state's much-hackneyed BCs list for cornering more and more of its much-coveted reservation benefits, by agitations, threats, violence and what have you. The hyperboles would recur so long as the clamour for clambering on the BCs band-wagon, or communal politics as hall-mark of Indian democracy, continues. But, a second important cause for the present indulgence in the number game which calls for an explanation straight-away is the absence of any caste census for over half a century now.

Just on the eve of the recent elections, the Tamil Nadu Governor had announced both the acceptance of separate reservations for certain BCs and the postponement of its enforcement to the findings of a survey. Congress I gimmicks notwithstanding, this postponement was attributed to the absence of reliable data on the relative size of the different BCs. Though the DMK ministry has now stopped this survey, want of reliable data still underscores the urgent need for reintroducing caste-based information on population, socio-economic and educational status, and so on in the forthcoming decennial census; more so, when caste has of late become the cardinal idiom for socio-political articulation. The relatively more authentic data so obtained may considerably reduce the futility of having commissions with communal and political overtones, and help in evolving a national reservation policy. In fact, the first all-India BCs Commission (Kaka Kalelkar Commission) of 1953 itself had proposed a caste-census and the Madras Government had then agreed to it, though for some unexplained reasons this census was not conducted.

Even in the absence of such data it is necessary to have a general idea of the relative size of the principal castes, if not for anything else at least for showing how tall their claims are. A proper analysis of the Caste Tables contained in the Censuses of 1891 to 1921 for the predominantly Tamil districts of Madras Presidency (broadly corresponding to the present Tamil Nadu) should serve this purpose.

Such analysis undertaken for a larger study of the Politics of Reservations in Tamil Nadu reveals that the percentage of the principal castes in the total population of the predominantly Tamil districts of Madras Presidency did not vary much during the decades 1891-1921. So much so that, and given the demographic trends it is only to be

expected that the average percentage of these castes in the total population of the four decades would have remained more or less unchanged during the subsequent decades as well. Stated differently, despite fluctuations in absolute or numerical terms, the percentage of the principal castes in the total population in any of the subsequent decades would have remained almost the same as their average percentage in the total for the decades 1891-1921. With this assumption the average percentages of 1891-1921 are converted into numbers for 1981, based on the total population available in the Census of that year, and for 1988, based on the total population projected from the totals of 1961 to 1981. Following break-up is the outcome :

Caste	Average %	1981 (in lakhs)	1988
Brahmins	2.5	12.3	14.8
Higher Agriculturists	16.4	79.5	95.4
Trading Castes	6.0	29.0	34.9
Lower Agriculturists	21.5	104.3	125.1
Artisans	6.0	29.2	35.1
Distillers	3.1	15.2	18.2
Earth-Workers (Odde)	1.3	6.4	7.7
Fishermen (Sembadavar)	0.4	1.7	2.0
Pastoral Castes	4.5	22.0	26.4
Service Castes	2.8	13.6	16.3
Depressed Classes	22.0	106.4	127.7
Unclassified	5.3	25.4	30.5
Total Hindu population	91.8	444.9	534.1

Comparison of the projections for 1981 with the Census figures of the same year available for the SCs reveals that the correspondence is one to one (88 lakhs as both estimated and actual). If these projections are thus any indication, the actual population of the principal castes is not even half of what they have claimed. This is evident from the following population break-up of the principal castes, expressed in lakhs during the years 1981 and 1988 respectively:

Vellalars, Kamma, Kapu/Reddy (Higher Agriculturists): 58, 7, 9; and 70, 8, 10; Vanniyars, Thevars, (Agamudayar-Kallar-Maravar combine), Muthurajas (Lower Agriculturists): 60, 27, 9; and 72, 32, 10; Weavers (Devangar, Kaikolar, Patnulkar) Smiths (Kammalar): 13 each and 16 each; Kulalas (potters): 3 and 4; Nadars (bulk of the Distillers): 15 and 18; Yadavas (bulk of the pastoral Castes): 17 and 20; Maruthuvar (Barbers). Vannar (Washermen) (bulk of the Service Castes): 5 each and 6 each. Castes like Senai Thalaivars do not even figure in the data because of their numerical insignificance: Senai Thalaivars were only 0.0% in 1891, and 0.2% in 1901, and did not figure in the subsequent Census Tables.

From a socio-cultural perspective most of the castes comprising the Lower Agriculturists, Artisans, Distillers, Earth-Workers, Fishermen, Pastoral and Service Castes, and Depressed Classes (present SCs / STs) are socially backward; more so if caste-ranking is the deciding factor. They account for about 62% of the total population. Of them what proportion forms the BCs is still a moot-issue.

In 1956 the Census Department estimated the BCs population in the whole of Madras Presidency at 34.3%, and

the SCs/STs population at 16.4%. In 1984-85 the Ambasankar Commission (second Tamil Nadu BCs Commission) estimated the BCs population in the whole of Tamil Nadu at 67%. According to the projections made here the 201 communities now existing in the BCs list of Tamil Nadu account for about 55% of the total population. Of them the principal castes are Vanniyars (12%), Thevars (6%), Yadavas (4%), Weavers, Kammalars, Nadars (3% each), Muthurajas (2%), Kulalas, Maruthuvars and Vannars (1% each). These few castes alone account for about 36% of the total population, 54% of the BCs population estimated by the Ambasankar Commission, and 65% of the BCs population according to the projections made here.

Of the 201 communities now listed as BCs, 39 are also MBCs (Most Backward Classes) for purposes of educational concessions. They account for about 24% of the total population, 36% of the BCs population of the Ambasankar Commission estimate, and 44% of the BCs population according to the projections made here. Of them the principal castes are Vanniyars (12%), Kulalas, Maruthuvars, and Vannars (1% each). They account for about 15% of the total population, and 63% of the total population of the MBCs.

Though the Tamil Nadu Government has ordered 50% reservations (in addition to the 18% for SCs/STs) for the 201 communities classified by it as BCs (including the 39 MBCs), it will be erroneous to consider all these communities as BCs merely because they are all in the BCs list. For, unlike the SCs/STs some of them are forward communities which were included in the BCs list for political reasons, and though many of them have an upper crust not

in need of any concessions, all of them avail of the BCs concessions because of the absence of any limiting clause of income and educational level. Assuming that all these communities are socially backward, it is important to ascertain whether all of them are *also* educationally backward at the community level so as to be labelled as BCs in the constitutional sense. Assuming further that all of them are both socially *and* educationally backward at the community level, it is important to ascertain what proportion of each of them is so backward. Ideally the BCs concessions should be confined to this specific stratum of the so-called BCs, and the factor determining the percentage of reservations for the BCs should be the percentage of this stratum in the total population. Failure to grapple with these realities sums up the crux of the problem of BCs and reservations.

4 Politics of backward classes and reservations

One of the crucial issues which the recently formed DMK ministry in Tamil Nadu has to settle judiciously is reservations for the BCs.

The Vanniyar Sangam, the most aggrieved of all the caste organisations in the state, has been struggling for over a year now for reservation of 20% jobs and educational admissions in the state and 2% jobs in the centre for the Vanniyars. Less ingenuous are the demands of some of the supposedly 'forward' castes: of the Federation of Vellalar Associations for 35% and 5% reservations (in the state and centre respectively) for the Vellalars; of the Thuluva Vellalar Sangam for 30% and 3% for the Thuluva Vellalars; of the Kongu Vellala Gounder Peravai (Federa-

tion) for 25% and 2.5% for the Kongu-Vellala Gounders; of the Vysya Mahasabha for 10% and 1% for the Arya Vysyas; of the Kamma Mahajana Sangam for 15% (in the state alone) for the Kammars; and of the Reddy Welfare Association for an appropriate percentage for all the 24 Reddy subsects depending on the government's assessment of their number. Among the runners-up for exclusive reservations in the state alone are the Thevar Peravai for 30% (alongwith ST status) for the Thevars or the Agamudayar-Kallar-Maravar combine of castes; the Mutharayar Sangam for 25% for the Mutharayars; the Nadar Mahajana Sangam for 20% (alongwith SC benefits) for the Nadars; and the Yadava Mahasabha for 10% for the Yadavas.

Of the remaining communities the Senai Thalaivars, now in the BCs list, have demanded inclusion in the MBC's (Most Backward Classes) list. The Reddys have also made a similar demand with respect to three of their subsects. The Tamil Nadu Christian United Party, formally launched in last October, and the Christian Communities Federation have demanded inclusion of the Dalit Christians (now in the BCs list) in the SCs list, while the Ambedkar Makkal Iyakkam (People's Movement) has demanded doubling the present 18% reservations for the SCs/STs. The loner in the crowd is predictably the Tamil Nadu Brahmins Association. It has been clamouring for the discontinuation of the reservation policy after 1990, for the use of only economic criterion during its continuation, for limiting the total reservations in the state to 50%, and for declaring the rest as 'merit quota' exclusively for those not covered by the reservation scheme.

These claims and the caste and communal idiom of their articulation point to a dismal scenario of the resurgence of caste and communal cleavages and politics. They have to be understood in the context of the dilution and distortion of the BCs categories resulting in the lengthening of the BCs list from 141 entries in 1973 to as many as 201 in 1985, and of the politics of reservations in the state.

In fact, during the debate over the first Constitutional amendment, empowering the state to make special provisions for the advancement of the BCs, considerable concern was expressed about the actual implementation of the provision and Jawaharlal Nehru himself had assured the House that the Madras Chief Minister had given an unqualified undertaking that his government would not use the provision for people other than the BCs. But the subsequent events have more than vindicated this concern.

In this sense there is much truth in the Vanniyar Sangam President Dr. S. Ramadoss's grievance that successive governments have included many undeserving communities in the BCs list which are grabbing the reservation quotas leaving practically nothing for the really backward; though his Sangam's failure to evolve a broad front of all the really backward communities and to avoid their alienation from it, especially of the Harijans, the Vanniyars counterparts in poverty and backwardness but contenders in the reservation scheme, seems to have been a tactical blunder.

In its report submitted in 1970, the first Tamil Nadu BCs Commission (headed by AN Sattanathan), constituted by the DMK ministry, had observed that in the late 1960s, just nine out

of the numerous BCs accounting for only about 11% of the total BCs population, had cornered much of the benefits available to the entire BCs population. That is, 37% of the non-gazetted and 48% of the gazetted posts, 44% of the engineering and 47% of the medical college seats, and 34% of the scholarships. To prevent this 'creaming effect' it prescribed an income limit of Rs. 9000 on BC families for eligibility to BCs concessions.

Following its recommendations, in 1971 the DMK ministry enhanced the BCs reservations from 25% to 31% (against the recommended 33%) and the SCs/STs reservations to 18% (against the recommended continuation of the existing 16%). However, it did not prescribe the income limit.

As though a belated attempt, in July 1979 the MG Ramachandran led AIADMK ministry issued a GO prescribing the income limit. Political considerations notwithstanding, proper implementation of this GO would have restricted the BCs benefits to the really backward and deserving among the BCs and prevented these benefits from becoming a vested interest.

But just about six months later Mr. Ramachandran dashed all these hopes. There were widespread protests against this GO, and agitations demanding its immediate withdrawal, particularly the DMK's threat of a three-stage stir. Following these and his party's defeat in the January 1980 Lok Sabha elections, on 24 January 1980 just on the eve of the dismissal of his ministry, Mr. Ramachandran not only withdrew this GO, but outwitting all his adversaries, also enhanced the reservations from 31% to 50%.

His (mis)deeds did not set the state on fire, thanks to its long history of reservations, and the clamour of every conceivable social unit in the state for nestling into the BCs. However, a batch of writ petitions filed by two students who failed to get admission into engineering and medical colleges, an aggrieved state government employee, and the management of a private educational institution which was compelled to implement the new measures, challenged the Constitutional validity of the two GOs of 1 February 1980 giving effect to the two MGR announcements of 24 January 1980. The petitioners contended that the reservation of 68% was excessive, that the categorisation of BCs was based on caste and political considerations, and not on socio-economic and educational backwardness, and that withdrawal of the income criterion was arbitrary.

While disposing of these petitions on 15 October 1982, the Supreme Court directed the Tamil Nadu Government to appoint a Commission within two months. Though the MGR ministry accordingly constituted, on 13 December 1982, the second Tamil Nadu BCs Commission (headed by JA Ambasankar), its overriding anxiety to associate with the Commission as many shades of politicians as it could possibly find within the state betrayed its political considerations. At the time of its constitution itself the Commission had as many as 13 members. The number soon shot up to 21. Added to this was the clamour of the different groups to clamber on the BCs bandwagon. As early as November 1983, that is, by the time the Commission concluded its recording of evidence, as many as twenty communities belonging to the 'forward class' had sought inclusion in the BCs list, as many as seventeen, already in the BCs list, had sought

inclusion in the MBCs list, and at least six, again already in the BCs list, had sought inclusion in the SCs list, while some others had sought inclusion in the STs list.

Though the Commission submitted its report in February 1985, its recommendations were unpalatable to the MGR ministry. Consequently, despite repeated requests it refused to table it in the assembly, leave alone allow a free and frank debate on it. However, through a series of GOs issued on 30 July 1985 it made selective use of the report. These GOs contain the ministry's orders to continue the existing 50% reservations for the BCs (in addition to the 18% for SCs/STs), considering the Commission's estimate of the BCs population at 67%, and the recommendation of the 'majority report' of the dissenters; to newly add 29 communities without at the same time deleting any of the 24 communities recommended for deletion; and to continue the existing list of 39 MBCs.

It is in the light of this kind of politicisation and abuse of the reservation policy, that the present clamour for exclusive reservations has to be understood.

The Vanniyars week-long road-block agitation in September 1987 backing the Vanniyar Sangam's claims for exclusive reservations led to considerable violence, deaths, destruction, and atrocities on Harijans. This, and the Vanniyar Sangam's subsequent 'ban' on political parties hoisting party flags or holding meetings in the Vanniyar-belt of the northern districts and the threats of poll-boycott gave an alibi to the Congress-I to postpone the elections to the state assembly and by implication also its most likely defeat.

When the elections were eventually announced, in the absence of any satisfactory solution to their demand the Vanniyars were again on the war-path with threats of agitations and poll-boycott.

Partly in response to the pressures from the Vanniyars, but mainly as a Congress - I gimmick, on the eve of the recent elections the Tamil Nadu Governor announced both the acceptance of separate reservations for certain BCs and postponement of its enforcement to the findings of a survey on the BCs population and backwardness. But, if the government could not find the relevant information in the massive survey of the Ambasankar Commission which worked for over two years with

virtually the entire state machinery at its disposal, it is doubtful if a time-bound survey (in just nine months) by a bureaucrat would have worked the wonder. Incidentally the survey was to be conducted by a special officer, Mr PV. Venkatakrishnan, Special Commissioner and Commissioner for Land Reforms.

Now that the DMK is back in the saddle firmly, as a first step for rationalising the reservation policy it should immediately release the Ambasankar Commission report, and subject it to a thorough debate and judicial scrutiny. Its latest announcement stopping the survey ordered by the Governor is presumably a prelude to this exercise.

Book Review

A RICH COLLECTION OF EXPERIENCES

Development Planning in Mixed Economies : Miguel Urrutia and Setsuko Yukawa ed. The United Nations University, 1988, Hong Kong, pp. 359, price not mentioned.

Before World War II, economic planning was considered a specific characteristic of socialist countries. It is in the post-war period that development planning has become widely accepted as the means of accelerating economic growth and raising the standards of living of people even in countries with market economies. Different groups of countries adopted this exercise for different reasons. The need for reconstruction of the war-torn economy prompted some of the industrialised countries adopt this process. The less developed countries, the ones which had attained political independence after the war as well as the others which were independent since long — accepted the process hoping to attain economic independence. Some of the eastern block countries joined the rank by introducing market elements within their original socialist economic planning. By now, more than a hundred countries have embraced this kind of exercise, of combining planned developments with market

regulations. Most of them have at least three decades of rich experience. And yet, no one can confidently suggest what really is meant by planning in mixed economies. There are fanciful models. But actual exercises resemble them little, nor are the models capable of comprehending the great paraphranelia that accompany the concrete exercises. The present volume is a welcome addition in this perspective, for, it starts with concrete cases and attempts to decipher from the reality, what development planning in mixed economies actually mean.

The book contains seven case details of planning in mixed economies : Sri Lanka and Malaysia ; Colombia, Kenya and Nigeria as the representatives of less-developed countries, along with Japan and Hungary for the two other kinds of mixed economy. The experiences are then reviewed by the two editors in two separate articles set at the beginning of the book. In the first summary

Urrutia outlines the cross-country similarities in the structure of development plans and their gradual evolution over time from mere public investment with long-term objective to more pragmatic short-term and policy-oriented planning. Yukawa's summary may qualify for being one of the content of planning. It is a valuable summary and goes beyond the case experiences included in the book since Yukawa also evaluates critically the standard planning models like that of Lewis or Hirschman. However, she has failed to appropriate the more general mixed economic structure introduced by Urrutia and her summary pertains only to the developing countries. In addition, the Preface summarises the salient features of planning in each of the seven countries studied.

At the end of his summary Urrutia cautiously, but correctly, points out that "The above is an imperfect summary" and that "Other conclusions can be drawn from the case studies. Indeed, it is, but the deficiencies must not be accredited solely to the team of researchers. Gone are those happy days for students of planning when a single model like that of Soviet Russia would inspire all the rest and help easy comprehension. Gone are the early days of mixed economic planning when there were accepted general models still available. Since then, each country has developed its own special case by responding to specific needs like post-war reconstruction, political uncertainty, size of domestic markets, external dependence, ethnic problems, windfall gains or planned transition from non-market centralised economic structure. Their political and administrative structures have been widely different, imaginations have been influenced by subjective factors and differing effecti-

veness of plans have left no room for generalisation. From within this bewildering varieties of experiences one does not know what is meant by planning (in mixed economies) today. Students are taught some fancy models which are rarely in actual use anywhere. More conversant ones can talk authoritatively of details of one or two country experiences. Experts regard the prescriptions made by international donor agencies as the current planning methods while the planners in their respective countries consider them "documents produced for their own sake" (p 3). In this situation a study that assigns greater importance to the realities over the unsubstantiable generalisations is undoubtedly, set in the right direction. The collection forcefully establishes that development planning is just as much a national process with country-specific characteristics as an international phenomenon.

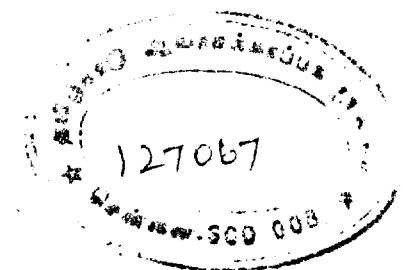
For example, in Malaysia "In 1970, foreigners owned 63 per cent of the nation's entire corporate wealth, leaving the residuals to the locals. Of the latter proportion, the Bumiputras ("sons of the soil") laid claim to a miniscule 2.4 per cent". (p. 114). No wonder that development Plan in Malaysia had set an objective that within twenty years 30 per cent of all commercial and industrial enterprises must be Bumiputra-owned, and has been partly successful in achieving the target. In some aspects the Nigerian case reads like a fairy-tale with upward revision of original plan budget by about sixty per cent following the oil-price explosion (p. 239). There was a time in Nigeria when they could learn of foreign exchange bottleneck only from others' experiences. "It may be recalled that the developing countries of the world

have, for decades, been facing problems of foreign exchange reserves, especially those with which to purchase equipment and employ technical skills from abroad for the execution of development projects." (p. 241). On the other hand, "A look at the series of development plans in Kenya is tantamount to reviewing the recent history of the problems of underdevelopment and poverty" (p. 207). There, the changes in global perception, from "growth and trickle down" approach to "growth with distribution", "basic needs" and finally "structural change" have been faithfully incorporated in each contemporary planning exercises. The Colombian Plans too reflect tremendous influence cast by the foreign donor agencies. The Sri Lankan planning has been characterised as 'Planning in Uncertainty'. Its sterling achievement is in the field of social welfare — in health, education and housing.

There is some semblance of a common format in all the case studies. Strict adherence to a format developed more carefully would have greatly improved the comparability of the case studies. Some of the authors have included detailed description of planning organisations, tools and techniques of planning. But some others have not. Imaginative inclusion of Japan and Hungary in the comparative framework opens up new vistas for planning which were not available within the experiences of the developing countries. In both the countries the challenges were that of institutional re-organisation, although for attaining totally different objec-

tives. Already with several decades of experiences behind them, developing countries may soon arrive at stages where they may face the same task, one of reorganising the well-established administration. Four out of the five developing countries were British colonies. It is an unfortunate choice, and one does not know whether such a common heritage has anyway, influenced their planning processes to relative uniformity. The commonness of the inherited civil system, common intellectual background of the English speaking world and the possibility of closer exchanges between the Commonwealth countries suggest that such uniformity cannot be ruled out, while the greatly different depiction of the Colombian experience from the rest four may even confirm this hunch. Another serious weakness is the unequal length of the articles. One third of the volume is taken away by the two case studies of the Asian developing countries — Sri Lanka and Malaysia. Certainly, both the articles are highly informative and of high quality. But by importance their planning processes do not merit anyway over the others. It is only a reflection of the south and south-east Asian countries' fascination for planning since the 'thirties whereby they have produced more of well-written documents than records of success. The book has not been provided with an Index. This is a serious omissions since, a reader undertaking a truly comparative study would have been immensely helped by that.

Nirmal Sengupta



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