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# EDITORIAL—SOME HIGHLIGHTS

## I General Economic Scene

### State:

*Fourth Annual Plan:* The Fourth Year Annual Plan for the State was finalised in January at Rs. 260 crores as compared to Rs. 213.20 crores for 1976-77 (being an increase of Rs. 16 crores over the report in Vol VI p 189) and Rs. 186.26 crores in 1975-76 (being an increase of Rs. 74 crores over that reported in Vol V p 195). This means that the Fourth Year Plan outlay is increased by some 30 per cent over that of 1976-77 and the per capita outlay which was a low Rs. 35 in 1975-76 is increased for the Fourth Annual Plan to Rs. 63. The outlay on power is Rs. 95 crores to complete Tuticorin speedily and keep up the progress in Pandiyar-Punnampuzha, that on agriculture and allied services Rs. 26.73 crores, co-operation Rs. 1.88 crores, irrigation Rs. 26.22 crores, industry and minerals Rs. 12.81 crores, transport and communications Rs. 23.59 crores, and social and community services Rs. 72.30 crores. The sectors of irrigation, power and social services have thus considerably increased outlays compared to that of the previous year. To keep up with the increased power demand by agriculture

and manufacturing industry, the State is pressing for early approval of the third unit in Tuticorin and the second mine cut in Neyveli. In the social services sectors, slum improvement in Madras, Tiruchirappalli, Madurai and Coimbatore will by November 1978 ensure basic amenities such as sanitation, water supply, street lighting and roads in all the slums, house-sites for scheduled castes and tribes, and safe and adequate rural drinking water. In education, provision is made for the change over to 10+2+3 by March 1978. The government computes that 55 per cent of the total outlay will be on the New Economic (20 point) Programme. For the Fifth Plan, the total outlay will be Rs. 1,122.32 crores. As expenditure in 1974-75 were Rs. 141.39 crores, in 1975-76 Rs. 186.26 and that for the third year an anticipated Rs. 217.20 crores, the Fourth and Fifth Annual Plans (1977-79) will have Rs. 595.18 crores. Some of the slack in plan outlay in the first two years is thus being to an extent made up in the last two years.

*Flood Relief and Prices:* The Union government has allotted a sum of Rs. 3.05 crores as advance Plan assistance to

meet the expenditure on the flood rehabilitation work in Madras city and its environs (see last issue p 74). This sum includes restoration of irrigation Rs. 60 lakhs, of ground water installations Rs. 25 lakhs, of road restoration Rs. 15 lakhs, of Tamil Nadu Housing Board properties repair Rs. 40 lakhs, repair of damage of slum clearance properties Rs. 20 lakhs and resettlement of slum families living in vulnerable areas Rs. 60 lakhs. The repair of the flood damage, and the rehabilitation of those who lost their property and the long term programme to guard against such catastrophes in future are now well under way. The general price front in the State has been moving upward as in the rest of the country. In the case of edible oils which records the sharpest price rise, the first consignment of 250 tonnes of groundnut oil from Gujarat arrived in the State in January as part of the 2,500 tonnes purchased from that State by the Tamil Nadu Civil Supplies Corporation in an effort to bring down prices of edible oil. Another 1,000 tonnes are expected by the end of January. It is expected that the price of groundnut oil of Rs. 9.50 per kg. will now begin to decline. In order to keep the price of rice stable at Rs. 1.60 - Rs. 1.70 per kg. for good varieties and Rs. 1.90 for fine variety, the rules for the purchase and sale of paddy were liberalised. Wholesalers were permitted to import rice from Andhra Pradesh and Karnataka and supply wholesalers in other districts and retailers within the district. Also to ensure availability of essential goods at controlled prices, 350 co-operative societies are being started in Tiruchirappalli, Thanjavur, Madurai, Ramanathapuram and Coimbatore districts with the Union government assistance of Rs. 12.92 lakhs. A common kitchen centre at the cost of Rs. 20,000 has been started in

Thyagaraja Engineering College, Madurai to feed day scholars in the area. Similarly centres are planned at Usilampatti and Courtallam. CSO's monthly index of consumer prices for the State which as reported last month (last issue p 74) shows a sharp 5 point rise to 281 for the month of July recorded a small point one decline for August. The price rise in July was due to the rise in clothing prices by 10 points between June and July and food prices by 7 points during that period. Rural prices showed an even steeper 17 point rise between July and August, with food prices rising by a large 8 per cent as between the 2 months. The action of the government to hold down prices by freeing the movement of rice between districts and within the food zone and the import of edible oil into the State has come none too soon. The gap between Madras city and mofussil prices continues in favour of the mofussil areas though by April there was some closing of the gap by the rise in the mofussil prices while Madras city prices were stable. As this part of the report is for April/May, where the general index and the rural index is for July/August when all prices, particularly rural prices rose sharply, the figures are not comparable.

**DA Increases:** In January, the State government announced increases in Dearness Allowance rates ranging from Rs. 10 to Rs. 25 per month to all government employees, teachers in aided institutions and staffs of local bodies—adding upto a total of 7 lakh persons. Also pensions have been increased by 10 per cent upto a ceiling of Rs. 15 per month and all contingent staff have been made regular staff. The total cost of these decisions will be Rs. 18 crores per annum.

**Power:** The power position in the State continued in January with the 25 per cent reduction and the outlook is that the summer will see no increase in the power cut. The Electricity Board has established a target of 205 million units for this period January-June, with the five units at Ennore generating 385 MW, Basin Bridge improving to 72 MW (in January it generated between 65 to 70 MW), Neyveli providing 1,609 million units which may be increased by a further 260 million units (part of which will have to be passed on to Karnataka) and Kerala providing 3 million units upto February (of which one million units have to be passed to Karnataka). Meanwhile it has been decided that further energisation of wells beyond the present 7.65 lakhs out of the total 12 lakh wells must await clearance from the ground water cell as the sub-soil water is being over exploited. With the supply of the large boiler (120 tonnes) by BHEL to the Tuticorin thermal plant in mid January, it is expected that the first 210 MW unit of the plant will start generation in December 1978 and the second unit of the 210 MW set will be commissioned in April 1979. The State government is urging the Union government to approve the third unit to meet future power needs. There is also the super thermal project proposal at Neyveli which was favourably reviewed by the Union Deputy Minister for Energy during a visit to Neyveli in January—another essential project to close the deficit in the power supply in the State and region.

For the country as a whole, the power situation in January was not in a satisfactory situation. Power cuts were obtaining in Punjab, Haryana, Uttar Pradesh, Karnataka, Madhya Pradesh, Goa, West Bengal, Maharashtra and in Tamil Nadu.

Due to inadequate winter rains, hydel reservoirs in the North are at a low level and in addition power generation has slackened from January 1976, when it stood at 240 million Kwh. In August-September it fell to 232 million Kwh and was at that level in January 1977. This is the result of past neglect—during the 10 years, 1956-66, the annual rate of power generation increase was 14.4 per cent and in the following 10 years 1967-76 it fell to 8.7 per cent. For 1976-77 it may rise to 10 per cent (against the 15 per cent target.) Our generation at 3,632 Kwh (in 1975-76) is about half of that of advanced countries at 6,500 Kwh, leading to an annual loss of Rs. 1,300 crores by the Power Boards in the country. This rather serious situation calls for (a) raising generation to 5,000 Kwh, (b) some increase in the power tariff for the agricultural sector, and (c) a reduction in transmission losses now ranging upto 24 per cent to something nearer the international norm of 11 per cent. The Union government reports an optimistic estimate of 90,000 million Kwh of generation for 1976-77, an expansion of transmission and distribution and increased inter-connections in regional grids. Within the plan for the chain of 2,000 MW super thermal power plants, negotiations with the World Bank were completed to announce in January the first such plant at Sangrauli in Uttar Pradesh with a first phase of 3 x 200 MW sets. The foundation stone for the Rs. 400 crores plant was laid in mid January at Chandrapur, 6 kms from Durgapur, and it will use the abundant coal reserves of the region. The very heavy power cuts imposed by Punjab and Haryana (a blanket cut on all industrial use in Punjab and 25 per cent on all industries in Haryana) were suspended during the last week of January due to late winter rains in the

region. Also good and quick action by power engineers in Haryana, when all 3 thermal plants came to a sudden halt on January 8 due to some fault, saved Haryana industries which during the 3 hours shutdown lost about Rs. 20 lakhs of production. The power problem in the 2 States in the first 3 weeks of January was also compounded by the increased agricultural demand due to the late winter rains referred to. Maharashtra's Rs. 50 crores plant for setting up 4 sets of 60 MW each using low surplus fuel oil will increase its power supply by an additional 240 MW in a year, from when the project is approved by the Union government. Similarly Haryana is planning to expand its thermal units by two plants of 110 MW each at Sonpet and Panipet. Andhra Pradesh has established its plan for a nuclear power plant to be located at Nagarjunasagar, where the site of 5 KM has been chosen and the cooling water arrangements planned. All this is good as far as capacity generation is concerned which will be effected in the Sixth and Seventh Plan. What is now needed is increased effective generation now—almost a doubling, and a reduction in transmission losses and it is to that also that immediate attention should be given.

**Krishna Waters:** The second meeting of officers of States of Andhra Pradesh, Karnataka, Maharashtra and Tamil Nadu on the supply of 5 tmc water from the Krishna to Madras city (see Vol VI pp 192, 254, 365 and 439) was held in early January in Hyderabad under the chairmanship of the Union secretary of agriculture. The studies on the project which are near completion were reviewed and certain alternatives were agreed upon and studies on them also commissioned. It is expected that work on the project will be

started at the start of the 1977-78 financial year.

**MMDA:** A State government team headed by the Chief Secretary visited the World Bank in January with regard to financing of the Rs. 46 crores Madras Urban Development Project and negotiated and finalised the IDA loan of \$ 24 millions for the project. Under the loan, 13,500 developed plots with water supply, sewerage, primary schools, health and community centres and workshops for the economically weaker sections of the population are to be established at Arumbakkam, Villivakkam and Kodungaiyur. On the basis of an aerial photo survey, 85 slums in the city will be provided with roads, toilet and washing facilities as well as tenements. The Pallavan Transport Corporation will acquire 285 additional buses during a 4 year period along with depots, passenger shelters and termini. Nine subways (five of them on Anna Salai) and two overbridges are to be constructed. The Union ministry of works and housing working group has recommended a Rs. 76 crores Rapid Transit System (RTS) from Tiruvottiyur to Kasturbanagar (a distance of 21.73 km.), which will be on the surface for part of the way and on elevated concrete pylons for the rest of the section. The first phase of this RTS from the Beach to Luz via Pycroft's Road (8.4 km.) will be undertaken in 2 stages—the first from the Beach to the Pycroft's Road and the second from there to Luz. The first stage costs Rs. 23.84 crores and for the last 2 years of the Fifth Plan Rs. 9.1 crores will be used to implement it. This part of the project includes optimisation of suburban rail services from Beach to Guindy, and later electrification of the services, Madras Central to Gummudipundi and Madras Central to Trivellore. This

emphasis of RTS on a rail based system is because the improved road system will reach saturation point by 1981. The State government is awaiting Union government approval to start work on RTS. Meanwhile within the World Bank loan, an inner ring road will be constructed to connect GST Road with the Madras Trivellore Road, which will provide the missing 12 KM link to form the ring road.

**Transport:** The State government has granted the Pallavan Transport Corporation two national tourist omnibus permits, and the Pandyan Roadways Corporation one, and the ITDC and TTDC three each for operation in any part of the country. Also 125 tourist vehicles are being added to the State Transport facilities—100 cars, 15 omnibuses for 29 passengers and ten larger buses—to operate throughout the country in addition to the existing 2,297 tourist taxis and 102 omnibuses and luxury coaches. This will facilitate travel and mobility between the States. In order to meet the twin problems of traffic congestion and air pollution, the government is establishing 3 truck termini for lorries at the outskirts of the city at Arumbakkam, S. N. Chetty Street and Pallavaram or St. Thomas Mount. All lorries will terminate here and their goods unloaded and transported into the city in smaller vehicles. A machine to measure the smoke emitted by vehicles is being devised by IIT to control the pollution menace. In regard to roads, the Union government points to the fact that 62 per cent of the road length is surfaced in this State compared to the all India average of 34 per cent, so that the possibilities of improved road transport in the State can be further pushed forward. The train services are also being expanded and improved. A Ganga-Cauvery express

linking Varanasi with Rameswaram is to be run from February 16, the Dadar Express between Madras and Bombay is being speeded up to cover the distance in 22-24 hours, and a second Pandiyan Express between Madras and Madurai is to be introduced. On the shipping side, in January the Madras Port documentation centre, was opened bringing together the Joint Chief Controller of Exports and Imports, Custom Authorities, Shippers Council and Shipping and Clearing Agents to streamline exports. This is the first step to developing the Madras Port export complex referred to in the last two issues (pp 4-5 and 76-77). This will improve the productivity and efficiency of the port. Transit sheds on a rental basis are being provided and facilities developed with banks for exporters to encash their warehouse receipts. Also in January the new light house was inaugurated on the Marina at a cost of Rs. 28 lakhs to facilitate the arrival of faster and deeper draught vessels and the increased shipping activity on the East Coast. On the telecommunication side with the expenditure of Rs. 1,200 crores in the last 3 years of the Fifth plan, all important towns in the State and the country will be linked by coaxial and micro wave facilities, including telecom switching equipment transmission system, trunk automatic exchanges, telex machines, testing facilities etc.

**Housing:** At the International Seminar on low cost housing, HUDCO announced that the country faced a housing shortage of 3.8 million units. Of the 488 projects costing Rs. 281.89 crores that it had sanctioned for the country, Tamil Nadu had the largest number of sanctioned projects—94 costing Rs. 26.62 crores, of which Rs. 11.72 crores had been disbursed. A Tamil Nadu Board housing

survey has disclosed that 64 per cent of the economically weaker sections (earning Rs. 350 or less per month) could not afford the cheap houses offered to them by the Board. The MMDA scheme at Arumbakkam, Villivakkam and Kodungaiyur referred to earlier is therefore being split into 3 groups to overcome this drawback—(a) mini plots of 10 feet with walls between 2 plots over which thatched roofs can be raised plus common sanitation, for those earning Rs. 150-200 per month, (b) larger plots with lavatory and bath rooms to which the huts will be added for the Rs. 200-Rs. 300 group and (c) LIG and MIG group houses. The Board has made economies in construction, through use of fly ash (Rs. 4.5 lakhs saved per year), channel designs for roofing (Rs. 2.5 lakh saved per year), celerate panels for roof (saving Rs. 1.2 lakhs), underreamed panels for foundations (saving Rs. 2.72 lakhs), and use of deformed bars (saving Rs. 5 lakhs). The total savings on building costs through these measures have been 10-15 per cent. As noted earlier, Rs. 75 lakhs have been allocated under the Accelerated Slum Improvement Scheme to provide basic amenities to 694 slums, housing 88,225 families in Madras, Madurai, Tiruchirappalli and Coimbatore—out of a total of 772 slums housing 11 lakh families identified by a survey. For the other slums, one public convenience for ten families, one public fountain for every 20 families or bore-wells, and ten flood lights per acre of slum area are being provided. The Slum Clearance Board is clearing all slums located within 80 feet of either bank of the Buckingham canal, involving 40 slums with 8,057 families. In the first phase, 2,094 tenements are being built at a cost of Rs. 2.09 crores for the families removed from slums from the Luz area of the canal. 6,000 new

tenements are being built and completed by the end of the calendar year by the Board.

*Western Ghats Development:* Tamil Nadu has joined with Maharashtra, Goa, Karnataka and Kerala in undertaking pilot studies for the integrated rural development of the Western Ghats for which the Planning Commission has allocated Rs. 200 crores in the Sixth Plan. The Administrative Staff College has been retained to undertake the studies through household and pre-development surveys. The region comprises 150 taluks and the States have selected 11 taluks for pilot studies (Kudaikanal and Gudulur in Tamil Nadu) and 2 pilot villages in each taluk (Pullathur and Poomparai in Tamil Nadu). The plans link the time and endowments of the households with local resources, strengthening and diversifying current occupations. Improved marketing facilities are seen as a means of preventing artisans from giving up their occupations and becoming landless labourer, and improvements in the productivity of the households—as one means of promoting self-reliance and not depending on government jobs.

*Legislation for the Weaker Sections:* The State government extended in January by one year upto January 15, 1978 the Tamil Nadu Cultivating Tenants (Protection from Eviction) Amendment Act 1977 (see Vol VI pp 126 and 257) affording protection to cultivating tenants against eviction from their holdings on grounds of arrears of rent payable to the landlord or public trust. Also through the Tamil Nadu Debt Relief Laws (Amendment) Act 1977, it has extended for 6 months from January 15, the moratorium on debts and the ban on sale by pawn brokers of the articles pledged with them on account of

the continuing effects of the drought that hit the State last year. The experimental audit of village and taluk revenue accounts tried in some areas is being given up because of the problems of slackness in preparation of village accounts by village officers, denial of on-the-spot redressal of ryots grievances with regard to excess collection, encroachment, penalties, grant of pattas etc. It has been decided to revert to the traditional Jamabandi system for the checking of village accounts with built in safeguards for speedy and honest administration.

**Trade Fair and Films:** The Annual Trade Fair was started in early January with the participation of a large number of States and the government of India. It is attracting a large number of visitors from all over India. The State government is using the Fair to improve its tourist facilities to increase the 25 per cent of tourists coming to India who visit this State to 40 per cent. For this purpose it is organising package tours and tourist festivals at Madurai, Tiruchi and Mahabalipuram. The government also announced in January that it is considering a scheme to subsidise some 10 or 15 low budget quality films with a subsidy of Rs. one lakh each to be administered by a body of experts and also to ease the problems facing the film industry with regard to entertainment taxes. The Tamil Nadu Permanent and Touring Theatre owners Association formed with a membership 1,500 theatre owners in their turn has announced that they are considering admitting for a month free of cost those undergoing sterilisation, as a means of popularising the Family Planning programme.

**Welfare:** To help repatriates from Burma and Sri Lanka, the United Front Federation of Repatriates has launched a

multi pronged scheme to canalise all the assistance given to them by the Government of India. It has formed a co-operative society for women repatriates, and provided them with singer sewing machines through nationalised banks, trains them in designing, cutting and sewing, and markets their garments. Similarly dairy farms, coir rope making etc. have been started on a co-operative basis. With regard to people's transportation, with the hike in petrol prices, taxis have become too expensive for the average city dweller and the number of taxis have declined from 5,000 to 2,357 since the rise in the taxi fares 2 years ago. There is an insistent demand for an increase in the 1,500 auto rickshaws and the 5,300 cycle rickshaws in the city. The problem here is that they also cause a traffic problem which will have to be regulated.

## National :

**Fourth Year of Fifth Plan:** In January, the discussions on the Fourth Annual Plan for 1977-78 with the States and Union ministers were completed by the Union Planning Commission. The total plan outlay for the year is likely to be Rs. 9,200 crores, which is Rs. 1,350 crores more than the 1976-77 plan outlay. The Union plan will be around Rs. 4,700 crores and the States Plan amount to Rs. 4,500 crores. The financing of this plan outlay will be the major thrust of the Budget for 1977-78, which might call for both some increase in direct taxes and drawing down of our growing foreign exchange resources.

**Prices and Anti-Inflation:** The wholesale price index for December stood at 315.8 on December 25, compared to 313.5 at the end of November reported in the last issue. Industrial raw materials recorded a 3 per cent rise during Decem-

ber, groundnuts, prices rising by 7 per cent and raw cotton prices by less than 3 per cent. For 1976 the wholesale price index rose by 8.5 per cent during the 12 months, food articles rising by 7.5 per cent and industrial raw materials by 32 per cent. In the first 9 months of 1976-77, prices have increased by 11.3 per cent compared to the first 9 months of 1975-76 when it fell by 8 per cent. The retail price index for Greater Bombay of the Economic Times showed a small fall 0.6 per cent during December, but for the period April-December 1976 records a rise of a 9 per cent compared to the rise of 0.4 per cent 1975 April to December. The retail Bombay index food prices declined by 0.7 per cent in December, sugar prices declining by 4.5 per cent, and oils and fats prices rose by over 1.5 per cent, the other items remaining more or less stable. In this context, the RBI statement shows that monetary expansion during April-December 1976 was 12.3 per cent against the 6.3 per cent expansion in the period April-December 1975. All 3 parts of money supply have increased sharply—currency by 9.8 per cent (against 1.5 per cent last year), bank money by 14.3 per cent (12.6 per cent last year) and other deposits in RBI by 92.3 per cent (-20.9 per cent last year). The main reasons for the increases in money supply were the increases in the foreign exchange resources and net bank credit to the commercial sector, to some extent moderated by low net bank credit to the government sector and the near stationariness of the government's net currency liability to the public. It is against expansionary trends that RBI and the government launched a series of anti-inflation actions in January. RBI decided, to impound 10 per cent of the incremental deposits between January 14, 1977 and April 1, 1977 and also advised banks to

increase margins on all types of advances against inventories and book debts by 10 per centage points. The enhanced margin is not to apply to advance to commodities under selective credit control, to small scale industries, export units, sick units and those given credit at low interest. The government also has under consideration continuing the schemes for impounding DA and wage increases which will be announced at the time of introducing the next budget. Repayments and interest during the year will amount to Rs. 341 crores and the accumulations in the compulsory deposit for income tax payers till the end of March 1977 is about Rs. 195 crores. The government also intensified its action against hoarders, black marketeers and profiteers and has instructed the States to take quick and effective action against them. The Chief Ministers Conference in January decided that there should be a national policy on prices and the price surveillance committee with the Prime Minister as Chairman should review every fortnight and control the price situation. In addition, the government is importing freely edible oils and oil seeds to damp down their prices and at the end of January announced complete exemption from basic customs and auxiliary duties on groundnut oil and groundnut, palm oil and palm seeds, rape oil and rape seeds, soyabean oil and soyabeans, sun flower oil and sunflower seeds. At the same time the government and RBI are ensuring that credit by public sector banks will be redeployed to ensure that within overall credit restraints, advances to the neglected sectors and rural areas continue unaffected. In fact in a review by the RBI, it noted that 900 blocks have no branch banks and decided that they should have one by March 1978, that against the target of 33.3 per cent of all advances



being for the priority sector, only 25.5 per cent was the achievement and that advances against differential rates schemes constituted 0.5 per cent of total advances instead of 0.7 per cent. Also the RBI has introduced some flexibility in the implementation of norms and guidelines for bank lending evolved on the basis of the Tandon Committee report, in order to take care of bonafide cases. Towards the end of January, there seemed to be some slowing down of credit, for the week ending January 14 there was a contraction of Rs. 12.69 in bank credit and Rs. 137.74 crores in deposits. However a strict watch is being kept over the loan operations of large borrowers defined as those having a total credit limit of Rs. one crore and above, and on whom, apart from the monthly statement, the banks are now required to make quarterly statements as the nature of loan facilities, the amount of credit limit and the outstanding balances including term loan accounts. One other development in January on price reporting is the decision of the Union government to change the wholesale price index and make 1970-71 the base year in place of 1960-61. The first official index as revised was published on January 14 and included in the RBI Bulletin weekly statistical supplement Vol 28 No. 3 of January 17. The justification given for the change in the base year is that over the past decade many structural changes have taken place and the workers' consumption pattern has changed and these are reflected in the revised index. As against 218 commodities and 774 quotations in the old index, the new one is based on 360 commodities (80 primary, 270 manufactures and 10 others) and 1,275 quotations. Also the weights have been changed. It is the revised index

which will be reported on from the next issue of the Bulletin.

**GNP Growth Rate and Industrial Growth:** An official assessment of the Indian economy issued in January records that GNP increased in real terms by 3.9 per cent per annum and per capita income by 1.9 per cent during the first decade of planning 1951-61 which continued till the mid term of the next decade, when in 1965-67 there was a decline of 5.1 per cent in national income and of 7.2 per cent in per capita income. In 1967-68 (due to the Green Revolution in its first year) national income increased by 8.2 per cent—the highest on record. In 1969-70 it increased by 6.4 per cent and in 1970-71 by 6 per cent and declined again by 1.1 per cent in 1971-72 and 1.3 per cent in 1972-73. In 1973-74 it picked up again by 5.7 per cent and fell to 0.2 per cent in 1974-75. In 1975-76 it rose to 6 per cent and is expected to be 6 per cent in 1976-77, despite improved industrial performance due to the drop in agricultural production. In 1975-76 grain output was 118 million tonnes and in 1976-77 is anticipated to be 116 million tonnes, so that the overall index of agricultural production for the year would be less than a 2 per cent growth. In fact as between the 2 years the percentage increases of agriculture and manufactures are reversed. In 1975-76 agricultural growth was 10 per cent and manufacture growth 4 per cent while in 1976-77 agricultural growth would be about 4 per cent and manufacture 10 per cent and given the higher weightage of agriculture at 50 per cent, the fall in overall growth is explained. For the Fifth Plan the average annual growth is likely to be 4.37 per cent. On the side of industrial growth, the official index of industrial

production published upto October 1976 shows that for the first ten months of 1976 industrial growth was 10.9 per cent compared to 3.8 per cent in the first 10 months of 1975. During the slack season May-October 1976 the increase was 11.8 per cent (compared to 3.2 per cent in the corresponding season in 1975). But the index reached 131.8 in July has been falling consistently and was in October 126.1. The increase in output of electricity, food manufacturing, chemicals and chemical products was offset by declines in transport equipment, machinery and rubber products. To speed up industrial growth, the industry ministry proposes to convert 1,000 letters of intent into industrial licenses this year, which will call for Rs. 10,000 crores in capital resources. Simultaneously the ministry will weed out unimplemented industrial licenses so that a realistic assessment can be made of the resources needed for the development of key industries. Also the government decision to provide total credit of Rs. 550 crores during the next 3 years to modernise the five selected industries—textiles, jute, cement, sugar and engineering,—which was discussed and phased with the term ending institutions will push forward industrial growth. CSO is undertaking a pilot economic census from January 17 in 22 districts—one in each State and Union Territory—which will lay the basis for a comprehensive countrywide census which will include the structure, activities and performance of the unorganised sectors, including pricing, manufacturing, trade, construction and service sectors.

**Public Sector Performance:** The public sector undertakings production under the Department of Industrial Development, in December 1976 was Rs. 11.05 crores against the target of

Rs. 10.61 crores. For the 9 months April to December, their cumulative production was Rs. 88.61 crores against the target of Rs. 89.13 crores. Six units produced at higher levels during this 9 months level compared to the 9 months in 1975—HPF (54.76 per cent), Hindustan Cables (46.97 per cent), instrumentation (34.41 per cent), Nepa (16.04 per cent), Cement Corporation (8.52 per cent) and TAFCO (1.25 per cent). Lower production is reported in 3 units, Hindustan paper, National Instruments, Bharat Ophthalmic. The turnover of heavy engineering public sector is expected during 1976-77 to be Rs. 850 crores, an increase of 13 per cent over that of the previous year, along with a profit of Rs. 58 crores.

### *National Production Front:*

**Steel:** Rourkela reports a 1976 production of 1.17 million tonnes of saleable steel, being 95.6 per cent capacity use. The International Iron and Steel Institute reports that world crude steel production increased in 1976 by 58 per cent at 683.5 million tonnes. This is one more reason for the rejection of the proposal of a buffer stock in steel put forward by SAIL (see Vol VII p 9) by the government as the problem of rising steel stocks, it is felt, should be dealt with by promoting increased domestic consumption and expanding exports. In fact SAIL's expanded sales reduced its stock in October-November by 25,000 tonnes and with the increased production of 12,000 tonnes in December, the net stock reduction was 13,000 tonnes. On the exports side, exports to industrialised countries are beginning to increase, and the export market for sophisticated items like plates, sheets, coils etc. in the US and Europe is being explored. Also a special SAIL task force is working on increased uses of steel in

the rural sector for grain storage agricultural implements and rural housing. In regard to internal steel demand, SAIL computes that a shortage of some 3.5 lakh tonnes of wire rods might develop by 1983-84 and so has proposed that a new wire rod mill might be set up at Durgapur, IISCO or Vishakhapatnam to use the one million surplus billets. Also to meet the increased demand for galvanised products, it has under study the most economical investment—whether to extend the existing plant at Rourkela or put up a new one at Bokaro, where the timing of the 7.5 lakh tonne increased capacity will also have to be decided. SAIL forecasts a demand for steel of 11 million by 1983-84, which is one million tonne less than that of the Planning Commission due to lower forecasts by SAIL of the requirements of the packaging industry. The government is considering a package of incentives to mini-steel plants whose capacity use in 1975-76 was 30 per cent and in the following year 41 per cent. Some of the plants are in backward areas and if allowed duty free import of scrap, and given cash aid of 15 per cent of their exports, their exports could be one billion tonnes worth of Rs. 150 crores.

**Crude:** In January production at Bombay crude was doubled from 15,000 barrels a day to 32,000 barrels and work on the third platform was started. For the country as a whole, crude production expanded by 14 per cent to 7,28,000 tonnes in October. GSI reports several oil and gas seepages from the Baramura Hill ranges in Tripura. ONGC drilled 3 wells in the area and struck gas in one. Oil exploration work in the Gulf of Mannar is to start in April, the Asamera firm entrusted with the task will be drilling the first well to a depth of 13,000 feet 15 km south of Rameswaram and the

second one in the Palk straits. The government is also planning to let out offshore exploration to foreign oil companies in the Krishna, Godavari and the Mahanadi basins, the Andaman-Nicobar basin and Kerala offshore and Laccadive basins. ONGC is taking up onshore drilling at Ramsahr and Jwalamukhi in Himachal Pradesh, Puranpur and Pareva in UP, Chargala in Assam and the Diamond harbour in West Bengal. The government's aim taking into account the rise in oil prices (see Vol VII p 9 and last issue p 82) and the 50 per cent reduction in crude offtake reported by Iran, is to push ahead with oil exploration both offshore and onshore and reorganise the oil industry so that by 1980 a substantial part of the country's demand for crude is met by internal production. The production target of 9.46 million tonnes for 1976-77 is likely to be exceeded and the target for 1977-78 fixed at 10.9 million tonnes. By the end of the Fifth Plan, the target of 14 million tonnes will be attained and probably surpassed by one million tonnes, when Bombay High and other Western region oil wells will produce 11 million tonnes and the Assam wells 4 million tonnes. With the December 30 ordinance taking over CALTEX, the public sector becomes responsible for 26.9 million tonnes out of 27.40 million tonnes of the refining capacity of the country and the question of the reorganisation of the oil industry is now under consideration. The thinking is to group the five companies, Bharat Refineries (BRL), Hindustan Petroleum (HPCS), IOC, Assam Oil Company and Oil India into three large ones, with a view to rationalising refining and marketing operations and so reducing costs and conserving petroleum products and setting up a separate offshore oil explorations and development organisation. The

government is planning to import 3,000 tonnes of petro chemicals in the coming months to develop the domestic market for the Indian Petro Chemicals Corporation. Another source for the Corporation is the LSHS surplus from Bombay High and Dhuvaram which will increase from 1.4 million tonnes in 1975-76 to 3.5 million tonnes in 1978-79. It can be used in the fertiliser, petro-chemical and power projects and can also be exported. During 1977 the country's crude availability will include the supply of one million tonnes from the Soviet Union to be followed by 1.5 million tonnes in each of the three subsequent years.

**Coal:** Coal production in October was 7.3 million tonnes and in September 7.6 million tonnes. For the year 1976-77, the production at 104 million tonnes will be a little above that for 1975-76. For 1977-78 production is expected to be 108 million tonnes, of which coal India's share will be 94.50 million tonnes (against its target of 97.10 million tonnes). There is a problem here in that the demand for coal is not at the level forecast in the Plan. For 1976-77 the demand was estimated in the Plan at 111 million tonnes, whereas the actual demand is likely to be 100 million tonnes. For 1977-78 the demand estimate has been reduced in the Annual Plan document to 109 million tonnes so that the estimate of 124 million tonnes in 1978-79 will also have to be revised downward. This surplus production has led to the decision to build a coal buffer for 1976-77 of 25 million tonnes at a cost of Rs. 160 crores. The buffer will be: (a) 10-12 million tonnes of operational stocks at the collieries, (b) 10.4 million tonnes of insurance coal stock to be maintained at Maharashtra and MP and, (c) 20 to 45 days stocks held by major consumers such

as thermal power stations, steel and cement plants. Coal India has also developed a 10 year plan 1976-77 to 1985-86 with a production target for the terminal year of 183 million tonnes, calling for an investment of Rs. 36.64 crores. This assumes that the total demand during the period will increase to 203 million tonnes. There are two problems here. First the demand projections vary widely. The Fuel Policy Committee estimated coal demand at 164 million tonnes by 1983-84, the Planning Commission scaled it down first to 141 million tonnes and later to 135 million tonnes. Coal India's current forecast is 179 million tonnes leading on to 203 million tonnes in 1985-86. These varying estimates must be reconciled. Second the demand for coal is biased against low grade coals which is our major coal resource, which means that its quality will have to be upgraded by beneficiation or dewatering. In this connection, the production of Jwala, the smokeless coal product by Coal India's 30,000 tonne coke pellet plant at Kusunda in one move in the right direction. The demand for soft coke which is now 3.80 million tonnes will go upto 11.50 million tonnes by 1985-86. Coal India also reports that some Rs. 120 crores will be saved in 1976-77 through switching from fuel oil to coal despite its slow pace (see vol VI p. 262 and Vol. VII p 10). Also as a result of its weakening demand and cost reductions of Rs. 1.50-2 per tonne this year and Rs. 3 per tonne next year, the price of coal has declined throughout the country which could lead to replacing kerosene by coal in rural areas.

**Copper, Iron-Ore and Non-ferrous Metals:** Copper production in 1976-77 is expected to be 26,400 tonnes, an 11 per cent increase over that of the previous

year. Hindustan Copper's Khetri complex will be producing 10,000 tonnes of anodes which is only 33 per cent of its capacity. The smelter's working needs to be improved through feeding it with quality concentrates. This is being done and for December the production was 1,503 tonnes of wire bars against the target of 1,000 tonnes. Zinc production for 1976-77 will be 33,000 tonnes, an increase of 25 per cent over that of last year, and lead production at 6,000 tonnes shows an increase of 16.3 per cent over last year. Iron-ore production increased from 2.8 million tonnes in September to 3.2 million tonnes in October, magnesite from 26,000 tonnes to 28,000 tonnes and phosphorite from 54,000 tonnes to 63,000 tonnes.

**Textiles :** In January, the government announced a package of short term measures to revive the textile industry involving a 35 per cent increase in ex-mill prices of controlled cloth and the supply of imported cotton at domestic prices. The government will provide a subsidy to the National Co-operative Consumer Federation and its public distribution network to neutralise the effect of higher ex-mill prices vis a vis the consumers of controlled cloth. The subsidy will cost the government Rs. 31 crores—Rs. 10 crores on 110 million sq. metres produced by the handloom sector and Rs. 21 crores on 300 sq. metres produced by the mill sector. The process of partial transfer of controlled cloth production to the handloom sector has started and by the end of the year the sector should be producing 100 million sq. metres. The subsidy for the handloom sector is one rupee per metre and for the mill sector the actual cash losses, without any allowance for depreciation or return on investment. In addition the 110 financially weak mills

will continue to be totally or partially exempted from the obligation to produce controlled cloth. However there is no let up on the obligation of the others to produce controlled cloth. In view of the wide flaunting of the obligation, resulting in producing only 67 million sq. metres during the 3 months July-September 1976 (against the 400 million sq. metres for this year), the government launched prosecutions against 17 mills in January for non-fulfilment of their obligations to produce controlled cloth. Increase of raw material supplies and liberalisation of bank credit to the mills are other elements of the package help to the mills. The government has already permitted import of viscose/polynosic staple fibre on a free licensing basis (see last issue p 85) and decanalised polyester fibre imports till October 31, 1977 and ordered 10 per cent non-cotton fibre use by all mills. CCI has contracted for import of 5,20,000 bales of cotton, of which by January 3,30,000 bales have been received. Towards the end of January, the government reduced the import duty on coprolactum from 120 per cent to 90 per cent and the import of acrylic fibre has been placed on a free licensing basis. These measures will relieve the pressure on cotton and bring down its price. The talks on more liberal commercial bank credit to the southern mills will be reported under the State Industrial Development Section. An NPC study shows that the textile industry is losing 184 million kg. of cotton yarn annually because of economically inefficient and technically obsolete machinery, plus 182 million kg. of woven price goods. This also has reduced its profitability, reduced its capacity to generate reinvestible surpluses, lowered its competitive capacity internationally and has led to unutilisation

to the extent of 27 per cent of its spindles and 32 per cent of its looms. While the term landing institutions' long term credit is rightly being planned to assist the industry to modernise its equipment, better financial management calls for more of its capital needs being met from internal sources.

**Cement and Small Scale Industry:** Cement production in 1976 was 18.5 million tonnes compared to 16.27 million tonnes in 1975, a growth rate of 13.4 per cent. More important, as a result of increased production, the Eastern region has become self-sufficient, and Madhya Pradesh factories are meeting shortages in the northern region and long distance movement from Tamil Nadu to the Eastern region is reduced and the incidence of freight on the freight pool reduced. During the year, 1976, 6.3 lakh tonnes of cement was exported earning Rs. 25 crores. With regard to the development of small scale industries, IDBI reports that it is disbursing Rs. 481 crores to small units in 1976-77 and will be disbursing Rs. 650 crores per annum during 1977-80. In addition under its soft loan schemes, it is disbursing Rs. 50 crores in 1976-77 and will be disbursing Rs. 150 crores per year in the next 3 years. Out of the total Rs. 2,400 crores to be disbursed in 1977-78, 34 per cent will be financed from internal resources of repayment of earlier loans, sale of investments and current income, 37 per cent from borrowings from other sources and companies deposits with IDBI in lieu of income tax surcharge, and the balance of Rs. 670 crores through the issue of bonds. The refinance to the small scale sector which was Rs. 26.24 crores in 1973-74 will be Rs. 150 crores this year 1976-77.

**Agricultural Production:** The Union ministry of agriculture reports that as at the end of December the total procurement of rice was 20,05,853 tonnes (22,45,624 tonnes in December 1975), with Punjab procuring 10,57,833 tonnes (7,44,836 tonnes the previous year) and Haryana 2,76,022 tonnes (2,74,783 tonnes the previous year). The Southern States are late in their procurement because of the late rains and late rice harvest. The rice procurement target for the year is 4.4 million tonnes. The ministry also reports that with the widespread rains in late January, another bumper rabi crop is expected this year. In a final revised estimate of last year's foodgrains production the ministry states that the total production was 120.8 million tonnes (not 118 million tonnes as hitherto reported see Vol VI p 643), the kharif crop accounting for 74 million tonnes and rabi for over 46 million tonnes. The rabi rains covered Punjab, Haryana, Uttar Pradesh, Madhya Pradesh, Bihar and Gujarat which is also of benefit for the pulses grown in rainfed areas. Kharif production will be lower than last year because of the effects of the drought in Orissa, Tamil Nadu, Madhya Pradesh and Karnataka, though with the very good output in Punjab, Haryana and Uttar Pradesh, the foodgrain position is sound. The Union minister of Agriculture announced in January that the total government stock of foodgrains was 17.9 million tonnes, of which FCI held 14.39 million tonnes including 10 million tonnes under covered accommodation. FCI, to expand its storage capacity before the rabi harvest, processed 400 offers from private parties for constructing storage space for 3.3 million tonnes. These godowns will be rented by FCI on a long term basis—3-5 years—and will be built with the help of loan finance by nationalised banks. Three

lakh tonnes capacity will be created each in Rajasthan, Uttar Pradesh, Bihar, Madhya Pradesh and Andhra Pradesh and 2 lakh tonnes each in Punjab, Assam and Tamil Nadu. Tamil Nadu has FCI storage capacity of 17 lakh tonnes, including covered storage of 3.5 lakh tonnes. In order to encourage government employees to purchase foodgrains from its bulging buffer stock, the Union government has offered an interest free loan of Rs. 300 to each. The State governments have been asked to prepare similar schemes and to supply rations at the enhanced scale of 4 kg. per person per month, without ration cards requirements at major irrigation and construction works. More fair price shops are being opened and the price of milo reduced from Rs. 86 to Rs. 76 per quintal. The Indian Grass Land and Fodder Research Institute, Jhansi has identified and announced various agronomic practices for increased fodder, production and also for a number of high yielding nutritive forage crops for different ecological conditions. This also fills the gap between the main kharif and rabi crops and involves evolving suitable crop rotations for the supply of green fodder round the year, working out cultural, irrigation, fertiliser requirements of fodder crops and practices for increased seed production. The ministry also announces that the total value of fertiliser and other agricultural inputs to be handled by co-operatives will be Rs. 7,000 crores in 1977-78, the margin of assistance required to handle this volume of turnover being Rs. 68 crores. During the current year, Rs. 19 crores are being provided for agricultural inputs handling. Also to close the gap of 2.3 million hectares in the use of irrigation potential, Rs. 19 crores are being used this year for development of command areas. To increase the irrigation area and potential, larger alloca-

tions to ensure speedy execution of minor irrigation works and the investigation and development of ground water resources are being provided. Earlier in January when it looked as if the rains would fail or be seriously delayed, the Union and State governments began contingency planning to ensure uninterrupted power and diesel supplied to the rabi States. And so till the rains, power was made available without interruption to the farmers in these States (leading to rather heavy cuts in industrial uses) and the consumption of diesel for the operation of the pumpsets increased steeply. The rains have helped but this kind of contingent planning for drought and floods should become a normal part of the Plan in the country and in the States liable to these periodic visitations. The Union minister also announced in January that small farmers are being redefined in drought prone areas in relation to their loan eligibility. At present cultivators with upto 2 hectares of dry land or upto one hectare of class I irrigated land are classed as small farmers and those with upto one hectare of dry land and half hectare of class I irrigated land classed as marginal farmers. Several States have requested a revision of these definitions in Drought Prone Areas. Loans from co-operative societies should cover a much large number of small and marginal cultivators then is involved in this definition. For 1975-76 short and medium term co-operative credit from Primary Societies was Rs. 853 crores (it was Rs. 22.90 crores in 1951-52), and long term loans through land development banks, Rs. 180 crores (it was Rs. 1.38 crores when planning started). There is need for further increase and improvement in these credit facilities.

**Export :** Exports for the year 1976-77 are expected to reach Rs. 4,800 crores, against the year's target of Rs. 4,500 crores and the Fifth Plan target of Rs. 4,770 crores. Exports during the 8 months April-November 1976 were Rs. 3,105.46 crores and import during that period were Rs. 3,145.55 crores—leaving a trade deficit of Rs. 40 crores. As forecast (see Vol VII p 15), the initial months surplus is now turning to a deficit. The good export performers were cotton textiles which are expected to earn Rs. 470 crores against Rs. 422 crores for the year this despite the fact that garment exports to EEC are being adversely affected due to the delay in announcement of quotas to EEC countries and the high and varying floor prices planned for the various types of garments; the other good export performance is engineering goods which will earn Rs. 550 crores against the target of Rs. 500 crores. Cement exports are also increasing rapidly and may earn Rs. 35 to 40 crores for the year. Exports in the first nine months, April to December, was 5 lakh tonnes and earned Rs. 20 lakhs (against Rs. 5.5 lakhs earned in the first 9 months in 1975-76). This large export earning is due to a substantial increase in the volume of cement being exported. In the last 3 months another 3 lakhs will be exported. Electrical goods exports are also expanding, having touched Rs. 64 crores in 1975-76, with the trend continuing during 1976-77 due to market diversification and expanded product mix in the industry. Exports of diamonds doubled from Rs. 15.71 crores in August to Rs. 30.10 crores in September and export of precious and semi-precious stones was Rs. 3.24 crores. Export earnings from leather and leather products in the first 8 months April to November, also increased to Rs. 205 crores (compared to Rs. 120.2

crores in the same period in 1975-76). Cane furniture is finding a large market, with Rs. 16 lakhs an order from Iran, UK France and Italy. Silk exports crossed the year's target of Rs. 17.50 crores during the first nine months, April to December, due to increased demand by Germany, UK, US, Italy and Switzerland. To further expand exports, a review committee of the commerce ministry has recommended a complete restructuring of the export promotion councils and enlargement of their functions and powers. Commodity Boards for sports goods and cashew in place of the existing export promotion agencies, a separate council for heavy engineering items, turn-key jobs, and allied consultancy services and construction contracts, and a second council for the remaining engineering items have been recommended. The councils, it is suggested, should sponsor the establishment of export oriented units, fix floor prices and deregistration of defaulters, formulate and operate schemes for supplying indigenous and imported inputs for export production and maintain information on export production capacity and analysis of the need for further capacity. The ministry should now take a decision on these recommendations and put the decisions into effect. IDBI has developed a scheme under which rupee assistance will be available to a select group of industries for the import of small value balancing equipment, drawings, designs, and consultancy services and technology under the Technical Development Fund set up by the Union ministry of Industry—as a further boost to production and exports. Trade Agreements during January have been signed with Saudi Arabia, UAE, Bahrain and Qatar, and with UK and Poland which will lead to expansion of trade with these countries. Fifteen industrialised countries agreed at GATT



discussions that from January 1 new trade concessions will be made to a wide range of goods, which in the case of India will benefit the coffee, tea, and spices and other agricultural products. In January two export cargo vessels were added to the shipping services. India is also negotiating with EEC on coir and coir products and for this purpose has proposed the setting up of joint projects and production co-operation. December also saw a steep rise in the country's foreign exchange resources. By December the foreign exchange reserves stood at Rs. 2,246.15 crores (compared to Rs. 964 crores in December 1975). Including gold and SDRs, the total reserves amount to Rs. 2,600 crores. The increase is due to higher exports, reduced imports, larger aid utilisation and increased flow of inward remittances which at December amounted to Rs. 1,500 crores. In January the USSR State Bank raised the value of the rouble in relation to the rupee. Against the rate of 8.50 roubles to Rs. 100 since November 1975, on which India was negotiating with the Soviet Union (see Vol VI p 646), the rate has been raised to 8.22 roubles per Rs. 100. The Soviet Union justified this by referring to the depreciation of the sterling value of the Rupee by 3.3 per cent since that date. This is an added problem now to the Rupee-Rouble exchange negotiations.

*Aid:* India and Canada signed an aid agreement in January, under which India will receive a grant of \$ 15 million for import of rape seed oil. This is in addition to the 2 grants of 6 million Canadian dollars made in June and October 1976. Also with UK, five agreements were signed in January for Rs. 106.4 crores as maintenance aid, Rs. 18.39 crores for debt refinancing, Rs. 15-20 crores for import of capital

investment goods and for the coal and power sectors and Rs. 7.6 crores as technical co-operation.

## International:

*Bangla Desh:* In January two more rounds of talks were held between India and Bangla Desh, one at Dacca and the other at Delhi on the Farrakka/Ganga waters problem. Neither of the two talks resulted in any agreement on the division of Ganga waters during the lean period. There is disagreement on the length of the lean season, India maintaining that it covers the period of mid March to mid May, while Bangla Desh wants it to run from January to June. Second there is disagreement on the amount of the waters that should accrue to each country. There is an average of 50,000 cusecs during this season. India needs 30,000 cusecs at a minimum, Bangla Desh wants 35,000 cusecs. The talks have been adjourned without an indication as to its resumption, so that this issue will continue to mar the relations between the two countries.

*Pakistan:* Trade and passenger traffic between India and Pakistan is steadily increasing since the July agreement on trade and traffic (see Vol VI p 450). Between August and December 1976 Rs. 1.7 crores worth of timber, bamboo, tea, refrigerators, electric bulbs and tubes, bleaching powder and tractor parts have been exported to Pakistan. 7,000 air passengers and in December 6,290 passengers by train have travelled to Pakistan. Exports which started with Rs. 83,000 in August moved to Rs. 7.35 lakhs in September, Rs. 10.19 lakhs in October, Rs. 36.4 lakhs in November and Rs. 62.7 lakhs in December.

**World Monetary Reform:** IMF in January returned 6.25 million ounces of gold to its members in proportion to their quotas and will be transferring similar amounts during the next 3 years in accordance with January 1976 Kington agreement (see Vol VI p 140) to reduce the role of gold in the world monetary system according to which 25 million ounces are to be returned to member countries and 25 million ounces are to be auctioned for constituting the Fund to help poor countries. India received 2.01 lakh ounces equivalent to \$ 8 million which have been added to its gold reserves. The gold is valued at the official IMF price of 35 SDRs (\$ 42) and at this rate India's gold reserve at the end of December was Rs. 182.53 crores. There is the question of the return of China's gold which is now under discussion, with India and some other countries taking the position that it should not be returned to Taiwan. In January the Central Bank of 8 Western countries agreed on a \$ 3 billion credit loan or safety not to stabilise Britain's official sterling reserves and safeguard it against withdrawal of sterling balances by oil exporting and other countries which amount to \$ 4.6 billion. In 1976 \$ 2.2 billion in pounds were withdrawn by these countries. Britain's drawals on this fund will have to be reimbursed by 1983, by which time UK will become a net exporter of oil from the North Sea and should have a comfortable balance of payments. With this flow of funds, the Bank of England reduced in January the Bank rate by 0.75 per cent to 13.25 per cent to spur production and industrial activity. Following its December devaluation of 2 per cent, Israel devalued its pound again in January by a further 2 per cent against its basket by 5 currencies, the US Dollar, Sterling, the West German Mark, French Franc and Dutch Guilder.

**World Economy:** In view of the continuing deadlock in the dialogue between rich and poor countries in the UN forum—UNIDO at Nairobi, IMF World Bank meeting at Manila, and the CIEC discussions at Paris—the President of the World Bank has proposed that a high level non-official commission should be constituted in order to analyse the problems and recommend the political decisions which rich countries must make to determine the overall volume of trade and financial support for the poor countries and the policy changes and structural reforms that the poor countries should undertake and how the 2 sets of measures can supplement each other. He has proposed that the commission be headed by Mr. Willy Brandt and be financed from several sources—governments, international agencies and private foundations. The government of Netherlands and IRDC of Canada have offered to finance the commission. This unofficial effort would be one way to break out of the deadlock.

**UNIDO and GATT:** The UNIDO conference on industrial and technological co-operation among developing countries in January in New Delhi identified 3 fields—electronics, drugs and pharmaceuticals, and non-conventional sources of energy—where joint R and D Centres will be set up by the countries. Also the results would be used to negotiate for technology from the industrialised countries. The Conference also provided the occasion for a number of bilateral agreements with India which among the developing countries has the technology in a number of fields of importance to the countries. The major purpose of the conference was to move towards the realisation of the Lima Conference target of the developing countries sharing to

the extent of 25 per cent in world industrial production by 2000 AD. On the trade front 44 developing countries participating in the Tokyo round at GATT, Geneva asked 11 industrialised countries for concessions on 290 categories of goods. As noted in the Exports sector, the developed countries offered to suspend or reduce duties and tariffs on imports and to make certain third world products duty free. Fifteen industrialised countries, including EEC, are applying the new trade concessions from January 1 on a number of tropical products.

**UN Fund, UNCTAD and World Debt:** The Board of Governors of the UN special Fund established in 1971, to help the countries facing serious balance of payment difficulties (see Vol II No. 5 pp 9-10) met in January and failed to agree on any action to activate the Fund. It has only \$ 22 million, \$ 11.6 million from Venezuela and \$ 9.9 million from Norway. The industrialised countries are opposed to the Fund. The same situation faces the \$ 6 billion common fund proposed by UNCTAD at Nairobi to help developing countries with their exports. This Common Fund is proposed as a means of stabilising commodity markets and to give developing countries a better return for their raw material exports. At the preparatory meeting called by UNCTAD last December, there was no support from any of the developed countries for the Fund. Meanwhile the world debt of the developing countries is increasing. The World Bank computation of time profile ratios—the future debt service payments as a percentage of debt outstanding—shows that their five year time profile ratio increased from 75 to 79 between 1969 and 1974 and the 10 year ratio from 106 to 124—which means a hardening of the terms of their borrowing.

Their loans from financial markets increased from 11 per cent of their total outstanding debt in 1967 to 24 in 1974. Amortisation of their external public debt in 1974 was \$ 9 billion and interest \$ 4.5 billion, so that they needed \$ 13.5 billion merely to honour their existing obligations. In 1976 this figure rose to \$ 15.5 billion. The net transfer of financial resources—that is loans minus amortization and interest charge—was in nominal terms \$ 4.22 billion in 1970, \$ 11 billion in 1974, but when adjusted by import price index becomes \$ 4.5 million in 1970, \$ 7.6 billion in 1973 and falls to \$ 7.1 billion in 1974. The Bank warns that commercial borrowing from advanced countries' markets (Euro-dollars) by the developing countries make their debt servicing more onerous—shorter repayment period and higher interest rates. All this is the background for the timely suggestion of the World Bank President for the Willy Brandt Commission.

**OPEC:** In January, OPEC announced 25 year loan agreements with 24 developing countries amounting to \$ 111.65 millions. India gets \$ 21.8 million. The total OPEC Fund is \$ 200 billion, the rest is being distributed in the coming months. Iran reports prospects of a reduction in her exports by 38 per cent since she and 10 other countries raised their oil prices by 10 per cent. It estimates that bids by foreign countries to cut back on their direct purchases of Iranian crude could cost Iran \$ 2 billion in lost export incomes. In fact by mid January, the government agreed to a \$ 500 million loan from American and European banks to meet its budget deficit. It is planning to switch to a barter system in its oil dealing and to reduce its foreign aid. Kuwait, Algeria and Indonesia have put up their prices by the agreed 10 per cent. Venezuela reports that its daily production

fell by 2.44 per cent in 1976 but its income from oil exceeded its budget figure at \$ 6,395 million. Saudi Arabia and UAE have increased their prices by 5 per cent and the final equilibrium of oil supply and demand will not emerge for some time.

**UN Water Conference :** The United Nations Water Conference to be held in Mar Del Plata, Argentina from 14 to 25 March will deal with water co-operation and water management and technology. A preparatory meeting for this conference was held in New York in January and addressed itself to the quantitative problem of the lack of adequate water and the qualitative aspect of water of the right quality. This requires new technical, administrative and juridical way of dealing with the problems, calling for a well organised world exchange of information. Access to safe water, joint construction of water and irrigation projects, co-operation in counteracting desertification, preparation and review of national and river basin plans, establishment of centres for water resources technology at a regional and sub-regional level are some of the areas that are to be investigated. The underlying theme of the conference is the provision of water for all people. Before resorting to the new technologies of desalination, cloud

seeding and evaporation suppression, considered use and efficient management of existing water supplies should be the object of government policy and public awareness, alongside of co-ordination of and co-operation in water management at all levels.

**World Food :** The US Department of Agriculture confirms the forecast of good harvests and foodgrains output for 1976-77 (see last issue p 92). The 1976 foodgrains output is estimated at 1,320 million tonnes—that is a 3 per cent increase. Both industrialised and developing countries shared in the increases, the Soviet Union recovering from the 1975 drought by increasing its grains production by 15 per cent. Due to a decline in total grain consumption, carry over stocks at the end of 1976 will increase from 10 to 13 per cent of world consumption. Estimated world wheat output increase is 15 per cent and that for coarse grains 8 per cent. The International Wheat Council also assesses the 1976 world wheat production at a record 411.5 million tonnes, which is 59.4 million tonnes more than the 1975 production. It also estimates world wheat trade in 1976-77 at 52 million tonnes. These estimates indicate adequacy of world wheat supplies and the warding off of the threat of famine for some time.

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## II. Agricultural Development

### **Paddy and Foodgrains Production :**

The year's target of 83.90 lakh tonnes of foodgrains and pulses production may

not be attained because of the unsatisfactory South West monsoon (see Vol VI p 488). This target comprised 63 lakh tonnes rice, 18 lakh tonnes millets and

2.90 lakh tonnes of pulses. In addition, the targets for commercial and non-food crops were: cotton 4.55 lakh tonnes, sugar (gur) 135.0 lakh tonnes and oil seeds 13.43 lakh tonnes. But these targets are being revised, as the major water source is the North East monsoon which has been copious as noted in the last two issues (See Vol VII pp 1 and 73). Because of these rains, 7 lakh acres were brought under samba cultivation in Thanjavur district, in Tiruchi district in addition to 51,000 acres under kuruvai, 15,000 acres are under a second crop cultivation, in Pudukottai an additional 10,000 acres are being brought under navarai in January, mainly using water from 6,000 tanks in that district. Some change in the cropping pattern is emerging in the Thanjavur district as a result of the Cauvery, Vaigai and Tambaraparani systems not functioning this year. In place of the total concentration on water demanding paddy, in Thanjavur district 30,000 acres are being covered by groundnut, cholam and ragi, 1.95 lakh acres by semi dry paddy and 28,000 acres with tank fed paddy. The Chidambaram taluk, out of 40,000 acres, 20,000 acres are under kuruvai and the rest divided between a samba crop and pulses cultivation. In Tiruchi district where the tail enders have not received adequate water, semi-dry paddy is to be grown. Already groundnut has been harvested from over 1.75 lakh acres of manavari lands and a second crop of coriander, cholam, cumbu, and other high yielding millets, is being cultivated. In the Cauvery areas of the district, 30,000 under yielding millets, 6,000 acres under pulses, 35,800 acres under oil seed and 8,000 acres under cotton, chillies and coriander is being developed as an alternative cropping pattern. In Tirunelveli district

which had good rains and where the tanks were filled, after samba the farmers are to grow light duty crops like millets. In Pudukottai the rainfed groundnut, ragi, cholam, varagu and pulses are coming up very well and 10,000 acres are under double cropping with gingelly, cholam, black gram and horse gram along with groundnut fallows. 5,000 additional acres are being brought under cultivation in this district in the Alangudi and Arantangi taluk following good rains. On the procurement side, FCI and the State Civil Supplies Corporation have procured 42,235 tonnes of paddy as levy deposit during kuruvai and samba procurement as the latter got under way in late December. The freeing of movement of rice within the State has diminished smuggling into Kerala. On the other hand the government closed 24 out of 29 procurement centres in North Arcot around mid January as only 479 tonnes of paddy flowed into these centres as part of the small 2,304 tonnes procured from wholesalers in the district. Here the free movement of rice may have led to considerable movement without valid permits which enabled the wholesalers to evade the levy.

### Research Results :

In January the Tamil Nadu Agricultural University released 7 new varieties of various crops. One was 00.40 paddy called Rajarajan with a duration of 170 days, blast resistant, yielding 7 tonnes per hectare, which will replace 00.25 in Thanjavur, Coimbatore, Tirunelveli and Kanyakumari and produce 10 lakh tonnes of additional production over 5 lakh hectares during Thaladi and Samba. A second variety is 00.21 cholam with a duration of 105 days and the possibility of 3 crops per annum, pest resistant, yielding 6 tonnes per hectare with high straw yield

in replacement of COH-2. A third variety was 00.6 cumbu yielding 2 tonnes per hectare in 95 days. The variety is susceptible to ergot and should be controlled by adjusting the sowing time to winter and appropriate plant protection action. Another variety is the 00.3 red gram which can be grown in rainfed lands, resistant to root rot and bores and yields 60 per cent higher output than 00.2. A new variety of lablab CO-9 can be grown all the year round and yields in 120 days 7 tonnes of green pods. 00.2 Amaranthus is a quick gram yielder in 25 to 30 days of 10 tonnes of greens per hectare. A new chillies variety Madurai 1 which can be grown in Madurai, Ramanathapuram and Tirunelveli is of 200 days duration and yields 18 quintals of pods per hectare. In order to improve the State's supply of cattle fodder, the University has started a Department of Forage crops to breed new varieties and formulate the technology to grow new crops. A study of the prolific rice yields in the Punjab which averages 10 tonnes per hectare compared to the All India average of 4 tonnes shows that it is the management input in the Punjab which accounts for the higher productivity. The establishment of the optimum number of hills in the fields and the spacing of the plant population are part of the management requirement. The Koilpatti Experimental Station released in January a new variety of sun-flower (an oil seed crop) HA-115/1, with an 85 days duration and can be grown in all seasons in both rainfed and irrigated lands with a yield potential of 1,000 kg. of seeds per hectare, under rainfed and 2,000-2,500 kg. per hectare under irrigated conditions. It can be grown as a border crop in irrigated groundnut, chillies and cotton and when mixed in cropping with maize, cumbu and cotton improves its seed setting. Further to the analysis of the State and the South's coconut production in the

last issue (p. 94), the international symposium identified the importance of the potash element in the fertiliser application to coconut trees. Research by the Indian Central Coconut Committee had already established the fact that the plant removes more of potash than nitrogen or phosphorus from the soil and an adequate replenishment of this nutrient, potash, improves both the nuts yielded as well as the copra content to the extent of 44 per cent. This result is important because potash consumption for coconut trees in a State like Kerala is around 5,000 tonnes whereas from the point of the optimum application it ought to be 2.5 lakh tonnes. The Central Mango Research Centre has on the basis of its studies and experiments prescribed the amount and timing of the pesticide spraying to control the mango hopper pest, as well as the powdery mildew disease. It has also identified 2 other important pests, phomo blight and beetles, and has prescribed a spraying programme to control them. The profitability of growing the new hybrid and Digvijay varieties of cotton has been examined by the Institute of Co-operative Management and its conclusion is that, as the prices of inputs for hybrid 4 have increased steeply and the yield of Digvijay has declined while its cost has increased, there is need both for an increase in the price of lint and reduction in the prices of inputs, if these varieties used widely in all cotton growing States, as both rainfed and irrigated crops, are to spread in the area of cultivation. The State Department of Agriculture has started a Central sponsored 3 year operational research project on water management in Madurai district in a block of 400 hectares in the Periyar River command area. The research will cover the means of reducing the quantum of water used in this paddy growing area, the possibility of growing other crops with a view to higher pro-

ductivity per unit of land water, the problem of percolation of water in the field and seepage in transit from canals and irrigation timing for different crops. The Department has already a water conservation project covering 10,000 hectares in Thanjavur and plans to extend this to water management of irrigation tanks and its best utilisation on command area development basis.

### **Kitchen Garden and Farmers' Training :**

In order to increase vegetable production in all the towns in the State, a massive Thaipattam vegetable campaign has been launched in January. 16 kinds of vegetable seeds as well as seedlings of chillies, brinjal and tomato are being distributed along with the necessary fertilisers and pesticides. Seed distribution centres, milk booths and schools and colleges are being used as sales agents along with a plant protection squad to safeguard the kitchen gardens from pests and diseases. The Department also announced in January that a farmer's training centre is being started at the State Seed Farm at Kudumianmalai to train farmers in growing the new high yielding and hybrid varieties of groundnut, black gram, green gram, horse gram and choleam, their combination and rotation so that double cropping can become a normal cultivating culture in the dry land areas of the State.

### **Cloves and Forestry :**

The first cultivation of cloves in the State is being undertaken by the Forestry Department over 10,000 hectares in the Kanyakumari district. The crop is being gathered in January at the stage between flowering and fruiting and is developing

into a major revenue earner. The Department is extending its cultivation over 1,00,000 hectares and hopes that this will replace the import of cloves from Sri Lanka. The Department is taking up extension forestry in combination of its drive for farm forestry in Panchayat lands and PWD fallow lands. Under its 57,000 hectares of farm forestry, the Department is earning Rs. 27 lakhs per annum. The Turaiyur Panchayat Union raised Karuvelam, a farm forestry and the first cutting yielded Rs. 85,000. Special forest officers are pushing ahead with farm forestry in Tiruchirapalli and North Arcot and South Arcot districts and might soon extend the system to all districts in the State.

### **Poultry :**

The Indian Veterinary Research Institute, Izatnagar has developed new high yielding poultry strains. Their egg laying is around 220-230 per year, which exceeds that of the exotic strains—the white leghorn and the black minorca yield 189-220 eggs. The Institute has also developed a pure line boiler which can gain 1.5 kg. in body weight in 10 weeks and is about to be commercially exploited. The Institute is raising a variety of Japanese quails and means of preserving poultry meat for more than a week without refrigeration. It has developed and standardised a method of making chicken sausages, using the meat of unwanted birds and has successfully marketed the sausages.

### **Tea :**

Indian tea production in 1976 is estimated to have increased by 25.5 million kg. with the North contributing 22 million kg. South Indian production

which was lower than its 1975 upto June, later picked up and the end of the year output is estimated at 3.5 million kg. above that of the previous year. With increased domestic consumption, exports in 1976 are expected to be a little less than 1975 exports of 225 million kg. but with the increased unit price, the export earning target for the year will be reached. World tea production by October 1976 increased by 4.2 million kg. despite the drop of 20.5 million kg. in Sri Lanka production and by the end of the year the increase will be 17.0 million kgs. India, Bangla Desh, Kenya and Malawi achieved large increases with marginal declines in Uganda and Tanzania. Prices, both internal and international, have been ruling high; there is need for a further development of the country's tea industry through enhancement of the subsidy for replantation and new plantation and special incentives for larger production of value added types like soluble tea, instant tea and tea bags. The prospects for 1977 are good both in terms of production and prices.

### Coffee :

Coffee production in 1975-76 was 84,000 tonnes. Domestic consumption rose slightly to 38,000 tonnes. Exports totalled 59,386 tonnes, earning Rs. 66.65 crores. For 1976-77 the quantum of exports will not be above that of the previous year because of the reduced production, but because of the world coffee shortage and the unusual spurt in prices (which lead the government to increase the export duty to Rs. 1,300 per tonne, see Vol VI p 589), the export earnings might rise to Rs. 70-75 crores. Action is needed to expand coffee production over the one lakh acres which have been identified two years ago (see

Vol VI pp 654-655). Prices both internal and external will soon begin to drop. Internally the Board's pool action in January showed a sharp drop by Rs. 1-1.50 per kg. With the normalisation of production in Brazil the international prices will also begin to fall. In addition it is reported that the Robusta Coffee plantations are being attacked by mealy bugs to the extent of one third lakh acres of the plantations. The production loss is estimated at 3,000 tonnes which is over Rs. 4 crores in foreign exchange. ICAR and the Coffee Board scientists are advising on the prophylactic measures against this disease. There is a case for starting a coffee Research Institute in the Wynad area to analyse and deal with local problems like these. On the world coffee price front, prices began declining in January because of the Brazilian recovery with some added effect from the American coffee consumers boycott.

### Rubber

The Kanyakumari rubber plantation covering 4,000 hectare yields 1,000 tonnes a year. It is the largest rubber estate in the country and its earnings have amounted in the last few years to Rs. 58 crores. The government has not yet in January revised the statutory price of rubber as the cost account study has not yet been completed. The October low price of Rs. 520 per quintal improved to Rs. 615 in November but has fallen to Rs. 570 again in January. In the meanwhile the government has decided to export all supplies above a 3 month stocks. Apart from STC, industrial producers and consortium of producers have by January exported 7,000 tonnes and will by March have exported 12,000 tonnes. At the international level, under the auspices of



UNCTAD, delegation from 54 countries including India meeting in Geneva in January are discussing the establishment of an international rubber agreement. The meeting has a price stabilisation pact framed by the producing countries which the consuming countries are being asked

to adopt. Another document under discussion is an UNCTAD document advocating a consumer—product agreement, with a reserve buffer stock pile of 4,50,000 tonnes, in place of the 1,00,000 tonnes stock in the first pact document.

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### III. Industrial Development

#### Neyveli:

As noted earlier, the visit to Neyveli of the Union Deputy Minister for Energy in January was the occasion to review both the second mine cut project and the proposal for establishing the Southern Super Thermal Plant. On neither was much progress made during the visit. It is hoped that the information and documentation provided to the minister would lead to a further forward move in regard to both projects. The power situation in the State for the future and in fact for the region as a whole demands early approval of the second mine cut and the location of the super thermal plant at Neyveli.

#### ICF:

The Integral Coach Factory is to manufacture the new 23 metre 80 seater light weight sleeper coach in order to improve and maximise facilities for travel. For 1977-78 the Factory will manufacture 670 coaches. Its export orders are expanding.

The Tanzanian order for coaches has been completed and despatched and the Uganda order for 20 coaches is being completed. Other African countries are negotiating with ICF for the quality coaches that it is producing.

#### SIDCO :

SIDCO is planning to construct 1,000 sheds in rural and backward areas of the State to provide infrastructural facilities for the spread of small industries in those areas. The spurt in small industries referred to in Vol VI p 657 and Vol VII p 24 continues. Out of 10,500 new units that were registered recently 4,000 had already received aid from the State Bank of India. SIDCO is also working out an interest subsidy scheme to help small units affected by high interest rates charged by banks. The subsidy will cover the difference between a reasonable rate that they should pay and the rate charged by the bank. While units located in backward areas pay an interest of 9.5 per cent, those in other areas are charged

16.5 per cent. One of the causes of sickness of small units is this high rate of interest, and action is needed to meet this problem in effect by lowering the rate and not simply arranging for more loans. SIDCO is thinking of a normal rate of 12 per cent, above which its subsidy will become operative. The Union government is considering two actions to assist small units. One is to amend the Industrial Development and Regulations Act to include some chapters in the Act to ensure protection to the small scale sectors. The other is to implement the proposal for a National Equity Fund recommended by the Small Scale Industries Board Committee for augmenting the equity base of small units, so that they can avail themselves of bank finance to a larger extent. It will provide soft term loans (at low rates of interest which is one of the urgencies as referred to earlier) and repayable after a grace period. It would also offer special facilities for reducing the margin to viable units in need of diversification and expansion, on the basis of the State of technology and market requirements.

### **Cement and Rice Mills :**

As noted in the last issue (p 99), TIDCO's Ariyalur cement factory which will go on stream in September 1978 was the scene of a foundation stone laying ceremony in January. Ariyalur is a backward area in the Tiruchirapalli district and the 5 lakh tonnes factory will use 40 million tonnes of cement grade limestone which is available locally in the Ariyalur-Senthurai area. It will provide employment to 1,200 local persons and make a definite contribution towards the development of this area. With regard to the modern rice mills in the State also referred to in the last issue pp 99-100, better milling methods will have 2

important effects. First they will increase the outturn of raw rice by 5 to 7 per cent and that of parboiled rice by one per cent. Second they could help with the problem of edible oil. As every tonne of paddy contained about 25 kg. of edible oil, normal milling should recover 10 to 15 kg. of oil. The larger mills are milling 60 lakh tonnes annually today, so that atleast 60,000 tonnes of oil are being removed and wasted. On the other hand, of the 8 solvent extraction plants in the State which have facilities for extraction of bran, only four are in full use. Now every conventional mill can and should produce 20 per cent of oil as a minimum. If they installed stabilisers, the oil could be extracted and processed for human consumption. In addition to the FCI and State Civil Supplies Corporation which are producing bran with 25 per cent oil in their mills, the Paddy Processing Research Centre at Tiruvarur has demonstrated that every conventional mill can produce bran with 22 or 23 per cent oil.

### **Electronics Corporation :**

The State government has decided to set up the Tamil Nadu Electronics Corporation in February with a capital of Rs. 3 crores. The Corporation will provide private firms and entrepreneurs with infrastructures, testing and development facilities and data and information systems. With the help of the Electronics Commission, a blue print for the sector has been established setting forth the location, the specific units of production and the organisational pattern.

### **Co-operative Credit:**

16 Central Co-operative banks at the district level and the Tamil Nadu State Co-operative Bank report the disbursal of

Rs. 973.07 lakhs as jewel loans from April 16 to November 30, 1976, Rs. 7.92 lakhs as consumption loans and a total of Rs. 6,611.48 lakhs as short term and medium term loans to agriculturalists. Intensive deposit mobilisation had led to total deposits of Rs. 12,785.66 lakhs. The State Bank has introduced 33 deposit schemes offering a total of 888 investment plans.

### **Binny :**

In response to the damage suffered by the B and C mills reported in the last issue (p 100), IDBI reports that immediate requirements of the mills have been established at Rs. 5 crores and the IDBI will provide it with Rs. 3 crores. The State government is considering deferment of its electricity charges of Rs. one crore and the State Bank of India is to advance Rs. one crore. Now the government has to persuade the mill management to rationalise the wage structure, agree to the appointment of full-time functional directors from the financial institutions and agencies, and implement the modernisation programme which had been earlier drawn up at a cost of Rs. 20 crores and which is even more urgent now must start. The first phase of the modernisation programme will involve Rs. 16 crores. The government is concluding its discussion with the management and labour unions to arrive at decision for an early reopening of the mills.

### **Textiles :**

RBI held discussions in mid January with the South India Mill Owners' Association in Coimbatore in order to decide on the package of measures needed to revive the mills. The policy being

evolved will be within the limits of the credit policy outlined in the earlier section of the issue. One major problem faced by the industry identified in the talks was the price of cotton which the government and the Cotton Corporation of India are acting on. Without making changes in the directive that the non-banking companies should adjust their deposits in excess of 15 per cent by June 30, RBI in considering the credit needs of the mills is taking into consideration the inflow and outflow of their funds and their overall financial position. The case of individual mills in distress will be reviewed and action taken with regard to each separately. The State government has declared the Cauvery Spinning and Weaving Mill, Pudukottai a relief undertaking for a period of one year from January 4. The 30 year old mill which has an installed capacity of 31,200 spindles and employs 1,124 workers was closed for over a year. To restart the mill and prevent providing relief to the unemployed workers, the mill was taken over in January by the Tamil Nadu Textile Corporation.

### **Handlooms :**

Handloom weavers in the State still face serious difficulties. Of the 5.56 lakh handlooms with 24 lakh weavers producing 600 million metres of cloth per annum of the value of 150 crores, only 9.73 weavers are actively employed in the industry. The others are unemployed and subject to various forms of deprivation and exploitation. There are 770 primary weavers co-operatives covering 1.60 lakh handlooms. The rest of the 3.96 lakh looms are in the private sector and 9.7 lakh weavers have to buy the raw materials, finish the goods and sell their products themselves. About 47.8 per cent of the weavers work on their own looms,

get their raw materials from master weavers and work for agreed wages, and 20.7 per cent work in handloom factories. In the silk industry, mainly in Kanchi, there are 20,000 weavers. The majority of weavers are exploited by middlemen and the spread of the co-operative movement is slow but is their only salvation. Apart from the Karur and Erode and the 32 weavers colonies, what is needed is for increasing the co-operative coverage from the present 30 to 60 per cent, forming a net work of new co-operatives in all important weaving centres, and setting up 50 industrial weavers co-operatives to employ 5,000 weavers each—who do not own handloom. The 20 point programme in relation to weavers should push forward in this State on these lines.

### **Knitting Industry and Handicrafts :**

SITRA has launched a multiprolongad drive to develop further the growth potential of the knitting industry and diversify its production to save it from the crisis facing it. As a result of outdated technology and competition from technologically advanced units in Bengal, Punjab and Maharashtra, 50 per cent of the 2,000 knitting units have closed. SITRA has established a knitting division to help the units through training them in the latest knitting technology and diversifying their product by using different types of yarn and various finishing treatment. This may save this important cottage industry. With regard to handicrafts, a Commerce Ministry Committee has recommended the creation of specialised agencies like SFDA and MFALs, setting up development centres and promotion of service type co-operatives to help handicrafts development. Credit to this sector should be treated as is the case for a backward

district, calling for an annual outlay of Rs. 15 to 20 crores and the concentration of each State on selected crafts, so that they can be provided with improved tools, designs, packaging, quality marking, marketing and training by concentrating on areas with 30-50 families of craftsmen. These recommendations should be implemented by the State government.

### **Leathers :**

Exports of leather and leather products for the 9 month period, April to December 1976, were Rs. 22,636 lakhs, an increase of 60 per cent over the 1975 nine months exports. Foot-wear components exports increased fastest at 304 per cent, followed by finished leather 173 per cent, leather foot-wear 139 per cent, leather goods 74 per cent and bone, horn and hooves 65 per cent. The Union Minister for Civil Supplies suggested in January the institution of a Leather Development Corporation for the development of the leather industry in the State, which accounts for 75 per cent of the country's leather production. The target for leather exports in 1978-79 is Rs. 450 crores, and it is estimated that for 1976-77 exports would amount to Rs. 300 crores, 50 per cent of which is from this State. CLRI Madras had identified 52 R and D projects, for the improvement expansion and quality production of leather goods and foot-wear at a cost of Rs. 2.54 crores, with a mere Rs. 43 lakhs as the foreign exchange component. The projects identified are better use of raw hides and skins, micro biological problems, profitable use of blood from slaughter houses, treatment of tannery wastes, simplified chrome tanning systems etc. There is a proposal from the Export Promotion Council for finished leather and leather manufacturers to increase quota restric-

tions as the only means of tanners and leather goods producers obtaining raw materials which are still exported out of the country. Export duties do not cut back on exports, because foreign impor-

ters anxious for our leathers are willing to pay the export duties. This is a rather important issue which merits further full investigation.

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## IV Education, Science and Health

### Educational Reform :

The 10+2+3 reform structure for the State is being prepared carefully. The Board of Higher Secondary Education set up 32 Committees to frame the syllabus for the + 2 stage, to complete their work by the end of January and circulate the results among all, for further study and finalisation by the end of the March. At the end of January, the Board approved the courses to study and the schemes of examination. Part I will be mother tongue, Part II English on both of which 25 per cent of time will be spent, and Part III the academic or vocational stream. 19 subjects are offered in the academic stream in science, humanities and in arts and advanced languages. In the vocational stream, the Committee on Vocational Education is drawing up the syllabus and in addition to it the vocational stream student will have to take one subject related to his vocational specialisation from the Academic stream. There is to be a public examination at the end of the second year covering the portions of the second year study; at the end of the first year there will be internal

examinations. Kashmir reports, its educational reform includes (a) selection of 50 schools which are given special assistance for improvement in the teaching of English, Mathematics and Science, (b) university and school examination reform, (c) reduced college intake by 40 per cent, (d) evening and remedial classes for academically weak students, (e) applied courses like electronics, fruit preservation, mushroom cultivation, interior decoration and business management as part of the undergraduate course, (f) use of NCERT curriculum for 10 year school, (g) in service training for 8,000 primary Science teachers and 3,000 English teachers, (h) 6 month correspondence course plus one month contact training for plus 2 teacher through the Regional Training College, Ajmer, (i) B.Ed. correspondence course to be run by the University of Jammu and Kashmir and (j) need based work programmes in 132 selected secondary schools as a means to make them universal in all schools within 2 years. The Union government has clarified the 3 language formula for schools, involving first language as the mother tongue, second language as Hindi or other Indian language for Hindi States

to be begun at Class VI or earlier and English to start at Class VI or earlier. At the University level, Haryana had directed its 120 colleges to set up planning forums so that teachers and students can know and actively participated in the Plan programme at the district level. Also it has widened the scope of NSS to make practical use of the science laboratories of the colleges for modernising agricultural operations. Jabalpur University reports that it has cleared the back log from 1972 in the award of degrees, which has involved writing out and distributing 30,000 degrees. It has organised non-formal education classes for non-residents and compensatory coaching for scheduled caste and tribe students. The stipends under National Merit Scholarships which in this State amounts to over 1,000 awardees have not been disbursed for nearly 3 years because of the correspondence between the Union government and the State government as to the responsibility for financing. The result is that the students have suffered from non-receipt of the stipends. The State government announced in January that the question has been settled and the 75 per cent of payments accruing for scholarships renewed from the 1970-71 amounting to near 10,000 scholars have now been settled. This is a grave handicap to the students and all cases should be cleared and stipends paid on the first of every month.

### **Non-Formal Education :**

UNESCO and the Union Information and Broadcasting Ministry are organising 6 regional seminars at Bhopal, New Delhi, Lucknow, Bangalore, Bombay and Calcutta on developing a communication strategy and motivational approach to

promote rural development. The Bhopal seminar was on integrated use of folk media and mass media in family planning communication programmes. The Punjab Agricultural University is starting a Rural Youth Volunteer Corps to intensify extension contact of the University with farmers in the State, and enlist more active youth participation in agricultural development work. 1,500 young farmers are being selected to form the corps and to be made responsible for agricultural improvement work in their own villages. These are paid extension workers and their work will be monitored by maintaining a green book at the University. At the national level, AIR announced plans to set up a separate national broadcasting channel with its own net work of super power transmitters to broadcast programmes of national importance. Also Madras is to be the first station to embark on FM broadcasting by March.

### **Technical Education :**

In a review of agricultural university education in January, it was pointed out that on the one hand the present agricultural university output provided only one veterinary graduate, one home science graduate and 10 agricultural graduates per district and on the other, the problem of unemployment of agricultural graduates is reported. The unemployment was traced to a mismatch between employment and educational policies. To correct the educational policy and content, it was proposed to produce non-elite agricultural graduates with motivation for self-employment and competence to resolve practical problems through: (a) learning by doing which involves each University having adequate farm lands, animal sheds and fish ponds to enable students to learn by doing,

(b) earning while learning by providing groups of 4 or 5 students a 2 hectare farm where students can learn all agricultural operations and projects like soil testing, tractor and implements repair, seed production, raising community nurseries of rice and tobacco, poultry production and aqua culture in which the University will provide credit and other inputs and the enterprise run by students on commercial terms. This would include University agro-industrial complexes where students will learn and earn through the integration of production with processing and marketing, (c) participation in production and protection campaigns which also students should organise, and (d) a system of apprenticeship before the final year in the University through serving for one crop season in a State or private farm. This programme will produce the kind of agricultural trained personnel that the farm economy needs.

## Science :

At the 6th session of the Indian Science Congress in early January in Bhubaneswar the emphasis was on developing the country's R and D on the basis of the country's resources endowment, needs and priorities. The objective of self-reliance demands that scientists should develop an agricultural R and D wholly based on indigenous knowledge and resources harnessed to appropriate administrative systems. There was also at the parallel Indian Science Academy meeting emphasis on promoting and financing pure science as the only certain base for developments in applied science. The pace of development in the pure sciences depends at the extent to which young talent is drawn into this field, provided with an enrichment for its development, and follow up activities being carefully planned and

properly implemented. In the Fourth Annual Plan outlined in the earlier section the Planning Commission has provided Rs. 2.69 crores for R and D—Rs. 1.55 crores for large and medium industries, Rs. 38 lakhs for small industries, Rs. 40 lakhs for khadi and village industries, Rs. 36 lakhs for the coir industry, Rs. 2 lakhs for NPC, 11.50 lakhs for ISI, Rs. 1.2 lakhs for the 'total energy' concept and Rs. 2.23 lakhs for boilers and furnace operators training programme. The Union government also announced that it will be amending the industries (Development and Regulation) Act to levy the Research and Development cess at the enhanced rate of one per cent of the value of goods produced by the scheduled industry (from the present two annas per cent of the value of goods). The rate will vary with different industries. CSIR reports that its National Laboratories have developed processes which can be used for village industries and for bettering rural housing, sanitation and transportation. CMERI has developed a 10 HP water cooled power tiller to facilitate the Japanese method of cultivation in the country. It has designed a prototype where water hyacinth—a troublesome weed—can be used for gas and has designed a domestic oven which can use coal dust. RRL at Hyderabad has developed a low temperature carbonisation plant for producing smokeless domestic fuel from coal. CBRI has developed building technologies which eliminates use of cement, steel and other scarce materials in housing construction as well as 2 processes for producing mortar and plaster from rice husk and lime sludge. It has developed corrugated roofing sheets from wool coir fibre. NEERI has demonstrated that sewage mixed with water and fertilisers can be used as a plant nutrient. It has developed a process for making chloride tablets for treatment of drinking

water. CEERI, Pilani is working on development of silicon solar cells to convert solar energy into electrical energy. CDRI, Lucknow is nearing completion on developing an oral contraceptive and a contraceptive cream. CSMCRI, Bhavnagar has developed a solar still device for converting saline water into fresh water. NCL has developed a method for high yielding cabbage based on tissue culture. These processes should now be commercially exploited. Discussions are under way to set up a national geophysical company in the public sector which will under contract undertake short and long term surveys for ONGC, GSI, Central Ground Water Board and for the State governments, and process and interpret the data and submit reports to governments—both Indian and foreign. The Indian Scientific Satellite Project Director reports that work on the electrical engineering model of the second Indian scientific satellite is completed as at March, and will be ready for launching from a Soviet cosmodrome in 1978-79. The second stage of work is the prototype model followed by the final stage when the flight model be readied. This second satellite will conduct experimental studies in earth observation in meteorology, oceanography and forestry. As a result of discussions in Moscow between the members of the Department of Space and the Communication ministry and the Soviet experts agreement has been reached on the co-ordination of the satellite systems of the 2 countries, their frequencies, avoiding of interference and the placing of the Indian satellite in the geo stationary orbit over the Indian Ocean where there are already a large number of satellites. The Indian Domestic Communication Satellite (INSAT) will be co-ordinated with the Soviet system COMSTAT and

the International Tele-communications Satellite Organisation (INTELSAT).

## Health :

In the State, the integrated child development services scheme sponsored by the Union government was inaugurated in January to provide pre-school education, nutrition supplement and health check up for children, and care of nursing and expectant mothers in the slums in Madras, the Thalli block in Dharmapuri district and Nilakottai block in Madurai district. In Family planning, the State has exceeded the five lakh sterilisation target for the year by the end of 1976, and is likely to add one more lakh before the end of March, the financial year. An experiment with rats by the scientist in the Madras Medical College has demonstrated that an increase in numbers leads to unrest, tension and violence. The need to popularise sterilisation in the rural areas among the illiterate masses and the desirability of making sterilisation compulsory after 3 children was urged at a 2 day seminar on family planning in Madras. The All India Siddha Medical Practitioners Conference in January in Madras has called attention to the 15,000 siddha medical practitioners in rural Tamil Nadu, and the 400 in government dispensaries and the 5,000 registered practitioners who could propagate the small family norm in the villages. Over 100 formulas of anti-fertility drugs are available with the practitioners of the siddha system, which should be researched and the effective ones propagated through the rural areas as part of the family control programme. With the revival of malaria where 4.5 million cases and 19 deaths were registered in 1976, and a virulent form of a malaria has broken out in 11 States including Tamil



Nadu covering a population of 119 million, the Union government had decided to launch an anti-malaria campaign on a war footing. The Union government is supplying insecticides, reorganising the existing malaria units in conformity with district boundaries, moving the laboratory technicians to PHCs, and providing

entomological support to the programme by redistributing the existing 72 zonal medical officers and their staff. What the campaign needs is wholesale and complete local community involvement—Panchayats, teacher, voluntary and youth organization.

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## V. Employment

As at September 1, 1976, the total number of unemployed registered with employment exchanges was 95,35,200. The largest number of unemployed is reported from West Bengal at 17,05,700. A CSIR analysis of West Bengal as at July 1973 shows that among the educated unemployed, engineers (graduates and diploma holders) were 17,000, science graduates and post graduates 58,000, and arts graduates and post-graduates 1.5 lakhs. The scheme for central investment subsidy under which 101 districts and areas out of 246 backward districts and areas were chosen (on the bases of 6 districts for industrially backward States and 3 for others) and under which 15 per cent of the fixed investment is reimbursed as an outright grant in order to generate employment in these areas was proposed to be replaced by a scheme linking subsidy with the employment generated in the areas and not simply the amount of fixed capital. This has run into opposition by some States which point out that the non-labour intensive industries would be handicapped by the change. The

Union Industry ministry has set up a committee to further examine the replacement scheme to ensure that the subsidy leads to increased employment. The Union labour ministry reports that in 1976-77 with 20 million industrial workers employed, the number of mandays lost was 8 million, with no loss in public sector undertaking compared to 70 million mandays lost in 1974-75 and 17 million in 1975-76 (see Vol VI p 663). 80 per cent of the 8 million mandays lost were in 3 private sector industries—jute, textiles and engineering—due to lockouts and closures. It also reports that 40,000 industrial workers were given training in various workers educational centres who in turn trained 20 lakh workers. As at 31 December 1976, out of 1,55,928 apprenticeship places, 1,54,236 were filled, including 50,876 for those from scheduled castes and tribes, physically handicapped, minorities and women. From January 5, the scheme for workers' participation in industry at the shop floor and plant level was applied to commercial and service organisation. From mid January the

Union government liberalised the Bonus Act under which companies which make a net profit but do not have an allocable surplus will from 1970 pay a flat rate bonus of Rs. 1,001 per employee. The State government fixed as from February 1 1977 minimum wages for different classes of employees in 20,000 hotels and restaurants. The minimum wage in the 3 zones into which the State has been divided varies from Rs. 40 to Rs. 120 per month plus food and where food is not supplied an additional Rs. 2.50 to Rs. 2.75 per day; wherever higher wages

are being paid, they will be continued. Also in January, in addition to the reopening and takeover of the Cauvery Spinning and Weaving Mill, the government arranged for the re-opening of 4 more closed mills in Coimbatore,—Janardhana, Bhavani, Ravendra and Madhu spinning mills. In the case of the last two, the government provided the necessary financial support and appointed its representative on the Board of Directors. The unemployed workers in all five mills are now back to work.

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## VI. Other Items

### Madurai University Decennium:

Madurai University celebrated its 10 years anniversary on January 3 to 5 in the presence of the Adviser and the Vice-Chancellors of the 4 Southern Universities. There were colloquia on Science in the service of the nation, seminars on Tamil development and the establishment of a Tamil Academy and opening of a weaving centre in the adopted village. It was an occasion for a review of the first 10 years of the University during which period the University pioneered many reforms and a forecast of the tasks ahead in the coming Decennium.

### IUACE:

The Indian University Association of Continuing Education held its annual

meeting and a one day seminar at the Tamil Nadu Agricultural University on January 16 at which the role of University in non-formal education was defined. There was general agreement that non-formal education opened up important vistas to supplement and correct the formal system and all Universities should enter this area of education. It decided that for 1977 its programme would be to execute the 2 national workshops left over from 1976 on extension programmes at the North East Hill University, Shillong, and non-formal education resource centre at Tirupathi, organise a seminar for colleges and community development at the University of Jammu and Kashmir, a workshop of legal aid clinics at Bombay University and the publications programme—a directory on non-formal education programmes in the Universities

and the record of the Bombay workshop on colleges and community development.

### **Association of Indian Universities:**

The Association of Indian Universities held its annual meeting on January 17 and 18 at the Tamil Nadu Agricultural University. It was attended by 65 Vice-Chancellors and devoted its 2 day session to a discussion of the role of Universities in the national programme of Integrated Rural Development and the further promotion of youth services—through NSS, NCC, sports and cultural activities. Here again there was general agreement that Universities must through their scientific resources and youth programmes contribute to the National programme of Integrated Rural Development.

### **Indian Association of Programmed Learning and Educational Innovations:**

The sixth annual conference of the Indian Association for Programmed Learning and Educational Innovations was held in Calcutta from January 9 to 10. The Association bring together some 200 persons—educators, bankers, administrators, and LIC personnel—who are involved in using various innovative methods and techniques in the education system. It started with concentration on programmed learning but has now expanded to include all forms of innovations. It reviewed the innovations in school, University and training programmes etc.

### **Jawaharlal Nehru Award for International Understanding 1975 :**

The 1975 Jawaharlal Nehru award for International Understanding was given to Dr. Jonas Salk on January 10 at Vigyan

Bhavan, New Delhi. Dr. Salk in his acceptance speech laid emphasis on the choice before the world to use science for peace, understanding, and progress, or for destruction. On the outcome of the choice that we make will depend whether or not we will be classed as good and revered ancestors similar to our good and revered ancestors.

### **PSG College of Technology :**

The PSG college of technology celebrated its silver jubilee anniversary during the week beginning January 17. The college has developed into one of the premier engineering teaching and research institutions in the State and is stated to become autonomous from the next academic year. It has added a computer facility to its teaching and research programme and is developing an important programme in rural engineering and technology. Its development during next 25 years will be as fruitful as its present and past achievements.

### **Seminar on Productive Non-Formal Education :**

The Ramakrishna Vidyalaya, Coimbatore organised in mid January a 3 day national seminar on Productive Non-Formal Education. It established a clear description of non-formal education and reviewed its application to the agricultural, animal husbandry, agro-industrial, food processing and post harvest and educational sectors—all with a view to making education productive in the marketing sense and employment oriented.

### **Indo-Soviet Cultural Society and MATSCIENCE :**

Under the auspices of the Indo-Soviet cultural society, a seminar on education

today, was held at the end of January. The problems of the transition to the new pattern,  $10+2+3$ , and the vistas opened by non-formal education for the State and country were reviewed alongside of information of the Soviet system of education. The fifteenth anniversary of MATSCIENCE was celebrated on January 25 when the remarkable qualitative work of the Institute was reviewed. It was also decided that in order to bring the University and the Institute together, a council of Pure and Applied Mathematics would be formed, with 3 members each from MATSCIENCE and the Ramanayagam Institute of Mathematical Sciences and the Department of Statistics to develop further the programme of the two institutes.

### **Punjab Association and Resource Centre :**

On Republic Day, January 26, the Punjab Association of Madras celebrated the Flag Hoisting Ceremony and organised a meeting to review the 25 Institutions from the schools to college and training institutions that it is running. It is one of the voluntary agencies engaged in wide ranging education and training programmes, some of which are addressed to the weaker and poor sections of society. Also at the end of January, the Tamil Nadu Board of Continuing Education Resource Centre and the Directorate of Non-formal Education organised two programmes—a training course for the teachers of the 42 Non-formal Education Centres in the city and a 3 day seminar for the CEOs and DEOs on the non-formal education programme initiated in the 375 blocks of the State by the government. This is the first programme activity of the Resource Centre which has received a grant of Rs. one lakh from the Union government and a matching grant of

Rs. 25,000 from the State government and the Board.

### **University Events :**

In early January, the Department of English in co-operation with the British Council ran a week's seminar for PG teachers of English literature with the same 5 Indian and English Professors acting as resource persons. In mid January the Department of Crystallography and Biophysics ran a National Conference on Crystallography attended by some 50 specialists from all over India and also from other countries. The Department of Physical Chemistry at the same time inaugurated the C. V. Raman lectures for the year with Dr. Walters of the UK as the lecturer. On January 17, the foundation stone for the Post-Graduate Extension Centre in Coimbatore was laid by the Chairman of the UGC at which the development of the Centre as a precursor of the University of Coimbatore was highlighted. From January 19-21, the Avinasilangam Home Science College ran a University workshop attended by 40 principals and 80 professors at which the course content and the scheme or evaluation of the Community and Social Service was laid down for approval by the Syndicate and the Academic Council. On January 28, the Advisory Council of Industry and Trade met in its second session and approved 10 post-graduate diploma courses in fields ranging from handloom supervision and salesmanship to insurance and foreign trade. On January 12, the first meeting of the University Under Graduate Courses Review Commission met and approved a broad framework for restructuring the courses from July 1980 and set up 4 task forces on foundation courses, core courses, application and supporting subjects and co-ordination of

the work of the 3 other task forces and agreed to meet again as a Commission in mid April. The Syndicate met on January 31 and approved the Annual Report to be presented to the Senate and the Quinquennial report to be presented to the State government by the Senate and established the two post-graduate centres at Coimbatore and Tiruchirapalli as autonomous centres.

### **February Madras Development Seminar :**

The paper for the Madras Development Seminar in February "An Approach to the Sixth Plan", by Dr. C. T. Kurien, Professor and Head of the Department of Economics Madras Christian College, Tambaram,

under the Chairmanship of Dr. K. K. Pillai, Director, Institute of Traditional Cultures, Madras, together with a summary of the discussion at the seminar held on Thursday February 24 appears as the first article.

### **Second Article :**

A paper, "Medical Education, Whose Responsibility?", appears as the second article.

### **Book Review :**

A review by Dr. Krishna Rao of the MIDS Publication No. 12, 'Rural Housing in Tamil Nadu' by V. Rangarajan appears in the Book Review section of the issue.

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# 'AN APPROACH TO THE SIXTH FIVE YEAR PLAN OF TAMIL NADU'

By

C. T. KURIEN

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Madras Christian College, Tambaram, Madras*

## I Introduction

1.1 For the past ten years at least I have been fighting for a major re-orientation of the planning process in our country and our State and this paper must be seen as one more step in that essentially one-man crusade.<sup>1</sup> While I have been only a critic of planning at the national level, in 1972 when the State Planning Commission was engaged in drawing up the Perspective Plan, I suggested an alter-

native approach to planning at the State level.<sup>2</sup> In this paper I shall once again outline an approach to planning in the State with special reference to the Sixth Five Year Plan which should, chronologically, start in April 1979. But before turning to the State's Sixth Plan it is necessary once again to indicate what is wrong with the present approach to planning in the country and the State. My critique may be summarised as follows: With the kind of problems we confront

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1. See *Our Five Year Plans* (Bangalore, 1966): "Indian Growth Strategy—A Critique" (Memorandum to the Planning Commission, 1967)

"Planning in India—A Theoretical Critique" *Economic and Political Weekly*, March 1968; *Indian Economic Crisis—A Diagnostic Study*, (Bombay 1969); "What is Growth?" *Economic and Political Weekly* Dec. 1972, "Framework of a Plan to Abolish Poverty in Tamil Nadu" in Malcolm S. Adiseshiah ed. *Techniques of Perspective Planning* (Madras, 1972, to be referred to hereafter as "Framework.....") "The Problem of Plan Implementation" in Centre for Social Research: *Seminar on Problems of Plan Implementation* (Madras, 1974); *Poverty and Development* (Madras, 1974) "Fifth Five Year Plan of Tamil Nadu" in *Bulletin of the Madras Institute of Development Studies* (March, 1974). The first of my writings on planning in India appeared in 1955 as a criticism of the Mahalanobis Plan Frame—See R. J. Chellaiah and C. T. Kurien "Can Mahalanobis Do It?" *Economic Weekly*, Sept. 1955.

2. "Framework....."

and for the kind of objectives we wish to achieve, major changes in the institutional framework of the economy (meaning thereby primarily the ownership of and control over resources) are necessary, but our plans are very vague about this aspect and our policies indicate that we postulate no significant changes in this area. Having said this one must 'recognise that changes in the institutional framework of the economy can be brought about only through political processes and that these processes are even more difficult to 'plan' than the planning of the economic aspects. One may go a step further and concede that even where the will exists to bring about the institutional changes, the procedures necessary are not clear except for those who have certain romantic, although pre-fabricated, notions about "the revolution." Under such circumstances economic planners have two broad alternatives. The first is to play certain conventional planning games because a commitment to planning in the abstract calls for some plan,—any plan—and by playing some well known games a 'plan' can be produced. I shall refer to this procedure as the "postulational approach to planning" because of its close similarity with the postulational approach to economic theory itself. The second alternative is more difficult to define. But its primary concern is to be as realistic as possible in a given situation without, however, giving up one's long term objectives although they may appear terribly unrealistic at the moment. The effort then will be to plan today so that the long-term objectives can be realised someday, in fact as early as possible. But the procedure is very risky because, as mentioned above, the kind of changes needed for the realisation of long-term objectives can be brought about only through *strategic* moves and in the final

analysis a strategy can be validated only *ex post*, unlike science which has *ex ante* validation procedures. Hence if planning (of the second kind) is to be accepted as a strategy, the risk is not only that it may fail, but that it may even turn out to be counter-productive in terms of the long-term objective. Thus the essential feature of the second alternative is that even at best it can only be a Second Best (till the day of reckoning comes when with hind sight it has some chance of turning out to be *the* best!). So I shall refer to this alternative the "Second Best Approach to Planning." In what follows I shall point out the defects and inadequacies of the postulational approach to planning and put forward a second best approach to planning at the State level with special reference to the Sixth Five Year Plan of Tamil Nadu.

## II: Essentials of Planning :

2.1. Planning defined as "any scheme or co-ordinated action to be undertaken by a government or some such public authority with a view to bringing about certain desired once-for-all change or a process called economic growth"<sup>3</sup> is now a widely accepted procedure in all modern countries irrespective of their ideological positions. But the coverage, intensity and procedures of planning differ from country to country and these differences depend on objective factors such as ownership patterns and subjective considerations such as national traditions, popular beliefs etc. Obviously the objective and subjective factors interact (and their patterns of interaction have not been fully understood) and this makes it difficult to produce any neat typology of planning. One may, however, identify three diffe-

rent types, the Soviet type, the French (or Japanese) type and the Indian type. The difference between the first and the other two is objective in that Soviet Planning is done in an economy where the ownership of resources has been almost completely collectivised whereas in France and India resources are primarily owned by private individuals and agencies although both countries also have fairly large public sectors. Thus France and India are both "mixed economies", but there is a subjective difference between them. French planning does not attempt to bring about any major change in the institutional framework of the economy whereas India proclaims itself as a "Socialist" state committed to its own conveniently vague form of socialism. We shall not enter into the political aspect of this question. But it has some very explicit implications on the planning process. The Second Five Year Plan articulated it thus: "The task before an underdeveloped country is not merely to get better results within the existing framework of economic and social institutions, but to mould and refashion them so that they contribute effectively to the realisation of wider and deeper social values." From this point of view one can also draw a distinction between Soviet and French planning on the one hand and Indian Planning on the other. The former two do not contemplate any major institutional transformation (the Soviet Union because it believes that the desired transformation has been achieved already and France because a transformation is not considered to be necessary) whereas the latter (Indian) proposes to bring about institutional transformation also through "planning."

2.2 This is a crucial distinction which has a bearing, not primarily on the

philosophy of planning as it may first appear, but on the procedures of planning. In terms of procedures the difference can be noted first in their relationship between the agencies responsible for plan formulation and plan implementation. The agencies which are ultimately responsible for plan implementation are the production units. It is they who will, in the final analysis determine what will be produced and how much, although their decisions can be influenced by external agencies such as planning commissions and departments of governments.

2.3 Hence study of planning procedure must begin with an examination of the production units in the system. In the Soviet system there are different kinds of production units, collective farms, co-operatives and production units of the State, for instance. In the French system also there are different kinds of production units such as individual enterprises, corporations and the like. We shall, for the moment, overlook the inter-unit differences within each of these systems and reduce them to their usually stylised types. Accordingly, following the conventional procedures, we shall refer to the production units in the Soviet system as "enterprises" (managed by Lange-Lerner type of "civil servants") and characterise the French production units as "firms" (owned and operated by the profit maximising entrepreneurs of neoclassical economic theory). Given these basic production units the nature of the economic system is determined by the characteristics of the "information and control" patterns.<sup>4</sup> The information and control patterns of the French system are the more familiar of the two because in the ideal type of the French System information is passed on and control is

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4. For a discussion see Janos Kornai, *Anti Equilibrium* (Amsterdam, 1971)



exercised by the forces of the market. Again, in theory at any rate, the market is a neutral two-way communication channel transmitting information from consumers to producers and from producers to consumers also. This communication system is supposed to work at its best when nobody deliberately interferes with its functioning. However, the operational efficiency of the signalling mechanism of the market is confined to static analysis. It is now readily admitted that when it comes to dynamic problems the market system "compares unfavourably with both monopoly and central planning,"<sup>5</sup> in the sense that for production decisions involving time (as well as for production decisions involving externalities) the signalling device of the market just does not operate. In the French type of economies this is the sole justification for "planning" and planning is usually confined to giving indications to production units about prices that they will not otherwise be able to obtain. Hence the term "indicative planning". One must not infer that indicative planning is a purely passive procedure. The planning agency can and does use its power over the information and control mechanism to steer the economy along lines which it will not take if it is left to itself. In this sense the visible hand of the state can be said to operate against the invisible hand of the market. But the State makes no attempt to alter the basic structure of the system; its role is confined essentially to change the product mix of the economy by altering the market signals giving new (or additional) signals to the production units and leaving it to them to respond to these signals in any manner they like or consider to be most advantageous to them.

2.4 But since no one (other than the planning agency of the State) is supposed to have control over the signalling system and the information and control mechanism is thus taken to be neutral as between the production units in the economy, economic operations can be "summed up" in terms of market indicators. Thus the "growth" of the economy can be taken as the key indicator of its performance. One does not have to ask what has grown and in what manner because it is assumed that the market addresses itself to these questions and arrives at "socially satisfactory" answers (i.e., answers compatible with the existing institutional structure of the economy which is taken as datum in the planning process and which the planning process does not purport to alter). It means too that "maximisation of growth" can be accepted as the primary objective of planning and the system can be made to respond to this objective by issuing appropriate signals. Associated with growth in the aggregates there are also other aggregates such as investment (and savings) and thus the planning procedure can be envisaged in the form of bringing about changes in a few aggregate magnitudes. Growth in the aggregate is augmented by increasing investment in the aggregate and interest rate as a signal can be used to bring this about. Not that the economy is expected to expand uniformly as a balloon expands when it is inflated. The sectoral composition of economy can be changed, and does in fact change in the process of growth, but all of this only within the basic structure of the economy, the stability of which makes possible the summations and the decomposition of the summations.

2.5 Although the institutional patterns of the Soviet economy are different, the information and control mechanisms within that system bear a close resemblance to those of the French system. There is, of course, a major difference. The impersonal operation of the market is replaced by the organised communications network akin to the intra-firm information channel within the market system. In fact from the time of Lenin it has been claimed that national planning becomes possible in the Soviet Union precisely because by socialising the ownership of resources the entire economy is converted into a huge big firm. And Soviet writers are quite explicit that "the law of planned, balanced development emerges and begins to operate (only) when public ownership of the means of production and socialist production relations have been established".<sup>6</sup> All patterns of intra-firm information procedures can be seen in the Soviet system and its planning procedure, telephone calls, written orders, personal communications etc. But the important point to note is that as in the French system here too planning is a process of communication between the basic production units (enterprises) and the policy formulating agency of the State, and it is always a process of two-way communication. Here again some key aggregates play a prominent role as, for instance, the proportion of the total output that must be set aside for further production, the magnitude of production of key inputs and various other "control figures." It must be noted that because of the essentially physical nature of planning in the Soviet Union the "aggregates" assume a somewhat different appearance. But as in the case of the French indicative Plans, the aggregates or "control figures" in the

Soviet plans are meant to be indicative of the intentions of the policy formulating agency, and, more importantly, as *means of communication* with the actual production units. The process is described as follows: "Following the approval of the control figures (by the top level policy making bodies) the main job of drafting long-term plans for the widest range of targets is done at industrial enterprises, construction sites, state farms, collective farms, repair-and-service stations etc. These plans are examined by the economic and technical boards of the economic councils and they come into force after approval by the economic councils. The same procedure applies to enterprises under the jurisdiction of all-Union and republican ministries and departments and of local Soviets. Republican Councils of Ministers, republican economic councils, economic councils of economic administration areas and local Soviets dovetail all the plans of enterprises and construction sites under their jurisdiction and draw up summary long-term plans for the given economic administration area and also for the region, territory, autonomous republic and Union republic. Thus, the combination of national economic long-term planning with planning from below, beginning with an enterprise, is a basic principle of socialist long-term planning. Observance of this principle enables planning agencies to take every account for the possibilities for expanding production and also properly to co-ordinate the state and local interests. To combine general state planning with planning from below, the plans of lower units in the economic chain should be summarised and analysed at all higher levels. The preparation of the initial draft plan at each enterprise enables it to take into account the existing ties with other

enterprises. When preparing their plan, enterprises seek the advice of their higher economic organisation (trust, board of an economic council) in order that their drafts should conform to the utmost to the requirements of the national economy and provide for the full utilisation of productive capacity.<sup>7</sup>

2.6 The discussion of the French and Soviet Plannings shows that while there are substantive differences between them, they have much in common in terms of the procedures of planning which can now be enumerated as follows.

- (i) Both attempt to operate through their existing production units, to reach certain production targets through them.
- (ii) The planning process consists of a series of communications between the lower level production units and the higher level policy making units—(through appropriate information and control mechanisms). Thus decentralised and centralised aspects exist as mutually supplementing processes.
- (iii) Planning in terms of a few aggregates is essentially a way of "summing up" the action programmes of the production units or as giving the first indications for their operations. Macro-planning, thus, is only one aspect of planning procedure and must be supplemented by corresponding "micro-global" planning.

- (iv) A major aspect of planning is the information and control mechanism which may be a series of signals as in the French case or signals and transactions as in the Soviet case.

### III. Postulational Planning in India :

3.1. If the four characteristics mentioned above are essential features of the planning process, "planning" in India can be seen to be something very different from the French and Soviet types. Planning in India is not in any meaningful sense related to the production units in the country (other than those in the public sector); neither is there much of communication between the production units and the policy making agencies. For the same reasons the Indian macro plans do not "sum up" the action programmes of the production units and do not give them any guide to action. And it is hard to trace the information and control mechanism involved in the Indian Plans.

3.2. There are two reasons why Indian Planning is so markedly different from the French and Soviet counterparts. The first is the nature of the economy. The production units in the Indian economy are neither fully integrated into a market system as in France, nor have they become part of "one big firm" as in the Soviet Union. There are the publicly owned production units, there are the production units in what is called the modern or organised private sector, and then there are the production units in the unorganised sector, which itself is not a homogeneous component. Quantitatively it is the largest sector (in terms of output, employment and savings). If this sector is con-

sidered to be typical of the Indian economy, the production units in the French system may be represented as "households"<sup>8</sup> just as the production units in the French system are considered "firms" and the Soviet system "enterprises." Another way of representing the Indian economy is to say that it is a heterogeneous system of "households" "firms" and "enterprises."<sup>9</sup> A major planning problem in India is to determine the nature of the information and control mechanism which links up the economy into anything like a definable economic system. While on this point it must be noted also that a further planning problem is presented by the fact that another major aspect of the Indian economy is that a very large component of its labour force, (the landless agricultural labourers who constitute over 20 per cent of the labour force) cannot be considered to be related to any one of the production units. This is another special feature of the Indian economy which makes it difficult for it to be analysed solely in terms of production units.

3.3. These are all objective conditions that differentiate the Indian economy from the French and Soviet economies and which should therefore, necessitate a different approach to planning in India. These are reinforced by the goals of the Indian political system as spelled out in the Constitution as also in the plan documents themselves. These have already been summed up as India's desire to be a "socialist" state of its own definition. Article 39 of the Constitution which specifies that "the ownership and control of the national resources of the community should be so distributed as best to

subserve the common good" and that "the operation of the economic system should not result in the concentration of wealth and the means of production to the common detriment is an instance of this kind." So is chapter 2 of the Second Five Year Plan document where it is stated that "major decisions regarding production, distribution, consumption and investment—and in fact all significant socio-economic relationships—must be made by agencies informed by social purpose." Similar passages in Chapter I of the Third Five Year Plan document are other examples. These sentiments imply that unlike in the French and Soviet cases planning in India cannot be merely to energise its production units, and that, in fact, a major purpose of planning is to alter the existing structure of *Production relationships*. So Indian plans must work through existing production units, but must also aim to transform the institutional framework of the economy. What kind of information and control mechanism is capable of playing this role of "creative destruction"?

3.4 These are the issues that the nature of the Indian economy and the goals of Indian development pose to the planning process in India. But Indian plans have by and large disregarded these issues by pretending that they do not exist. It is the procedure of planning "as if" these special aspects of the situation do not exist that constitutes the basis of "postulational planning" in India.

3.5 The postulational method is one that concentrates almost exclusively on the deductive validity and consequently

8. For a conceptualisation of the Indian economy as an economy of households see my *Indian Economic Crisis*, particularly Ch. IV.

9. See *Indian Economic Crisis* Ch. VIII.

the internal consistency of a system of postulates or assumptions. It is of the "If this, then that" logical exercise which permits one to set up one's own postulates without necessary relation to empirical reality.<sup>10</sup> Therefore, if often turns out to be a procedure which puts high premium on rigour with low priority to realism. A quick review of the Five Year Plans, particularly the theoretical thinking underlying them, will show that this indeed has been the chief characteristic of Indian Planning.

3.6 It is well known that the First Five Year Plan was not the result of any serious thinking, but was simply a collection of projects already in execution and a "string of budgets" as a later Finance Minister was to remark.<sup>11</sup> As an *ex post* exercise the collection of projects and the string of budgets that loosely held them together were clothed in the Harrod-Domar growth models, whereby First Plan was shown to be part of a strategy to increase marginal savings in the economy. The argument was that if marginal savings could be increased, it would facilitate higher investment which would result in an increase in national income and per capita income. It will be recalled also that the long-term aim envisaged in the First Five Year Plan was a doubling of per capita income within a generation or so. On this Mahalanobis

was to say later: "If it is desired to double the per capita income in India in, say, 35 years (with population continuing to grow at the present rate) then the per capita net national income must increase at the rate of 2 per cent a year, and the total net national income must increase at the rate of at least  $3\frac{1}{2}$  per cent per year. To attain this rate of growth it would be necessary to make new investments at the rate of something like 10 or 11 per cent of the net national income per year, that is, the rate of investment must be roughly of the order of Rs. 900 or Rs. 1,000 crores per year. This means that there must be additional investments to the extent of something like Rs. 400 or Rs. 500 crores per year over and above what is being invested at present."<sup>12</sup>

3.7 With the Second Five Year Plan we reach postulational planning *par excellence*. Mahalanobis's thinking on the Second Plan in fact consisted of a descriptive account of the Indian economy which showed a realistic understanding of the Indian economy ("Indian economy is basically one of small household units of production; and most of the enterprises are run by self-employed persons" etc.) which the economists at that time had not taken serious note of. But the model he uses as the basis of the Second Plan had *absolutely no way* of interpreting that reality or incorporating it into the plan-

10. For a discussion of the postulational method in economics see T. C. Koopmans; *Three Essays on the State of Economic Science* and C. T. Kurien : *A Theoretical Approach to the Indian Economy* (Bombay 1970).

11. I have attempted a critical summary of the First and Second Five Year Plans in *Indian Economic Crisis*, Ch. VII.

12. P. C. Mahalanobis : "National Income, Investment and National Development", in *Talks on Planning*.

ning process. The Mahalanobis two-sector and subsequent four-sector models were aggregative "projection models", i.e. models meant "to enable the making of quantitative projections for the economy over the plan period."<sup>13</sup> One must take due note of the expert opinion that "A Plan Model is a mathematical model designed to help in the drawing up of a plan of economic development ..(but that it) is *not* a plan manufacturing machinery: it is not expected to produce a plan all ready to be implemented, like Minerva emerging from the head of Zeus... It is meant to yield an optimally balanced collection of measures which we shall call Model Targets, which can help the planning authority in the drawing up of an actual plan."<sup>14</sup> And so one must not expect a one-to-one correspondence between a Plan Model and a Plan. However the impact of the Mahalanobis Plan Models on the Second Plan was so substantial that for the kind of problem under discussion a scrutiny of the Plan Models is necessary.

3.8 First we must note the fact that the Mahalanobis two-sector model, although independently arrived at was almost identical to the Russian economist Feldman's model. From this some have jumped to the conclusion (either as a compliment or as a criticism) that the Second Plan, therefore, was a "socialist" plan. That question need not be examined here. The point to note is the one discussed in the previous section that an aggregate model plays a certain role in an economy which has become "one

big firm" and that such conditions do not obtain in India. Hence an aggregate model in the Indian context has to be based on a big "as if" assumption of centralised investment planning, and it was implicit in the Mahalanobis model. That was not the only "as if" assumption of the Mahalanobis two-sector and four-sector models. It was further assumed, quite explicitly, that the Indian economy could be planned "as if" it is a closed economy. Further, the models also contained the explicitly recognised assumption that "if something can be shown to be feasible in physical terms, then the financial and fiscal machinery can always be adjusted to supply a satisfactory monetary counterpart (provided there is no difficulty in making necessary institutional changes)" — another big "as if" assumption as far as the Indian situation was concerned! Although the Mahalanobis models were at that time considered to be one of India's major contribution to the literature on planning, a more recent verdict on them has been that they have "very little interest, either from the angle of theory or from that of useful practical application."<sup>15</sup> But those who are more concerned with the performance of the economy than with the achievements of a model cannot dismiss these models as mere innocuous intellectual exercises because as it happened in the case of the Second Five Year Plan) policy makers often take these models seriously forgetting their many "as if" assumptions and

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13. Rudra, *Op. cit.* pp. 9 & 10

14. *Ibid.* p. 8.

15. *Ibid.* p. 147.

such adaptations have serious consequences.<sup>16</sup>

3.9 If one examines our subsequent Plan Models also one can see that they have been little more than "games that people play." The extremely sophisticated model underlying the Fifth Five Year Plan has been the crowning glory of that game with just one difference—all previous Plan Models were the result of private enterprise; but the Plan Model of the Fifth Five Year Plan, "A Technical Note on the Approach to the Fifth Plan of India, 1974-79" was a "public sector project" as it emanated from within the Planning Commission. Unlike previous Plan Models, the Fifth Plan Model also had some normative considerations, the prominent among them being:<sup>17</sup>

"(a) It is adopted as the most important ultimate objective of planning that by the final year of the plan, poverty should have been removed in the sense that practically nobody in the country should have a consumption level below a certain minimum.

(b) A second important objective is adopted, namely, reduction in

the inequality of distribution of consumption by a certain stipulated degree (expressed in terms of change in the Lorenz ratio).

- (c) Target for aggregative consumption is set for the final year in such a way as to be compatible with the above two objectives.
- (d) Other macro-economic targets for the final year (e. g. terminal year capital formation, exports, imports, etc.) are set so as to be in agreement with the target for aggregate consumption.
- (e) A production structure at the disaggregated industry level is worked out so as to permit the realisation of the macro-economic objectives as under (a) and (b) above".

3.10 Those who are familiar with the documents know the thoroughness with which all these exercises have been gone through and the Model gives the impression of being an almost operational Model. Whatever may be one's assessment about these aspects of the Model and its internal consistency,<sup>18</sup> it is not

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16. This was the main theme of *Indian Economic Crisis*. Briefly, I argued that the Mahalanobis model of centralised investment allocation assumes the independence of the savings and investment decisions in the economy, but this is not true when producer households accounted for a major share of the aggregate savings and to the extent that their saving decision is a function of investment opportunities in their own production units. I argued further that the attempts to increase the share of investment by the government without altering the institutional structure of the economy would lead to a reduction of the rate of savings in the economy.

17. This summary is from Rudra, *Op. cit.* p. 192.

18. On the question of the internal consistency of the Fifth Plan Model see T. N. Krishnan: "The Fifth Five Year Plan Model: A Comment" *Economic and Political Weekly*, Spl. No. Aug. 1973.

difficult to unearth the "as if" assumptions of the Model. After scrutinising the Model in 1973 (with special reference to its anti-poverty programme) I observed: "Under these circumstances, till the mechanics of reducing the consumption of a section of people whose incomes will be rising are spelled out no faith can be put in a formal exercise which shows that if the consumption of the rich can be reduced the consumption of the poor can be increased. Thus the Fifth Plan's anti-poverty programme is one which does not involve any major change in the growth pattern of the economy, does not say how the incomes of the poor will be increased to give them a higher consumption, and does not show how the consumption of the rich will be curbed. What kind of an anti-poverty programme is it?"<sup>19</sup> The document has another big "as if" assumption which is not explicitly stated, but which runs through the entire exercise, and that is that the Planning Commission, or at least the entire State machinery together, will have enough control over the economy to decide that the annual rate of growth during the Fifth Plan period should be 5.5 per cent, no more, no less! More need not be said about the postulational nature of planning in India.

#### **IV: Planning at the State Level and the Perspective Plan of Tamil Nadu :**

4.1. When it is assumed that the Central Planning Commission can decide on the planning strategy for the entire economy and that even the investment

pattern can be (notionally at least) determined by it, there is hardly any case for "Planning" at the State level. But in the past there have been state level Five Year Plans which, in fact, consisted of little more than an elaboration of plans relating to the region (i.e. projects sanctioned for the region) already determined by the Central Planning Commission and the Central Government, embellished occasionally by some trend calculations and forecasting exercises. But change in the political complexion in the late sixties and early seventies led to more vociferous discussion about planning at the State level with many States setting up their own Planning Boards. In 1971 Tamil Nadu became the first State in the country to set up a Planning Commission of its own mainly to draw a Perspective Plan for the State covering the decade of 1974-84.

4.2 In order to make a critical appraisal of the planning procedure of the State Planning Commission and of the Perspective Plan for Tamil Nadu it is necessary in the first place to examine the special features of the States from the point of view of planning. The features of the Indian economy discussed in section II are common to the states also and do not have to be repeated. In addition to them planning at the State level is characterised by two additional "imponderables", to use the expression of a member of the State Planning Commission.<sup>20</sup> The first relates to the uncertainties regarding the contribution of the Centre, usually anywhere between 20 and 30 per cent of investments in a State.

19. *Poverty and Development* p. 100.

20. V. Shanmugasundaram, "Capital Formation and Resource Mobilisation" in *Bulletin of the Madras Institute of Development Studies*, January 1974.



The Centre's share in the State's plan can be known only after the Central Plan itself is finalised, and even after that the actual figures are a matter of annual allocations. Secondly, the data base of the State level economy is seldom as adequate as that of the national economy which itself is far from satisfactory. Since the State economy is an "open economy" without any easy means to record its transactions with "the rest of the world" "domestic" product and State level income become extremely difficult to define and more difficult to measure. This imposes severe limitations on all approaches to inter-sectoral linkages (capital-output ratios, flow of Funds analysis etc.) which are the commonest techniques at national level planning. Because of this again, states seldom have estimates of savings and investment taking place in their territory. Thus planning at the State level turns out to be much more circumscribed than at the national level.

4.3 And so it was a matter of surprise and disappointment to see that what the State Planning Commission set out to do in the early 1970s was almost exactly what the Central Planning Commission attempted to do in the early 1950s! The key objectives of the Perspective Plan are a doubling of per capita income, provision of "full employment" and reduction of inequalities (including, to keep up with the times, attacking in a selective manner the worst forms of poverty). Even granting that there cannot be any major differences in objectives between national and state plans, one would have expected to see something of a different orientation in a State Level Plan. But in

objectives, orientation and logic, the State's Perspective Plan has turned out to be the same kind of game as has been played at the national level all these years.<sup>21</sup> Naturally, therefore, the same techniques have been used also, demand projections, target settings, sectoral allocations, consistency calculations all used with considerable skill, but very little concern for relevance, or even feasibility considerations. To give just a few examples, although per capita net domestic product in the State (at constant prices) increased only by 45 per cent in the period from 1950-51 to 1973-74 (with the 1974-75 figure being a sharp decline because of the drought) the Perspective Plan promises a doubling of per capita income in 12 years. Again while annual rate of growth of net domestic product hardly ever exceeded 5 per cent except when production was recovering from droughts, the Perspective Plan, in its enthusiasm for affluence gleefully postulates an annual rate of growth of 7 to 10 per cent over the Fifth and Sixth Plan periods. It also considers it possible to step up investment from 13 per cent of State income to 21 per cent via an incremental investment ratio of 50 per cent! Not that these are possibilities, but that these are necessary for the internal consistency of a plan to raise the per capita income to Rs. 1,308 (in 1970-71 prices) by 1983-84. On the basis of that postulated level of income, calculations have been made of such details as the quantities of egg and milk and a variety of commodities that an average citizen will consume in 1984. It is promised also (on the basis of appropriate calculations) that there will be "full employment" in the State and poverty will be all but eliminated. A

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21. A member of the State Planning Commission mentioned in a private conversation in the early days of the State Planning Commission that a Mahalanobis-type planning model for the State was under consideration.

beautiful dream indeed, but perhaps not what one expects from a responsible public body. But it is postulational planning all the way.

4.4 One of the objectives of the Perspective Plan is "decentralising planning, development and resource mobilisation". The principle of decentralised planning is spelled out as follows: "The overall objective of doubling per capita income is to be realised through the implementation of the comprehensive programme of development but this State programme should take into account and, in fact, be based on the needs and unique physical and human resources of each locality. The objective of eradicating unemployment involves the identification of the unemployed and underemployed in each village and panchayat union block, their age composition, the occupation they are engaged in, their skill, and qualifications with reference to which employment generating strategy in each region is to be determined. Similarly, the formulation of measures to reduce mass poverty would involve micro-planning and area-programming in order to determine who the poor are, how many of them are in the labour force, how many dependents they have, where they are located, what their food and minimum non-food needs are in each locality and what the local resources are that need to be mobilised and which in combination with State subsidy can be used to finance the poverty-eradication programme" 22

4.5 This section brings in a touch of realism to the Plan, at least in its approach, but a perusal of the District Plans (Towards an Affluent District Economy) shows that the decentralisation attempted in them is largely in terms of

the spatial dimension alone, and even the district plans are couched in terms of aggregates such as per capita income. There is some semblance of physical planning, but it consists primarily in a listing of projects and never reaches anywhere near a truly "decentralised" plan at the production unit level. In fact where the planning of certain global figures is considered to be the central aspect of a plan, one cannot expect a better treatment of decentralised planning. In any realistic plan macro planning and micro-planning at the level of production units are necessary complements. But in postulational plan couched in terms of aggregates decentralised planning at the production level becomes its anti-thesis.

4.6 But the main weakness of the Perspective Plan is that it is so completely divorced from the realities of the Tamil Nadu economy not only in the sense that it postulates a sudden discontinuity with the past, but that it is also devoid of any live contact with the present. What the Perspective Plan in fact does it to present a future which is not related to the past or the present. Hence whatever else its merits are, it cannot be thought of as a guide to a realistic plan for implementation.

## V: Tamil Nadu Economy—An assessment of the Past and Survey of the Present:

5.1 The first step in the formulation of a realistic plan is to come to have an understanding of the economy to be planned.

5.2 In terms of global magnitudes the performance of the economy from the

period 1950-51 to 1973-74 may be summed up as follows:<sup>23</sup>

The aggregate State Net Domestic Product (NDP) during the period (in constant prices) increased by about 110 per cent and per capita NDP by 45.5 per cent with the latter showing an average annual compound rate of growth of just 1.6 per cent (at which rate a doubling of the 1973-74 per capita income would take 47 years, as against the Perspective Plans, effort to achieve the miracle in just 10 years). The compound rate of growth of NDP during the period was 3.2 per cent, and the growth rate has been declining from 3.5 per cent in the period 1951-52 to 1960-61, 3.1 per cent in 1961-62 to 1970-71 and 2.3 in 1971-72 to 1973-74. The growth in NDP depends largely on the performance of agriculture where the compound rate of growth was only 2 per cent, from 1951-52 to 1973-74, 3.2 per cent in 1951-52 to 1960-61 and 1.3 per cent in 1961-62 to 1970-71. The very poor performance of the 1960s was the result of the decay of the first half with a growth rate of (—) 1.9 per cent in 1961-62 to 1965-66 which was revived from 1966 onwards with the tempo picking up considerably after the drought period of 1966-67 to 1968-69 and showing a rate of 5.2 per cent in 1969-70 to 1973-74.

5.3 There is another less publicised aspect of the performance of the State's economy, mainly in terms of distributional aspect. Basing oneself on data provided by the National Sample Survey and using

the well known nutritionally adequate diet and minimum levels of living criteria it is seen that the percentage of population below the poverty line declined in the State from midfifties to early or mid sixties, and then has been going up.<sup>24</sup> Thus, in terms of nutritionally adequate diet norm, 53 per cent of the rural population was below the poverty line in 1957-58. It came down to 36 per cent in 1961-62 and has been moving up since then reaching 49 per cent in 1969-70. According to the same norm 45 per cent of the urban population was below the poverty line in 1957-58 which dropped to 33 per cent in 1963-64, moved upto 42 per cent in 1964-65, but went down to 38 per cent in 1969-70. In terms of minimum levels of living 74 per cent of rural population was poor in 1957-58. The figure reached a level of 64 per cent in 1962-63 but returned to 74 in 1969-70. In the urban areas 71 per cent of the population was below poverty line in 1957-58 which came down to 62 in 1963-64 but moved upto 72 in 1969-70. These figures need to be studied carefully and the phenomenon must be related to the structure and working of the economy. But it poses a serious challenge to the Perspective Plan's facile assumption that increases in per capita income can also be taken as indications of the reduction in poverty.

5.4 In terms of manpower utilisation also the performance of the economy shows a none too happy trend. It is not possible to make firm estimates of either employment or unemployment in the

23. The following paragraph is based on data made available by Selvi Celine De Souza, Research Officer, State Planning Commission, from her excellent study on the economic performance of Tamil Nadu, 1950 to 1975. I am most grateful to her.

24. See my *Poverty in Rural Tamil Nadu* (World Employment Programme Research, International Labour Organisation, 1976).

State and one does not propose to get caught up with abstruse problems of concepts and measurements at this point. Hence only the most readily available and widely accepted employment exchange figures will be used as indicative of the nature of the problem in the State. The number of applicants on the Live Register of Employment Exchanges rose from 2,02,000 in 1965 to 654,600 in 1975 with the percentage of placement to registration declining from 20.84 to 8.02 during the same period.<sup>25</sup> There are other indications also that the employment situation in the State has deteriorated inspite of planning for affluence.

5.5 When plan documents make reference to the past, it is usually only in terms of the commonly used indicators of performance. But the state of an economy must be evaluated also in terms of its activity and structure which reveal many new dimensions which cannot be seen through performance indicators.

5.6 A recently concluded regionally and functionally disaggregated analysis of economic change in Tamil Nadu during the period from 1960 to 1970 has brought to light many little documented (but possibly much suspected) aspects of the economy of the State.<sup>26</sup> Using four activity indices—composition of the labour force, nature of cropping pattern, industrial activity and urbanisation features—and probing the State economy at the level of taluks (excluding those of the Nilgiris and Kanyakumari districts) it

was noticed that out of the 93 taluks examined 33 did not show any change at all, 11 changed in terms of work force, 26 in terms of cropping pattern, 24 in terms of industrial features and 29 in terms of urbanisation. But after screening these changes for significance the study was led to conclude: "The striking features of change in economic activity in Tamil Nadu during the decade of the sixties have been paddy intensification in 8 taluks, industrial change in 6 taluks and urban change in 4 taluks. In a way it is too precise a quantification, but it helps to formulate a mental picture of the nature of the change."

5.7. Extreme spatial concentration of change in economic activity has thus been a major aspect of the growth process in Tamil Nadu in the recent past which cannot be glossed over in any realistic approach to planning. The spatial concentration phenomenon must be supplemented by two other aspects. The first is that in the agricultural sector economic change has been brought about through a "selective and intensive" scheme of operatives.<sup>27</sup> One cannot go into all the details here but the striking indications of "modernisation" will themselves show how selective the process must have been. Total number of tractors in the State increased from 327 in 1951 to 934 in 1961 and then shot up to 3,278 in 1966 and to, 7,107 in 1974. Similarly electric pumps—the status symbol of the State's "pumpset revolution"—increased from 14,750 in

25. *Tamil Nadu—An Economic Appraisal* 1976 p. 169.

26. C. T. Kurien and Josef James : *Economic Change in Tamil Nadu—A Regionally and Functionally Disaggregated Analysis* (forthcoming 1977).

27. C. T. Kurien : "Technology, Production System and Distributive Justice" (paper presented at an All-India Symposium, Jan. 1977).

1951 to 98,480 in 1961 and then to 2,08,480 in 1966 and the strikingly high 6,80,700 in 1974. If evidence is needed as to how many farmer may have benefited by these modernisation revolutions one need only recall a calculation made in 1961 : "It would cost a farmer about Rs. 145/- per acre for water from a tube well, if the yield of the tube well was about 20,000 gallons per hour and the area irrigated 40 acres of paddy. Wells yielding less than 20,000 gallons per hour would be uneconomic."<sup>28</sup> Tube wells, pumpsets, tractors etc. could have only gone to the few who are capable of "delivering the goods." The second aspect relates to the industrialisation phenomenon. The industrial process in the State during the sixties has been described as one of "expansion, diversification and sophistication" which is an apt description indeed. But it has also been one of the regional concentration and capital intensification. The City of Madras and the Chingleput districts together accounted for 23.6 per cent of factories, 25 per cent of the persons employed, 33.1 per cent of productive capital and 40.8 per cent of value added of the large scale industries in the State in 1960. In 1970, the city and its neighbourhood claimed 32 per cent of the factories, 47.2 per cent of the persons employed, 65 per cent of productive capital and 55.5 per cent of the value added. In terms of the position of the State as a whole, while the total number of workers employed in large-scale industry increased from 2,25,000 in 1960 to 4,83,000 in 1970 indicating a growth of 115 per cent, productive capital increased from Rs. 11.64 crores to Rs. 116.38 crores showing a growth of 900 per cent. If these indicate the patterns of growth in the past, then it has

o be inferred that growth was growth for the few and misery for the many as the figures on the poverty profile suggest. In turning to planning for the future this is a problem that must be squarely faced.

5.8. Having highlighted some of the special characteristics of economic activity and growth in the past, one may turn to the concrete problems of the contemporary economy that constitute the background to any future planning. Of these the most important is the ownership and utilisation patterns of land. According to the Twenty-sixth round of the National Sample Survey covering the period from July 1971 to September 1972 the average area of land owned by all rural households is 1.83 acres and the average area of all land owning households is 1.97 acres. In rural Tamil Nadu 17 per cent of households does not own any land at all and in this respect Tamil Nadu holds the first position among all States in the country. Sixty per cent of rural households owns less than one acre of land and these households account for 4.45 per cent of all land. On the other hand the top 10 per cent of the rural households owns about 58 per cent of land and the top one per cent about 15 per cent of land. Earlier rounds of the National Sample Survey permit some comparison of the situation as it existed in the mid fifties and the early sixties and the overall conclusion has to be that in spite of many radical land reform measures legally brought about, including very stringent ceiling laws, the distribution pattern of the ownership of land has not undergone any significant change at all. The pattern of operational holdings is also worth nothing. About 56 per cent of rural households operates less than one acre of land and accounts for 3.77 per cent of

all operated area. The evidence is also that those who have large areas of land do not make the best use of it. Gross cropped area as a percentage of total operated area declines sharply as the size of holding increases, going down from about 100 per cent in the case of very small holdings to less than 50 per cent in the case of holdings above 50 hectares. Leasing out of land is a widespread phenomenon and the top group of households owning above 25 acres account for over 30 per cent of land leased out. It has been estimated also that close to 56 per cent of operational holdings in the State would yield net earnings hardly sufficient to provide minimum levels of living of cultivator families. Thus a major problem in Tamil Nadu is related to the life and work of the landless agricultural labourers and the large number of marginal farmers together constituting the major part of the "weaker sections" in the rural areas. What we know about them from the twentyfifth round of the National Sample Survey is that although from the point of land ownership they are distinct categories, from the point of view of employment and earnings they are fairly similar groups. The poorest of the "small cultivators", for instance, work in their farms only 6 to 8 per cent of the total man-days in the year and spend between 20 and 30 per cent of the man-days as paid workers in other farms. In terms of employment and earning capacities their position is no better than those of the non-cultivating wage earners. In fact during the busy agricultural season the non-cultivators, both male and female have a higher earning than the small farmers.

5.9. Another consideration to understand the nature of the economic problem in Tamil Nadu is the occupational pattern of labour force in general. While industry

in the State has made visible progress, the percentage of the labour force in the primary sector has been increasing in the past quarter of a century. Primary sector which accounted for 62.4 per cent of the labour force in 1951 came to have 64.8 per cent in 1971. This cannot be considered to be a quantitatively large shift and yet it is significant that it should have happened in two decades of rapid industrialisation and the striking increase in the share of the secondary sector in the net domestic product of the State.

5.10. The shift in favour of the primary sector of the labour force as a whole is matched by a shift in favour of the unorganised sector of the non-agricultural labour force. The "organised sector" comprising of all establishments in the public sector and those of private establishments in the non-agricultural sector employing ten or more workers accounts for only between 8 and 10 per cent of the entire labour force in the State and around 22 per cent of the workers in non-primary activities. A comparison over time of the relative strength of the organised sector is made difficult because of the changing definition of the "workers" in the Census Reports, but there is reason to believe that in the 1960s the unorganised sector may have grown faster in comparison with the organised sector indicating the inability of the organised sector to absorb the growing labour force. The shift of the labour force into agriculture and the primary sector in general and within the non-primary sector into the unorganised sector must both be thought of as retrogressive in terms of the kind of transformations economists associate with growth and development.

5.11. We have attempted a quick survey of the state of the Tamil Nadu

economy featuring some of its chronic problems. These are not the problems that planners usually take into account, and yet planners would like to claim that these are the kind of problems they would like to see resolved. These problems also show the futility of planning in terms of abstract aggregate figures alone if planning is to be anything more than a mere exercise in economic arithmetic.

## **VI. A Second-Best Approach to Economic Change in Tamil Nadu— With Special Reference to the Sixth Five Year Plan**

6.1 The essentials of the "Second-Best Approach to Planning" have been indicated in the Introductory Section. It arises from the conviction that the basic problems of economies such as Tamil Nadu and India can be solved only through major changes in the institutional frame-work of the economy, but that planning is an effort to bring-about these changes through the same institutional framework. At best it can provide the environment for that transformation, but there is also the danger that it can become a substitute for the radical transformation that is required.

6.2 The basic problem that a plan in our country and the State must address itself to is that the distribution of the material resources in the economy is such that instead of the goods needed for the livelihood of the many, goods demanded by the growing affluence for the few are produced. In this process human skills and potentialities are forced to remain inadequately utilised. Thus mass poverty and the wide-spread under-utilisation of human resources which constitute the

greatest asset of the economy are the twin manifestations of the same chronic malady. And the remedy is the production of goods for mass consumption by the masses themselves.<sup>29</sup> The central task of planning is to make this possible. To achieve this objective, planning of the macro-aggregate type is not particularly helpful even if it is possible. But at the State level even the possibilities of realistic macro planning are extremely limited because of the many "imponderables". The only plan that will be operational and effective for the primary purpose and under the given circumstances is a functionally decentralised plan (and not merely regionally and administratively decentralised plans, although these become necessary). A functionally decentralised plan will not only involve the lowest level production units, and in that sense be location-specific, but will have to be also commodity-specific and resource-specific.

6.3 A precondition for such a plan is a drastic reduction in the concentration of ownership of the material resources, particularly land. This is needed first as a measure leading to new forms of production units including those of collective ownership principle and co-operative operational forms. Secondly, it is required to bring about changes in the demand structure and consequently the pattern of commodity composition and production. And thirdly, it is necessary to reduce the impact of economic power on the "information and control mechanism" in the system.

6.4 The reduction in concentration must thus be accompanied by the creation of new types of production units for the production of goods of mass consumption

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29. I have developed this theme more fully in "Framework....."

by the masses themselves and by the State authority coming to have greater influence over the information and control mechanism to facilitate better communication between the lower level production units and the higher level policy making units. Thus planning must lead to greater co-ordination of decisions and operations within the economy.

6.5 These are the essential principles of the new planning process. We must now translate them into the specific situation of Tamil Nadu. It must be mentioned at the outset that location-specific, commodity-specific and resource-specific plan cannot easily be generalised or be determined from the top. It simply has to be initiated from below. Hence in what follows we shall only outline the strategy of such a planning procedure without going into programmes and projects. Also what an "approach" should attempt is strategy, not details for action.

6.6. Effective implementation of existing land reform legislations particularly land ceiling legislations is the basis of the strategy. After the 1970 land ceiling legislations fixing a limit of 15 standard acres for a family of five, it was officially estimated in 1972 that over 2 million standard acres of land would be available as surplus land, but that only a little over 20,000 acres had been actually distributed to the landless, that is, only one per cent of the estimated surplus.<sup>30</sup> These 2 million standard acres can be anywhere upto 8 million acres, because under land ceiling legislation a standard acre may be upto 4 acres of land. It may, therefore, be proper to think of the actual surplus to be about 5 million acres, or 2

million hectares which can thus be seen to be a third of the total net sown area of the State of a little more than 6 million hectares. This is only a rough calculation and yet it shows the strategic importance of surplus land if only it is actually realised. The utilisation of the surplus land is a very crucial part of the new planning strategy. One possibility is to distribute it among the agricultural labourers and the very small cultivators let us say, the 60 per cent of the rural households owning less than one acre of land. Not all of them may require land and so it may be assumed that the surplus land is to be distributed among one half of the rural households. There are some 6.5 million households in the rural areas and hence about 3 million households may be considered as eligible for surplus land. Thus if the surplus land of 2 million hectares is to be distributed among them, each will become eligible 2/3 hectares of land which will go a longway to relieve rural poverty and unemployment. But distribution of land to each household is neither necessary nor is it the most desirable manner of utilisation of the surplus land. If it constitutes a third of the net sown area of the State, it must be used also for the State authority to come to have more effective influence over the information and control mechanism. Thus new forms of ownership and operational patterns such as collectives and co-operatives must be attempted depending upon specific local conditions. These units should be used to introduce new methods of cultivation, to ensure an effective supply of food grains and other important agricultural products and to link up other forms of economic activity in the rural areas. One way in which the State authority can establish

30. Board of Revenue : *Land Reforms—Progress Report, 1972.*



effective contact with them is by becoming the agency to supply their inputs (if necessary through appropriate schemes of subsidies) and to purchase their outputs. It should also be the policy of the Government to withdraw in a rapidly phased manner all subsidies given to other agricultural units so that their economic power is drastically reduced. The surplus land should thus be used for the following purposes: (1) To provide steady and gainful occupation to the rural labour force, particularly those who are now landless agricultural labourers and marginal cultivators; (2) to develop a net-work of production units with new forms of ownership and control which will be directly linked up with the State authority; (3) to enable the Government to have effective control over foodgrains and other major agricultural products; (4) to initiate and develop new farm production techniques including various forms of mixed farming depending on local resources and requirements; (5) to reduce the economic power of private production units; and (6) to become the hub of a new strategy of rural development through diversification and accumulation.

6.7 The new set-up must be used to link up agricultural and non-agricultural activities in the rural areas. The patterns can and must vary depending on local conditions. Where food surpluses are available these could be used for capital works projects, primarily rural housing and provision of drinking water. Where food surpluses are not available, and thus trade with neighbouring regions become necessary, a variety of "settlements" should be developed which will provide a stimulus to both agricultural and non-agricultural activities. A typical possibility is for the "settlements" to have

production units for the manufacture and repair of agricultural implements. The aim in all these schemes must be to have a full and largely self-contained circuit of the rural economy making use of the land and other physical resources and abundant supply of manpower to produce the goods required within that circuit. Both the physical and human resources in the rural areas remain inadequately utilised because a sufficiently large circuit is not generated partly because of the isolation of individual villages or groups of villages, but mainly because of the increasing tendency for surpluses from the rural sector to get siphoned off into the "modern" sector in the urban areas and because of the deliberate effort of the modern sector to make indiscriminate inroads into the rural circuit by creating market problems. Something of the rural-urban circuit of the modern sector will continue as long as private sector agencies generate surplus (more accurately *appropriate* surplus) in the rural areas. Hence the strategy must be to protect the new all-rural circuit from the intrusion of the rural urban circuit. This can be achieved only by using the surplus land to develop new institutional structures in the rural economy to generate and reinforce an insulated circuit of rural economic activity. A necessary condition for it is a deliberate weakening of the impact of the "modern" sector on the rural economy.

6.8. As part of this programme it has been suggested already that all subsidies and concessions of various kinds now being given to the large farmers must be withdrawn. The subsidies, concessions and encouragements now being liberally extended to the modern industrial sector must also be withdrawn, and as against the present policy of inviting large-scale industry to move into backward and rural

areas, any attempt on their part to reach out to the rural areas either for production or for sales must be effectively controlled. Where the outputs of the modern large scale industries are necessary for the smooth movement of the rural circuit, these must be channelled only through the agencies of the State authority or the new trading agencies of the "settlements". A reversal of many existing policies and practices is thus called for.

6.9. The essence of the strategy outlined here is to lead to the establishment of two independent circuits of economic activity in the State. The first is the new all-rural circuit based on surplus land and new kinds of production units for agricultural and non-agricultural activities and where the information and control mechanism is substantially influenced by the agencies of the State authority. The second is the rural-urban circuit of the old production units in agriculture and the modern urban based industrial units where the information and control mechanism should be that of the "free market" with the State fully withdrawing its patronage and also imposing such restrictions as are necessary to see that this circuit does not interfere with the first one. And the long-term policy of the State must be to strengthen the former and weaken the latter.

6.10 All these can be and must be done making use of the agencies of the State Government and its fiscal machinery. In that case planning in the State will not depend as precariously on the Central Government's decisions as it now does. State planning can then have a fairly independent Central component which will consist of projects to be taken up on a priority basis depending on the

quantum of Central resources made available. With sufficient attention being devoted to this aspect, it can be ensured also that Central projects, nationalised concerns and government activity in general are all geared to reinforcing the all-rural circuit and not the rural-urban circuit as is now happening more by design than by accident. Details of these linking processes are yet to be worked out.

## VII A Recapitulation

7.0 The exposition in the earlier sections has turned out to be more professional than is usual in this Seminar series which brings together people from various academic disciplines and from different walks of life, (although it is far from technical from a professional point of view.) Hence a recapitulation of the main arguments may be useful.

7.1 Both in terms of the chronic and pressing problems of our country and State and in terms of our professed national goals, the kind of planning we need is one that brings about a transformation of the institutional framework of the economy, primarily the ownership of and control over resources.

7.2 From this point of view planning in India must be different from planning of the Soviet type (which takes place after the desired institutional transformation has been achieved) and the French type (which does not intend any institutional transformation of the economy). State level planning in India must be different from planning for the economy as a whole.

7.3 The essentials of planning involve the linking up of the production units

(decentralised action plans) with the strategy of the policy making agencies who use macro level planning to give the production units the first concrete indications of the strategy as well as to "sum up" the plans of the production units. Thus centralised macro planning and decentralised micro planning are complementary processes and not opposites in a spatial or administrative sense. Another important aspect of planning is "the information and control mechanism" of the system, influence over which alone will enable the policy making agency to ensure that policies are implemented.

7.4 Planning of this kind has not happened in India, and cannot happen except through an institutional transformation of the economy. Planning in India and in the Indian States (particularly the Perspective Plan of Tamil Nadu) have been only "postulational plans" which set up their own assumptions (unfortunately without sufficient attention to the realism of the assumptions) and then concentrate on logically deducting conclusions from them and examining the internal consistency of the systems thus established. In this process many well-known planning techniques have been used both at the Central and State levels and some have been evolved for or by the Central Planning Commission, but hardly anything at all at the State level. On the formal side the most disappointing aspect of planning in the country has been that State level planning exercises have only been but diluted imitations of Central planning exercises.

7.5 State level planning which can and must concentrate on the institutional transformation of the economy cannot be mere exercises in establishing global

relationships among some macro variables or in setting targets of production on the basis of demand projections. State plans must relate themselves to the concrete realities of the economy of their regions.

7.6 "Planning" in Tamil Nadu has resulted in some substantial increase in output and some sectoral transformation of the economy. But the basic and chronic problems of mass poverty and inadequate utilisation of human and non-human resources have not been solved. In fact mass poverty and unemployment in the State have increased during the period of recent increases in output.

7.7 A strategy for planning meant to solve effectively the real economic problems of the State must aim to establish two different circuits of economic activity. The first is an all-rural circuit to produce goods for mass consumption by the masses themselves. The surplus land that can be obtained on the basis of effective implementation of existing land ceiling legislation and the new production units and organisational patterns that can be evolved by using it will be the hub of the all-rural circuit. The second is the usual rural-urban circuit based on existing private agencies of production in the rural and urban areas. The planning strategy is to insulate the all-rural circuit from the rural-urban circuit, to reinforce it through linking it up with the other resources and agencies of the State (public sector enterprises, nationalised service agencies and the like) and to progressively weaken the rural-urban circuit by withdrawing all subsidies and concessions now being given to private production units in the rural and urban areas both in agriculture and industry.

7.8 The above strategy calls for a major reversal of policies now being pursued in the name of planning. It is not an "as if" plan. But it is an "only

if" plan for it will take shape *only if* there is the political will to implement it.

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## Summary of Discussion

In the discussion of the paper at the Seminar held in the seminar room of the Institute on Thursday 24th February 1977, under the chairmanship of Dr. K. K. Pillay, Director, Institute of Traditional Cultures, Madras, the Chairman observed that the subject of the paper was a live issue involving continuing dialogue in contrast to historical studies which were retrospective in content.

The author in his presentation stated that the paper expressed his thinking on the planning process, its assumptions and strategies as it has developed in the country over the last decade. Successful planning cannot be an exercise by a group of individuals, but must be operational and backed by a political will. Given the Indian structure, the question also arises as to the extent to which effective state level planning is possible. The State plans have to be framed against a number of factors generally described as "imponderables". Another uncertainty is the quantum of central contribution to State Plan resources. The planning process, in a theoretical analysis, consists of three components. The first step is to lay down the goals and spell out in detail the strategies required to achieve these.

Second, is the mechanism of communicating strategy decisions to the implementing agency or authority. Third comes the implementing agency. The three components form a complete circuit in effective implementation, a vital part being played by the communication network. In the Indian context the structure is hierarchical, the policy makers circularising decisions to the bureaucracy. Hence a serious lacuna becomes evident in that the information structure does not include the producers who are the actual implementers. Basically planning would imply control of the communication circuit, identification of implementing agencies and decisions on changes in institutional structure, if called for. In light of these criteria, a comparison could be made with the Soviet and French planning models. The Russian plans do not postulate changes in the structure of the economy as the first plan started only after the socialist structure was established by the revolution. The socialisation of the resources of production was, therefore, established, the planning process deriving therefrom. The policy makers control the communication network and the annual plan is a legal document, the targets being binding and meaningful;

macro level planning being a summation of the objective of an integrated economy. The French planning model does not postulate any radical changes in property relations as these are not considered necessary in a private enterprise economy. The policy makers can influence the communication system more than any one else. The micro targets are only indicators and are not binding. The planning agency uses its power over the information and control mechanism to guide the economy along preferred lines. The explicit objectives of Indian planning are to produce more and to achieve certain structural transformations. While it is assumed that the communication system is controlled by the State, in fact the official network is inadequate and an unofficial communication system functions under the control of a small group of producers. In foodgrains, 60 per cent of the market surplus is produced by 15 per cent of the producers. Even for the small producer, the terms of contract are controlled by this minority. At the national level, planning in India acquired a theoretical basis only with the Second Five Year Plan. The First plan and the earlier report of the National Planning Committee (Indian National Congress) were in the nature of preliminary exercises. Postulational planning in India seems to have premised, as in Russia, an institutional structure and a communication net-work atleast as effective as in France. In the absence of these factors, non-achievement of targets and policy reverses as exemplified by the failure of the take-over of the wholesale trade in food grains was no surprise. Reviewing the Perspective Plan drawn up by the Tamil Nadu State Planning Commission, it was pointed out that it followed the method that characterised the National plan formulation exercises in the 1950s. The major objectives—a doub-

ling of per capita income, provision of full employment and reduction of inequalities and attacking in a selective manner the worst forms of poverty—and the techniques of target setting were the same as in the national plans, losing sight of relevance and feasibility. The plan enunciated as its principal goal the doubling of per capita income in twelve years, while from 1950-51 to 1973-74, per capita domestic product has increased by only 45 per cent. Again while net domestic product has increased at an approximate rate of 5 per cent the Perspective Plan assumes a rate of growth of 7 to 10 per cent per year. An incremental investment ratio of 50 per cent is also envisaged. These rates are not determined on any feasibility criterion but to sustain the internal consistency of the plan. Further, the empirical data and information available are not sufficient to establish macro factors like overall growth rates and sectoral targets within the framework of State Planning. Relevant planning must be based on an understanding of the economy. Emphasis must shift from the sacrosanct objective of doubling of per capita income to actual changes in patterns of production, goods for mass consumption being produced by the masses themselves. The transformation of institutional relationship this approach requires, may commence with serious implementation of land ceiling laws already in force. The surplus, which is estimated at one-third of the net sown area can be used to create collective and cooperative patterns of ownership and operation as viable units. For this the first step is to locate surplus land available and presupposes a political will. The other aspect involved is to rapidly withdraw all subsidies from other agricultural units to reduce their control of the system. This system would ensure steady and gainful occupation, particularly for the

landless agricultural labourer and the marginal cultivator, establishing a rural—rural circuit and rural-urban circuit and form the core of a new strategy for rural development.

During the ensuing discussion, it was observed that the Tamil Nadu Perspective Plan was an attempt to indicate what could be done in certain conditions. Further, State level plans were restricted by annual statutory budget allocations. Political freedom in India came, in large measure, through a concatenation of political factors as against the mass based revolutionary movements in Russia and China. There was very little mass involvement in planning and implementation in India, the operative agency being an intelligent bureaucracy. It was also, pointed out that the Tamil Nadu Perspective Plan did not depend on trends alone but was an exercise in futurology. Moreover, the paper did not spell out an alternative theoretical approach from an economist's view point and the institutional changes proposed were not defined clearly. In this context, a reference was made to the absence of data and information on rates of growth, savings, investments etc which were basic elements for projecting a detailed plan. A query was raised as to the nature and structure of the communication net-work and production structure which would bring about the changes proposed in the absence of an established socialist economy. Commenting on the proposed changes in production structures, attention was drawn to the established textile industry in which 250 textile mills were operating in the state with large scale production and the problems which would arise in shifting production of textiles to the masses. These problems could,

however, be solved by a programme of freezing expansion and withdrawing concessions. The Government record of notified surplus land is only 1.12 lakh acres, as against the statistics presented. Also collectivisation of land and the accruing advantages need not be restricted to surplus land. It was feared that in the proposed rural circuit the quantities produced would not be sufficient to create appreciable reserves. It was also felt that structural change and institutional transformation are not synonymous. A view was expressed that the word "Perspective" seemed to have varying semantic overtones. A Perspective Plan preceded by a survey could ensure an optimal utilisation of resources and some estimates of regional growth rates. As the State Plan stands the actual producers seem to be nowhere in the planning network and even the IAD Programmes lack an information base. The nationalisation of banks, however, has been an opportunity to establish direct communication with the producer.

Future planning in India and the State, if it is to solve our problems of mass poverty and proper utilisation of human and non-human resources, must work out spatial and administrative strategies linking up decentralised micro plans and centralised macro planning and ensuring the influence of policy making agencies over the information and control mechanisms for successful implementation. This approach would involve a major change of planning policies from those accepted at present. The implications of this reversal in terms of structural change and institutional transformation call for further careful discussion.

# MEDICAL EDUCATION — WHOSE RESPONSIBILITY\*

## The Spectrum :

The responsibility for medical education depends on the nature and coverage of medical education. Both the nature and coverage of medical education are large and varied. There is first the education of the individual, because health is after all an individual responsibility and decision, and medical education must begin with education of every individual in matters concerning his health. There is then the education of the para-professional health worker in the village community, including the *dai* and family planning worker, as well as the professional health worker and health assistant. A third group is the various indigenous medical personnel belonging to the Ayurvedic, Siddha and Unani systems and those entering the homoeopathic stream. A fourth group are the nurses and pharmacists. A fifth group comprises the student who is training to become a general practitioner. The post-graduate medical students constitute a sixth group. A seventh group is the medical specialist—ENT, Cardiologist, Gynaecologist, Anaesthetist, etc. A final group is the medical teacher and medical researcher.

This wide spectrum of medical education must also be viewed as a sub-sub-system within the education and training sub-system in a country, which in turn is part of its economic and social system. The

responsibility for medical education is a function of the precise level of the education in question, the content and method of the education in use, and the general arrangements for education that exist in practice and are aimed at in policy.

## Medical education of the individual and the community :

Starting with the education of the individual in health matters, the content of such education should be learning about the human body and how it functions, essential foods including such elemental matters as the importance of sanitary ways, boiling water before drinking, simple health skills and preventive and prophylactic habits and the ability to care for oneself and others in the family in case of illness, together with knowledge of how and when to call for the advice of the para-medical or medical personnel. The responsibility for medical education at this level of the individual and family falls into three groups of considerations. First, the kind of abject poverty and sub-human levels of living in which the majority of our people exist in the rural and urban areas, on the one hand, and individual health conditions or tradition, on the other cannot co-exist. Medical education at this level demands as a pre-condition the early and effective removal of the poverty conditions in which the majority of our fellow-men, women and children live.

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\* Extracts from the Address of Dr. Malcolm S. Adiseshiah to the XVI Annual Conference of the Indian Association for the advancement of Medical Education, Chandigarh on March, 12th—13th, 1977.

This means first a basic restructuring of our unjust social system with its unequal property rights and assets ownership, and its system of rewards, on the basis of which alone the various programmes of increased employment and adequate earnings for the individual and the family can make a successful impact on the national objective of poverty eradication. This also means that all of us interested and involved in medical education of the individual, in enabling each person to be equipped with basic knowledge about his health and care of illness, have also to be involved in efforts to change the structure of our society as well as in the various technical means which must go along—side of creating a less unjust society, such as the efforts to increase the productivity of the small and marginal farmer and improved employment conditions for the landless labourer and urban poor.

A second group of actions involved in developing health traditions of the individual and the family is our own age-old habits, customs and values. When it comes to the education system or restructuring of society or use of science and technology to deal with our poverty problem, I am on the whole anti-tradition, and agree with the caustic comment that resisting change and bowing to tradition in these cases is like giving our votes to the most obscure of all candidates who are our ancestors long dead and gone, which will simply usher in not a society of sufficiency, but a democracy of the dead. But in regard to the health care, knowledge and understanding, simple medically sound habits, customs and practices, I lay a great store on our traditional ways of looking after ourselves and our near and dear ones. There is a 2,000 year old classic in my language,

Tamil, called Tirukkural, where there is a whole chapter on 'Medicine' (The Tamil word is 'Marunthu'), but 9 out of 10 rules it sets forth have to do with eating carefully the proper foods, "if one were sure that the food eaten is digested before one eats, one's need for medicine for one's body is no more," following habits of cleanliness and sanitation, and only in the last rule is there reference to the doctor and nurse—"The patients, doctor, medicine and the male nurse all these four are treatment's four-fold parts, each one with its own parts four more." The link between health and freedom from poverty is stressed in the chapter on 'Mendicancy'—"If men quite free from the disease of refusal one could see, diseases all of one's own poverty will at once flee." The naturalness of dying as of living is set forth in the chapter on the 'Impermanence of things'—"Thing which is called death is like the deeper sleep of the scul, and birth is like the waking up of soul from sleeping." Such are our traditions of medical education. I have a feeling that we are rapidly losing this precious capital—the tradition of individual and family health and healthful living, because of the factors behind the general erosion of our traditions and because of the contribution which our medical science and our medical profession are making to the loss of this health conserving tradition of ours. And as I am speaking to medical scientists and the medical profession here, I wish to elaborate here only on the latter point.

I wish to ask whether the time has not come for the medical profession to recognise the need for some amount of de-professionalisation in the medical education of the individual and the community, similar to the recognition of some degree of deprofessionalisation by



the education profession in the de-schooling process and the launching of the individual on the paths of non-formal education now under way in this country. In general education we are turning to non-formal education to correct in some measure two of our educational ailments; first that the formal school and formal college could and produce and perpetuate obsolescence which is social irrelevance plus and is more dangerous to the individual and community than straight illiteracy: we are taking as more than a joke the widely held view that one's education begins when one has left college and successfully forgotten all the irrelevances learnt there: the second is that through its spoon-feeding monologue which we call lecturing, (which has been rather unkindly but not untruthfully described as the process by which information is transferred from the notes of the lecturer to the notes of the student without going through the minds of either), and its cramming methodologies, it saps at the living spring of the individual's self learning process. So too in the field of medical education, has the time come for us in the country to assess the damage to health caused by our medical treatments and ask ourselves whether the cost of healing and self-healing of the ills of the mass 60 per cent of our people living below the poverty line is not being dwarfed by the medical time, talent and cost that we are expending on extending by a few days, weeks, perhaps a year the aged sick life of our affluent microscopic minority. And even more serious we should ask ourselves whether we have taken away the power of the individual to care for himself. I ask myself this question whenever my cook, chauffer or gardener comes down with a cold and some fever for which the traditional remedy is a soup brewed of certain

local roots and nutritious food, but give in to their insistence on going to the doctor and pay him Rs. 4 for what they call 'getting the needle in'. On my return home after an absence of 25 years, I find that our mothers, aunts and other non-professionals have become excluded from the bedside of their ill, hurt or pregnant near and dear ones to the point where as a result, there is an accelerating demand for medical services which our medical establishment simply cannot meet. All this is in effect really a plea for letting basic medical care and knowledge get back to the individual and community, which in turn will involve a certain amount of de-mystifying and de-monopolising of the mysteries and monopolies that we have built up under our professional establishments, and giving our tradition of non-professional but committed medical care and self help a chance.

The third group of factors involved in the medical education of the individual and community is the responsibility of all forms and levels of formal, non-formal and informal education—It is the function of the school, the college, the training establishment, the Nehru Yuvek Kendras, NSS, the farmers' functional literacy centres and adult education and literacy efforts, the newly developed non-formal education classes, the *Mahila Manrams* as well as our old and new mass media—the news-papers, the radio and television—to provide each of its learners and listeners the simple and basic elements of promotive and preventive health care in its widest sense, including information on environmental care, safe drinking water, disposal of waste and excreta, control of communicable diseases. The responsibility for medical education of the individual and the

community in this sense is that of the general education and training system of the country.

### **The medical education of para-professional and professional Personnel**

I turn next to the question of the responsibility for the education of the medical para-professional and professional worker. The para-professional as well as the professional medical worker would be a fall-out of the system of a medically self-reliant community that I have elaborated at some length when dealing with the medical education of the individual and community. The men, women and young persons in the family who have learnt to look after themselves, care for and nurse sick persons in the family and among friends and neighbours, and the traditional self-employed and motivated dais and other voluntary health workers will form the core for this group whose numbers can be increased by a programme of selection and training from among the growing number of educated unemployed in each village, including some 1.5 million women with matriculation qualification and above in our rural areas according to the 1971 census. This group which includes the midwife, the family planning worker, the health workers who are employed in the communicable disease programmes will have to be massively organised with the help of the local agencies by the State government on a massive scale—massive as to provide at least one of each for every 100 families. The responsibility for their education, including establishing the duration and content of their training programmes, the mass preparation and production of their learning materials and provision for their periodic (once in 2 or 3

years) retaining is financially and in terms of planning and direction that of the local government ideally, but will have to be started on a selective basis as a national programme by the Union Government, using our best medical talent for the education of this key group. I notice that we retire our doctors in teaching hospitals at 58, when they are at their most mature age and stage. This group can also be given responsibility for the education of that other key class—the professional health worker and health assistant. The professional health worker will be responsible for diagnosing and dispensing specified, in some cases patent remedies including traditional ones to deal with every day illness. The Srivatsava Committee has recommended a rapid increase in this group to attain a national target of one male and one female health worker for 5,000 persons. This is one-fifth the coverage that I have recommended for the para-professional worker, but even so would mean the education and training of some 4,00,000 health workers by the end of the century when our population will be some 920 million. The other professional group is the health assistants who will have the double task of supervising health workers (in a ratio of 1:2) and themselves dispense specified medicines plus undertaking promotive and preventive health measures. For the education of this latter category, the health assistants, in addition to specialised training that should be provided by the medical colleges for those who are selected from among the health workers, the universities can introduce a new educational programme—B.Sc. in Health Sciences. The target for this group by the end of the century will be some 2,00,000 health assistants. Given the fact that some 5,00,000 of the 5.5 million of educated unemployed are currently B.Sc.s turned out by our universities, this ultimate global target is realisa-

ble. Two universities have made a start with this new course—Osmania and my university—and I have no doubt that all universities will take on the responsibility for training this essential and key link within the health chain.

### **Indigenous medical personnel and homoeopaths :**

In regard to the education of doctors of the Ayurvedic, Siddha, Unani schools and those of the homoeopathic tradition, there are two responsibility problems. First, as at present no one seems to be responsible for the vast array of medical practitioners belonging to these schools—and in most of our villages they are the only medical personnel available to our people—particularly to the poor majority. There is no more urgent need than for the Union and State Governments to take the same responsibility for organising and financing the education of both those who are practising medicine in this area and those who are planning to take up a medical career in the indigenous and homoeopathic schools. The educational responsibility here is also that of the universities who should establish university faculties of indigenous medicine and homoeopathy, as some have done in the latter instance. This is the only way in which the scientific basis of this systems can be ensured and strengthened and continuing and ongoing research in them act as a continual feeder for raising their levels of efficiency. I for one regret that our political and economic swadeshi and self-reliance movement has left untouched this rich treasure of our medical heritage, and under the overpowering influence of what we call modern medicine have allowed this area to be surrounded by a conspiracy of silence and neglect. The second problem is even more worrisome—and that is

the lack of any relation—leave alone move towards synthesis—between the established (western) medical education and such attempts as exist in regard to the education of indigenous medical personnel and homoeopathic doctors. I realise that in some post graduate medical programmes there is nodding acquaintance accorded to the latter. But the relationship between the two areas is not even that existing (sometimes resembling armed hostility) between the mill and handloom sectors in textiles, or the sugar and the khandasari sectors in the sugar industry. I for one prefer armed hostility to benign neglect, because at least in the former case there is continuing dialogue and some results in the consequent rubbing off process. A start can be made by organising State Councils of each of the indigenous schools along with All-India Councils and for them to be represented on the Medical and Health Commission proposed by the Srivatsava Commission.

### **Medical Education for the general Practitioner, and his teacher**

On the responsibility for the education of the general practitioner, so much has been written and agreed upon from the time of the Bhore Committee, the 1955, 1958, 1960, 1961, 1967, 1970 and 1975 Medical Education Conferences or Conferences of Principals and Deans of Medical Colleges and two Mudaliar Committees, the Kartar Singh and Srivatsava Committees, that I will not attempt to traverse once again this well-trodden ground, but will instead raise certain specific questions in regard to the medical education of this general practitioner and the responsibility for such education.

First, in the area of aims and objectives of undergraduate medical education which

are exhaustively and attractively set forth in the prospectuses of our medical colleges, the relation between these idealistic statements and the actual overloaded and irrelevant content and the poor and low performance rating in terms of undergraduate education, reminds me of the graphic description of the pathways to hell as being paved with good intentions, I shall merely raise one question in this area of goals and objectives. Can we all agree that the objective of undergraduate medical education is education in the behaviour of the students dealing with the total needs of the community? There are two major inter related elements in this statement. One is that undergraduate medical education is behavioural education and the other is that the behavioural training relates to the capacity and the skills of the student when he leaves college to practise medicine in the community. Lest this also become another platitude in which so many of our statements of objectives of medical education abound, I would like to be a little more precise about the double requirement. First a doctor is not born, he is made, both scientifically and even more behaviourally Undergraduate medical education is learning medical science and behaviour so that the student is at the end of the course a different person from what he was when he started, and has learned to fulfil the exacting role that local community health problems, themselves a function of the social, cultural and economic settings from which they arise, impose. Now the responsibility involved can be defined. For it means, that the behavioural sciences are as much a part of medical education as the preclinical or clinical sciences. This means that the students should have the medical education that they and the community health spectrum dictate, not what the heads of each department think is good for them

and impose. This means that the teaching technology and evaluation system should arise from this behavioural and community health objective and not as at present the examination dominated education (including the allocation of 10 marks in every paper for community health), deciding what is learnt and how one behaves or misbehaves in his life as a doctor. Second I am also assuming that we reject the false antithesis that is drawn between theory and its application, between capacity to conceptualise and skills to serve the community, between medical science and community health promotion. Undergraduate medical education like all education and science can and must conform to the rapidly developing store house of knowledge which the medical sciences are to-day characterised by, as well to the imperatives of training the student to test all this knowledge in the community health problems surrounding him.

A second question relates to the curricula and teaching. The launching of the new pattern of education—what is called the 10 + 2 + 3 system—gives us an opportunity to review comprehensively all undergraduate programmes—in the social, human and natural sciences, languages, agriculture, engineering and medicine. In this re-examination as far as medical education is concerned the traditional overloading of the first three years of undergraduate curriculum with quite unnecessary and irrelevant details of what we call the basic sciences and pre-clinical disciplines goes against the behavioural and community health training objectives indicated earlier. For one thing psychology and sociology have to be introduced in the programmes to turn out the different kind of man the student as doctor has to be, and for another there is a real case for histology

and biochemistry and other details of basic medical sciences coming up later in the course and at a less voluminous level. Anyway this lightening and turn around of the undergraduate curriculum is the only way in which it can be given the community orientation it demands and needs. The other related question is with regard to teachers and teaching technology. On the teaching methods and technologies we have a wide array of choices awaiting us: individual and small group learning using tested materials for self-instruction, tested problem solving exercises, readings on community health problems and solutions, programmed instruction, multi-media systems, which will enable us no longer to neglect the interaction of medical education and the social system and the social and institutional aspects of community medicine.

I end with the key to the relevant and balanced curriculum and its behavioural and community health impact—the teacher. The medical educator who is the responsible agent faces two handicaps. First, this undergraduate setting that I have outlined is a new and puzzling world to the teacher who has been brought up in the anti-community—irrelevant orthodoxies of the past. I am of the opinion that the professional preparation of the undergraduate teacher in medicine (as well as the complete retraining of the existing teaching corps) is probably the most urgent priority facing us in the discharge of undergraduate medical education. Universities must now set about devising this medical pedagogic preparation. We are attempting to do this in the University of Madras. The second is for the teacher in undergraduate education to be given the time to teach. Teaching like learning is a whole time job and the teacher as learner and as teacher of the

techniques of learning must be able to combine his teaching skills with his community health service in some rational and balanced manner. This whole area of the responsibility for the content, methodology, evaluation and the end purpose of undergraduate medical education needs the guiding, standard setting and directing hand of the Medical and Health Education Commission recommended by the Srivatsava Committee on which I hope there can be consensus at this conference. There is a related question of whether the special and some what unique demands of undergraduate medical education, whose profile I have tried to outline, as well as postgraduate education and research futures for the country does not call for Medical Universities. As one committed to decentralisation and disaggregation as the hallmark of true learning, I see the need for such specialised medical science institutions.

### **Medical Education of the specialist and researcher**

I shall end these notes with some thoughts on the question of the responsibility for the training of the specialist and the researcher. On this also I shall be selective. I am for more attention and more resources being devoted for postgraduate training for the training of specialists and for more adequate provision for medical research. The responsibility here is that of the University and the medical faculty within the universities until such times as Medical Universities are set up. At present we have neither good and sound undergraduate medical education nor good and sound specialist training at levels of excellence. If the undergraduate education was focused on community health, a good deal of the overtraining for the community orien-

ted function which is also a form of under-training for it can be corrected. We need an increasing number of real postgraduate medical centres and specialised institutes which the Health and Medical Education Commission should commission and fund. And this is equally true of medical research, where we are lagging very badly behind, not the research output of the affluent countries, but in relation to meeting our specific community-oriented health spectrum. In fact for feeding this programme, we have to design and

develop our own research and we need to give ICMR the wherewithal to spread this essential ingredient of the total health of the individual and the community. What this means in terms of the priority areas for investigation and the search for breakthroughs, what it means in terms of full-time devoted trained research manpower, what it calls for in terms of research infrastructure and research ambience and ethos are areas demanding further careful study and investigation. ICMR can do this. Let us give it the tools to do it.

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# BOOK-REVIEW

## RURAL HOUSING IN TAMIL NADU

By

V. RENGARAJAN

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(Sangam Publishers, Madras-600 001)

Rural Housing is an important problem meriting more attention than it has received in economic analysis and plan policies. The material inputs are largely drawn from local sources in rural housing and its genre too is much affected by local cultures. Barring a few instances even in the areas touched by the Green Revolution, the conditions of rural housing changed but slowly or not at all. Mr. V. Rengarajan in his monograph on 'Rural Housing in Tamil Nadu' stresses the need for collection of housing statistics and gives some glimpses of rural housing conditions on the basis of the data drawn from the National Sample Surveys and the various village studies carried out at the Agro-Economic Research Centre, University of Madras. The effort is commendable for

seeking to grapple with an important aspect of the rural economic problems of Tamil Nadu. The monograph points out that many landless workers do not qualify for assistance under the schemes for marginal farmers and agricultural labourers owing to the lack of an owned homestead. The efforts made by the Tamil Nadu government for housing are described in the work. *The usual exponential model* is used by the author to derive rates of growth or progress in the housing sector. The logistic model was proposed as a methodological tool but not followed up. There are interesting tables and charts in this monograph which however could have been more concise.

B. KRISHNA RAO

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