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EDITORIAL—SOME HIGHLIGHTS

1. General Economic Scene

State :

Fifth Plan : Discussions are underway between the State authorities and the Union Planning Commission on the Third Annual Plan (1976-1977) and the revisions to the Second Annual Plan for the current year. The changes in the current Plan brought about by the drought relief activities that were referred to in the last issue p. 388 as well as the results of the discussion in the Annual meeting of irrigation ministers to be referred to later and the discussion and agreement between the Union and State ministers of Agriculture have to be incorporated in the ongoing Plan. The government has set up a four man panel to examine and review the functioning of the Department of Statistics and recommend the appropriate organisation and the specialised staff with ability to work with computers and other mechanical aids to better serve the State Planning Commission and the State and Union government departments. This was a problem discussed by the State Planning Commission (see Vol IV pp 110 and 111) when establishing the Perspective Plan and its recommendation is now given effect to in setting up this panel.

Drought and Prices : With the South West monsoon in full swing in July, the impact of the drought was limited to Ramanathapuram, Pudukottai and parts of Tirunelveli and Madurai which do not benefit from the monsoon. In these four areas drought relief works were continued

and new projects started in July and it is likely that these will continue till the end of September when the North East monsoon will begin. In July the government sanctioned an additional Rs. 4 crores for drought relief works in these areas. In addition, Madras city and a greater part of the State continue to face drinking water problems and the relief works in this area also continue. From October 1974 to June 30, 1975, the government has expended on drought relief Rs. 24.56 crores; it has granted takkavi loans of Rs. 3 crores to farmers in drought hit areas; plan funds of Rs. 25 crores last year and Rs. 15 crores this year have been spent in the drought districts on plan projects; and on drinking water, the Water Supply and Drainage Board has spent Rs. 4 crores in these areas. The Union government provided Rs. 7.5 crores in February (see Vol V p-195), and its further grant on the basis of the Union team's visit and recommendation is awaited. The price situation in the State continues to be a difficult one. The State received from the Union a rice allotment of 25,000 tonnes and a wheat allotment of 68,000 tonnes in July. In addition it received Union agreement to purchase broken rice from Andhra Pradesh whose millers are burdened with huge stocks of broken rice. Of the one lakh tonnes of rice purchased from Thailand at a total cost of Rs. 250 per quintal, the State received a first consignment of 9,800 tonnes conveyed by the 'Argosy' and taken delivery by the Chief Minister on July 31. It is supplied

at the subsidised rate of Rs. 150 per quintal. - Also following the reduction in the issue price of wheat to roller flour mills from Rs. 170 to 150 per quintal, the government ordered the reduction by 25 paise in the retail price of wheat. All this has resulted in preventing a sharp rise in the price of rice, which in July went up in open market by 15 to 20 paise per kg. On July 29 the government reduced the issue price of rice for those eligible for purchasing it at the fair price shop by 20 paise a kilo: the old price is shown in brackets. Coarse Rs. 1.60 (Rs. 1.80), medium Rs. 1.70 (Rs. 1.90), fine Rs. 1.80 (Rs. 2.00) and super - fine Rs. 1.90 (Rs. 2.10). For August the Union allotment of wheat is 68,000 tonnes plus 72,000 tonnes to the roller mills and 30,000 tonnes of rice. The prices of edible oil declined (50 paise—Rs. 1) as did dhal (20-30 paise). In this regard the government called the attention of traders to the DIR order in 1973 requiring them to display the stocks of essential commodities they sold and also exhibit the cost price and sale price of each commodity. This is having a beneficial effect on all prices except rice where the supply situation continues to be the problem. The government added in July 11 more articles to the Tamil Nadu Essential Commodities order of 1973, which has made the trade to display prices on 24 commodities. The Coimbatore Model Shop scheme which is being extended to Coonoor and Tiruchy which are 3 of 36 towns in the country (see last issue p 389) will also help if the supply of the commodities is continuously available and shortages are not created in other areas. CSO's monthly abstract shows for January 1975 a lower price for industrial workers (321 clothing, 367 food and 327 general) compared agricultural labourers (494 food and 429 general), with Madras continuing to be lower in its price rise at 311 compared to Madurai at 313 and Tiruchirappalli at 329. But rice

prices in the open market in Madras are the highest in the State and at one point in July touched Rs. 5.40 per kg.

Power: The power position in the State in July continued to be normal, in extension of the lifting of all cuts reported in the last issue (p. 390). The needs of 23 MW were met by the full hydel reservoirs in the State and in fact the thermal stations generation was slowed down in order not to overload the lines. Kerala continued its power supply to Tamil Nadu at the rate 1 MW a day even after the expiry of the agreement as its hydel storage position also was satisfactory. Some additional use of power in July in the State followed the IOC take over Calgas supply to 34,000 customers in Madras, Salem, Erode, Vellore, Kancheepuram and Pondicherry, which resulted in a plan to cut back about 50 per cent of IOC subscribers having 2 cylinders to one, so that the backlog of demand (50,000 new subscribers in Madras alone) would be met. During this period in early July for over 3 weeks there was also an interruption in gas supply because of a short fall of 30,000 tonnes in crude processing due to a defect in the Manali Refinery Equipment, reducing its cooking gas output from 2,700 tonnes per day to 600 tonnes. Both power and kerosene consumption consequently increased in July. The State Electricity Board, as in all States, has agreed with the Union Energy Ministry to absorb the Rs. 17.50 per tonne increase in the price of coal, which will be referred to later and not pass on this 5 per cent increase in its output cost to the consumer. Ennore will have its fourth 110 MW set commissioned in August.

For the country as a whole, there was an improvement in the power position in view of the good South West monsoon

and consequent increase in hydel generation, the improved performance of thermal stations and the additional 1,720 MW capacity created in 1974 - 75. For this year an additional 2,600 MW is being installed, so that energy production will increase from last year's 70,000 million units per day to 84,000 million units. Punjab which had severe power cuts (see Vol V pp 3 and 73), had surplus power in July, its daily consumption being 80 to 85 lakh units against supply of 90 lakh units, including 16 millions from Bhakra, which also eased the Haryana power situation. In Rajasthan and UP power availability increased by 0.4 million units and 6 million units a day respectively. Andhra Pradesh was short and was helped by Tamil Nadu. Karnataka also was a little short (3.24 MW per day) but reduced its power cut on high tension consumers from 40 per cent to 25 per cent. The Idikki project in Kerala will add 16 per cent to its generation, a useful standby for this State in the summer months. A standing committee of BHEL, State Electricity Boards, and the Central Electricity Authority has been constituted to review the performance of all newly commissioned units and take action to rectify defects. The Union government is setting up a full-time Central Electricity Authority consisting of a Chairman and six members to prepare a national power plan, perspective annual plans, and monitor and undertake techno-economic feasibility studies of power projects. This restructured Authority is part of the plan to revitalise the power industry in the country. One of its first tasks should be to examine the distortions that are likely to result from the rising costs of power projects. The Draft Fifth Plan's provision of Rs. 4,960 for an additional 16.55 million KW generation was not made on the basis of detailed project reports, but on the basis of unrealistic

estimates. Already in 1973, the Energy Ministry estimated that for the Fifth Plan's proposed generation an additional Rs. 2,200 crores would be needed. The Central Electricity Authority should therefore get the States to submit rapidly detailed project reports, and on this basis get the Planning Commission to allocate realistic resources, bearing in mind that a thermal project's gestation period is 5 years and a hydel project's is 7 to 8 years. The Energy Ministry is also getting power authorities and CMA to test the coal supplied to thermal stations as suggested by the newly constituted standing committee referred to earlier. The Union Energy Ministry has also set up a special cell to keep a constant and close watch on supply of power to priority industries and agriculture through a monthly monitoring system, to oversee the progress of some 50 power projects to ensure that they are completed on time and to keep a record of the power supply in relation to production targets of the core sector. This will certainly improve the functioning of the power units—hydel and thermal—and ensure optimal use of power by the consuming industry. The Thermal Designs Organisation (TDO) of the Central Electricity Authority has begun preparing detailed project reports for the 4 super thermal power stations at Korba, Farakka, Neyveli and Singrauli, whose total cost is estimated at Rs. 2,100 crores. The World Bank which has been approached to help in financing these projects will require these detailed reports, particularly with regard to the transmission lines arrangements to disseminate the power link to the coal mines and the total load demand for both the Fifth and Sixth Plans. The CEA should also avoid situations like Bihar where the Army had to be put in charge of power generation until the four separate generation organisations were set up and the State Electricity Board

made a policy - making and co-ordinating authority.

Madras water supply: During July there was rain in Madras City, being part of the tail end area of the monsoon, aided by the artificial rain making programme referred to as a plan in the last issue (pp.389 - 390). The US expert team started the seeding of rain bearing clouds over the Poondi and Red Hills lake area from July 12 and continued with it till the end of the month. They will then move to Coimbatore for similar operations over the hydel areas of the Nilgiris and will also continue the programme in the Madras City area. The seeding is done at altitudes ranging between 3,500 metres and 6,000 metres, with the piper Comanche Plan, specially fitted to discharge silver iodide of varying weight into the clouds. The project is backed up technically by the Meteorological Department, the Agricultural University of Coimbatore and the International Airports Authority. It is too early to decide to what extent the rains in July were due to the cloud seeding activities and to what extent there were part of the normal monsoons. In any case the rather desperate water famine situation in the City was relieved by daily rains. By July 24 the storage in the Poondi reservoir was 412 million gallons, the water being piped to Red Hills, (24 miles away) through lined channels. Red Hills also received 13 mm of rain - fall, as did Cholavaram and Tamarapakam. As a result, the corporation authorities are continuing water supply to the City on alternative days and have postponed the shift to once in 3 days to an indefinite future. The government has also approached the United Nation's Development Programme to prepare a short-term and long range programme of water supply for the City

through a feasibility study which will (a) provide studies and designs to facilitate early rehabilitation of existing water supply and sewerage system in the Madras Metropolitan area, (b) identify and recommend immediate works to be undertaken to alleviate the current water shortage and improve the sewerage system and (c) recommend long - term measures to supplement the benefits from the Veeranam stage II scheme. The most practical and important next stage is to negotiate with the Andhra Pradesh Government for the supply of water from Krishna and Godavari even as these long-term feasibility studies are being undertaken.

Inter-State water disputes: In this context, it is satisfactory that 4 States, Madhya Pradesh, Maharashtra, Orissa and Andhra Pradesh have reached an interim, tentative agreement to discuss the use of 315 TMC feet of water out of the 3,000 TMC feet of Godavari water, of which only 1,000 TMC feet are being used, because of the dispute between the 4 States now being examined by the tribunal. The interim accord if confirmed will help bring under irrigation about 2.80 lakh hectares just in Madhya Pradesh and in the most backward part of that State under irrigation. It would be good if a similar agreement between Tamil Nadu and Andhra Pradesh could be reached on use of Krishna waters for the City's drinking water purposes. Meanwhile July saw the worsening of the dispute between Tamil Nadu and Karnataka over the use of Cauvery waters. Karnataka took the position that the 1924 Cauvery agreement which expired last year no longer bound the State, that Tamil Nadu was wasting Cauvery waters and that a new approach for sharing of Cauvery waters should be evolved. Tamil Nadu accused Karnataka of storing Cauvery water at K. R. Sagar

beyond the agreed limits and thus decreasing the inflow into the Mettur reservoir and of storing more than its share in the Kabini and Hemavathi reservoirs which also decreases the flow into Tamil Nadu. With these positions, there is a virtual deadlock in resolving this issue and Karnataka is going ahead with its irrigation projects and the technical discussions between the engineers and between the ministers have been without much avail. Unless the Union government is able to bring about some arrangement between the 2 States, it looks as if the issue will have to be referred to a tribunal or the Supreme Court, with all the delay to the farmers and people of the two States that such a procedure involves.

Non-agricultural indebtedness and urban land tax : In July the government issued an ordinance extending to the non-agricultural poor, the moratorium on their debt to private money lenders which has been granted to agriculturalists under the Tamil Nadu Indebted Agriculturalists (Temporary Relief) Bill passed by the legislature in March (see Vol V p 264). Under the ordinance, the moratorium will apply on all repayments of principal and interest except in regard to State, co-operative and commercial bank loans for all those non-assessed to sales or income tax or property tax on annual rental value above Rs. 2,400. The State's initiative helps the urban poor—that is those with a monthly income below Rs. 300/-. The government also plans to revise upward the urban land tax on land above 2 grounds used for commercial purposes, as a result of which the revenue from this tax would increase from the current Rs. 2.5 crores to Rs. 4 crores. Urban land tax is currently levied in 5 cities—Madras, Madurai, Coimbatore, Salem and Tiruchi.

Regional Plan : Further to the regional

plans developed for 2 regions (see Vol II No. 12 p 52 and Vol III pp 155-156), in July the third regional plan for the Vellore-Dharmapuri area was finalised and released. The Plan identifies growth centres in the region, proposes the industries based on the region's natural and man-power resources that should be developed and pays special attention to the development of backward regions.

Transport : Port dues in Madras have been increased by 400 per cent by vessels using the Bharathi Dock outer harbour, 200 per cent for those using the inner dock and 100 per cent smaller for vessels in order to raise an additional Rs. 5 crores per annum and wipe out the port deficit. This will also generate resources for future development and ensure efficient services. By the end of July the oil jetty draft was increased from 42 feet to 46 feet, tanker storage increased by 10,000 tonnes, the mechanical iron ore berth will go on stream in December and it is only the Rs. 7 crore fisheries harbour to handle 50 fishing trawlers, 500 mechanised boats and 80,000 tonnes of sea food which will be ready by 1977. The Southern Railway is increasing its diesel fleet by 8 engines and expanding its good movement by one million tonnes and passenger service so that its gross earnings this year will be Rs. 145 crores. With the improved coal and power situation, restoration of all cancelled suburban trains, electrification of Madras-Trivellore section and doubling of the Arkonam-Gooty track, this target should be attained. In the air service area, an integrated air cargo complex at Meenambakkam airport is being established at a cost of Rs. 10 lakhs in the first 22,650 sq. feet stage, which would serve as a transit shed for the quick clearance of goods and raise air cargo exports by 15 per cent. From July 1, the seven States long distance inter-State agreement

covering Karnataka, Andhra Pradesh, Kerala, Tamil Nadu, Maharashtra, Pondicherry and Goa increases the number of vehicles by 250 for each State and trade between them. In accordance with recommendation of the meeting of the Transport Ministers of the Southern States, an Institute of Road Transport has been set up in Madras at a cost of Rs. 50 lakhs contributed by the State Transport Corporation. The institute will perform urgently needed service in providing management training as well as R and D in the transportation field. In order to meet the growing demand for bus transport, the government is putting 1,000 more buses on the road including 150 in Madras.

Housing and Welfare : The government has increased the credit limit for construction of rural houses from Rs. 4,000 to Rs. 5,000, with the repayment period of 20 years. To date Rs. 3 crores have been loaned under the programme and Rs. 25 lakhs construction is underway. In July, the Slum Clearance Board opened 5 new tenements replacing slums in Kuppaimedu, Goyyathope, Perambur, Karunanidhi Nagar and Gandhi Nagar. A small rent of Rs. 14 is collected from each tenant in these multi-storeyed tenements. This makes a total of 16,538 tenements at a cost of Rs. 17 crores. Another 4,000 more tenements are under construction and will be opened for living in September. The social problems of working women was the subject of a 3 day seminar in Madras which recommended fuller use of educated and trained women in the State—a resource now being wasted.

National :

Second Annual Plan : The July meeting of the Lok Sabha reviewed and approved

the Second Annual Plan (1975-76), updated and revised to take account of subsequent decisions since it was presented at the March/April session of the Lok Sabha (see Vol V pp 201 and 267). The total annual outlay is Rs. 5,978 crores, a 23 per cent increase over the first year (1974-75). Reiterating in Plan objectives of growth with stability and social justice, the Plan provides Rs. 691.41 crores (Rs. 638.42 crores last year), plus Rs. 468.22 crores (Rs. 638.42 crores last year), on irrigation and flood control to attain the food grain target of 114 million tonnes. The power provision is Rs. 1,101.58 crores (Rs. 766.55 crores last year), for coal Rs. 230 crores plus Rs. 25 crores under supplementary grants (Rs. 95 crores last year), for crude oil Rs. 245 crores (Rs. 138 crores last year), for textiles, cement and paper public sector units Rs. 64.2 crores (Rs. 38.7 crores last year), for village and small industries Rs. 73.89 crores (Rs. 63.81 crores last year), industry and minerals Rs. 1,644 crores (Rs. 1,093.28 crores last year), transport and communications Rs. 1,040.44 crores (Rs. 1,026.61 crores last year) and social services Rs. 782.82 crores (Rs. 699.06 crores last year). The Plans will be financed by Union raising Rs. 3,257 crores and State Rs. 2,721 crores including Rs. 448 crores (Rs. 829 crores last year) as gross surplus of public enterprises and Rs. 631 crores as net foreign aid. If prices are stabilised as is the current trend, this will be the first year in the last five years when the rate of investment in the public sector will be high and the private sector investment also can be expected to increase. The resource mobilisation also would be the highest in the last 2 years, being Rs. 1,048 crores in 1974-75 and an estimated Rs. 1,545 crores for this year, which will result in surpassing the Fifth Plan target of Rs. 6,850 crores. The social justice objective is met by providing Rs. 190.06

crores for the minimum needs programme, expanding of employment opportunities, increasing mass consumption goods production and ensuring their wide distribution and providing Rs. 40 crores for tribal and hill areas development. One point made by the Planning Commission is the need to increase agricultural taxation by the States which last year contributed only Rs. 27 crores against Rs. 1,048 crores additionally raised as noted earlier and will yield Rs. 48 crores against the Rs. 1,545 crores being raised this year. There is also need to further revise irrigation rates which was revised to yield only Rs. 11 crores last year and Rs. 23 crores this year, and establish an electricity tariff which will wipe out this year's expected power deficit of Rs. 116 crores. Deficit at the Union and State levels are to be limited to Rs. 655 crores, of which Rs. 330 crores are for payment of imported food grains and fertilisers. Market borrowing is established at Rs. 775 crores (Rs. 325 crores for the Union and Rs. 450 crores for the States) and small savings at Rs. 330 crores (Union Rs. 110 crores and States 220 crores). The public undertaking operative income before tax is estimated at Rs. 250 crores compared to last year's Rs. 148 crores. Following the conference of Irrigation Ministers to be referred to later, the Planning Commission is working on a new formula for allocating resources to the States for completing irrigation schemes which would give priority to major projects to be completed speedily and benefit large areas. In the process it is important that other criteria such as the record of resource mobilisation, population etc. of the Gadgil formula are integrated into the new scheme.

Supplementary demands and Union loans: The July meeting of the Lok Sabha also passed the first supplementary grant for the year of Rs. 285.76 crores,

comprising Rs. 75 crores as advance plan assistance to the States for investment in power and irrigation, Rs. 30 crores as short-term fertiliser loans to them, Rs. 5 crores as loans for cleaning handloom stocks (Rs. 4 crores already advanced to the 4 Southern States, see Vol V pp 288-289 and last issue p 414), Rs. 50 crores as short-term ways and means advances to the States, Rs. 10 crores for Neyveli, Rs. 20 crores for ARC, Rs. 10 crores for the World Bank group and Rs. 15 crores for IOC pipe lines at Salaya, and Rs. 29 crores for Korba fertiliser plant. CMA is provided Rs. 16 crores, BCC Rs. 7 crores and Singareni Rs. 2 crores. The approved demands are a consequence of decisions taken following the adoption of the Union Budget and the 20 point programme announced by the government. On July 17, the Union government announced the floating of 3 loans aggregating Rs. 400 crores, in the first phase of its borrowing programmes. The interest rates offered are in line with current market redemption yield at 5.5 to 6.5 per cent. On July 26, the loans were fully subscribed to the extent of Rs. 440 crores including the allowed excess subscription. After allowing for conversion loans the net receipts will be Rs. 240 crores.

State of the Economy: The Second Annual Plan document estimates that for the Fourth Plan the rate of growth of national income was 3 per cent and that for the last year of the Plan 1973-74 it was 3.1 per cent. It also makes the tentative estimate that for the first year of the Fifth Plan, the rate of growth of the national income was around 2 per cent against the annual plan target of 5.5 per cent. There will have to be a special effort during the remaining years of around 7 per cent to make up the leeway. Following the Emergency declared on June 27, the Prime Minister announced a

20 point programme on which immediate action is to be taken with a view to increasing production and improving the position of the weaker sections of the society. The programme which is in the main a focussing of declared aims and activities comprises: (a) Bringing down prices of essential goods through stream lined production, procurement and distribution of essential commodities and economy in government expenditure. (The 36 towns model shops scheme referred to earlier was one immediate result); (b) implementation of agrarian land ceilings, compilation of land records and speedier distribution of surplus lands; (c) stepping up of house sites for landless and weaker sections; (d) bonded labour declared illegal; (e) liquidation of rural indebtedness through moratorium on debt recovery from landless labourers, small artisans and small farmers; (f) review of minimum agricultural wages laws on which action has started; (g) 5 million more hectares to be brought under irrigation and a national programme for ground water; (h) an accelerated power programme, with super thermal stations under Union control; on which design and studies have begun; (i) new development plan for handloom sector; (j) improvement in quality and supply of people's cloth; (k) socialisation of urban land with ceiling on ownership of vacant land and plinth area of new houses; (l) special squads for valuation of property and summary trials and punishment of economic offenders; vigorous action on this is under way; (m) legislation for confiscation of smugglers' property; (n) liberalisation of investment procedures and action against misuse of import licences; (o) new scheme for workers' association with industry—discussions with industrial leaders and trade unions now under way; (p) national permit scheme for road transport; (q) income tax relief to middle-class by raising exemption limit from

Rs. 6,000 to Rs. 8,000, which was approved by the Lok Sabha in July retroactively from 1 April; (r) essential commodities at controlled prices for student hostels; (s) books and stationery at controlled prices; and (t) new apprenticeship scheme to enlarge employment and training, particularly for those from the weaker sections. As noted earlier, legislation, ordinances, executive decrees and preparatory work have been passed to abolish bonded labour along with States schemes to rehabilitate those released from bondage, the minimum wages act is amended to speed its execution and raise the level, the existing vacancies under the apprenticeship Act are being filled within a month and the number increased through amending the Act and participation of workers at the shop floor and enterprises level is being worked out. The Income Tax exemption limit of Rs. 8,000 which will cost the government Rs. 21 crores a year, has been worked out in slabs, so that those earning Rs. 15,000 and above will receive reduction in tax of Rs. 44 and those earning Rs. 9,000 receive a reduction of Rs. 264. On land reform, 15.3 lakh hectares are available for distribution (the largest being in Andhra Pradesh 4,00,000 hectares, Assam 1,71,200 hectares, Karnataka 1,60,000 hectares, Maharashtra 1,48,000 hectares and Rajasthan 1,19,200 hectares) and only 6.2 lakh hectares have been distributed so far. Here the State governments are being asked to move fast and act on the programme. Urban land ceilings are being legislated and under valuation of existing house sites checked. The government has announced a plan to establish 50 new rural banks to replace the traditional money lender and supplement the work of co-operatives and farmers service societies to reach small and marginal farmers and rural artisans. The Ministry of Industry has announced an increase of 10 per cent of all public sector

units production targets for the year as a result of consultation with managers of 40 units, along with a 10 per cent reduction in their budgets. With prices being held stable, this means that the total production of these units this year will be Rs. 950 crores. There is now a business like atmosphere in government and in departmental undertakings in place of the leisureliness and indiscipline that had been growing. But against the improvement of the investment climate that the 20 point programme provides for, the general inflation and changes in parity rates have raised the capital costs of new investment in tyres and tubes from Rs. 455 lakhs in 1972 for a capacity of one lakh to Rs. 560-600 lakhs, in paper from Rs. 2,700 per tonne first to Rs. 3,400 and now to Rs. 6,000 per tonne, in fertilisers from Rs. 2,900 per tonne to Rs. 3,980 per tonne, in cement from 2 lakh tonnes to 4 lakh tonnes at a cost of Rs. 700 tonnes, in textiles from Rs. 1,200 per spindle to Rs. 2,000 and in sugar mills from Rs. 25,000 per tonne for 1,500 per day crushing to Rs. 56,000 per tonne—making the incidence of fixed charges 3 times that of existing units, making the break even point 70 per cent of capacity against 40 per cent of the existing units. In these units, no major technological innovations have emerged to increase their productivity in order to compensate them for the very high capital outlay involved. It looks therefore that new units in these industries will have to be in the public sector.

Prices and anti-inflation measures:

June saw a continuing decline in prices from 312.2 in the index number of wholesale prices on May 31 referred to in the last issue (p 394) to 310.2 on June 28. In fact there was a 1.8 point decline during the week ending June 28, the other weeks maintaining a level above

312. This 0.6 per cent price fall for June did not continue into the following week, when the decline was 0.1 per cent due to the rise in the price of coal and steel, to be referred to later. The June decline was due to a 2 per cent fall in industrial raw materials prices, and a 2.2 per cent fall in the prices of jute manufacturers with a 0.3 per cent rise in the price of rice—during the last week of June. This record on containing inflation is a creditable one. In September 1974, the annual rate was 31.9 per cent, in May 1975 it had fallen to 2.8 per cent and at the end of June it was a little less than one per cent. At long last retail prices are not going up and some, like dhal, vanaspathi, sugar, (whose levy-price was reduced) edible oil and soaps, are beginning to decline. There are many factors to account for this: an all India monitoring centre in the ministry civil supplies on essential commodity prices, bank credit and money supply expansion has slowed down even in the busy season as noted in the last issue (p 394) with no increase in June, the 1974-75 budget deficit being established at Rs. 696 crores (against the revised estimate of Rs. 625 crores), with half the deficit being for food grains and fertiliser imports which is non-inflationary, a good record of the new branch banks, 50 per cent being in unbanked centres, a good rabi harvest prospect estimated to yield 44 million tonnes, the restrictions on term ending by banks with absolute priority for exports, core sector industries, agriculture, capital goods industries and backward areas and rigorous scrutiny by RBI of all credit above Rs. 1 crore, including that to the public sector units, increase in the number of articles for public distribution, the order requiring retailers to display prices and renewed drive against hoarders, smugglers and black marketeers making action against them non-justiciable, the drive of IDBI,

IFL, ICICI to raise Rs. 50 crores from the public, and the general trend to hold down prices. There were, however, upward revisions in some cases. On July 14 in light of the recommendations of the Oil Prices Committee, the price of kerosene was raised by 5 paise per litre, HSD by 8 paise per litre and cooking gas by Rs. 2.50 per cylinder to reduce the deficits of the refineries (see Vol IV pp 585 and 674). In addition it raised the price of coal by Rs. 17.50 per tonne from July 1 and steel prices by Rs. 80 per tonne from July 10. The control on commercial grade aluminium has been removed and in place this grade is to be produced up to 55 per cent of the total output of each unit which is the levy aluminium having to pay 50 per cent ad valorem duty plus Rs. 2,000 per metric tonnes, so that the levy price will increase from Rs. 5,994 per tonne to Rs. 7,062. The other 45 per cent is non-levy and will pay 40 per cent ad valorem plus Rs. 2,000 per metric tonne, whose price works out to Rs. 6,552 per tonne in place of the current Rs. 5,484 per tonne. The Electricity Boards have taken up the new power rates ranging from 7 paise per unit in Karnataka and Kerala to 11 paise per unit in UP and MPC (In Tamil Nadu 9 paise) and renegotiated their contracts with the aluminium smelters for a period of 5 years. Again from July 6 compulsory deposits of additional wages (see Vol IV p 532) were not required and the wages so deposited during the one year period were refunded, though the government appealed to the workers to leave their deposits for a further one year period and similarly not to draw any additional wages in return for the appropriate interest payment, as a means of containing inflation. The results of this appeal will be analysed in a future issue. Finally discussions between the government and Union government employees on the

additional DAs and the new formula continued in July, with the government making a gesture for those earning upto Rs. 750 per month not being required to produce municipal assessment returns to draw their house rent allowance, and both sides agreed that the objectives of the Emergency should be supported. But no agreement was reached, with the government and employees positions being what were analysed in the last issue p. 394.

National Production Front:

Private Sector: ICICI's survey of 626 private corporate sector companies in 1973-74 shows a good performance, increasing sales by 9 per cent, gross profits of 12 per cent, and retained profits going up from Rs. 96 crores in 1972-73 to Rs. 134 crores in 1973-74. Inventory needs, however, increased, involving higher bank borrowing by Rs. 72 crores, with a high 50:50 debt-equity ratio. This sample which covers only ICICI assisted industries is mostly in the non-traditional industry category and to that extent is not wholly representative. In May, the Union government issued 124 industrial licenses and 71 letters of intent in the fields of wires, tubes, bars, capacitors, vehicles, yarn, cigarettes, drilling machines, chemical machinery etc. which should fructify in operating units within one year. A sub-committee of the CACI is reviewing all licenses issued, refused and delayed and will be recommending its proper functioning in the future.

Steel: Steel production improvement continued in the first quarter of 1975-76. As noted earlier, consequent on the Rs. 17.50 per tonne increase in coal price and the 3 increases in the price of coking coal since nationalisation in May 1972, the government increased steel prices by Rs. 80 per tonne. Bhilai increased its

first quarter (April-June) saleable steel by 7 per cent over last year's first quarter to 3.8 lakh tonnes, ingots by 17 per cent to 4.58 lakh tonnes and pig iron by 21 per cent to 1.5 lakh tonnes. It exported 10,000 tonnes of saleable steel and will be quadrupling its export in the second quarter. By improved operation and economies it saved 60,000 units of electricity per day and the higher targets for the second quarter are being achieved. IISCO also is performing better with its capacity use going up to 52 per cent last year from 45 per cent the year before, and increasing its production by 52 per cent to 1.18 lakh tonnes during the first quarter. The costs of its rehabilitation have increased from Rs. 43 crores to Rs. 55 crores to be completed by March 1977. ASP in Durgapur increased its production by 50 per cent to 19,901 tonnes, being 80 per cent of installed capacity, with good financial results. Bokharo in adding to its large production of pig iron in which it has earned Rs. 17.4 crores in foreign exchange, is getting ready its hot strip mill for commissioning by the end of the year. The Union steel ministry is therefore reviewing the possibility of increasing the steel target for the year. It also reviewed the problems of 192 mini steel plants and the problems of power supply, shortage of scrap and slackening in demand that they face, and is arranging for the viable plants to act as complements to its integrated steel units.

Crude : The increase in the price of kerosene, HSD and LPG have earlier been noted. Refineries are expanding the production of middle distillates to meet the increasing demand through technological innovations, changes in product mix and selection of the crude imported as in Cochin where the yield has increased from 43 to 50 per cent. The government is withdrawing 201 million SDRs from the

1975 IMF oil facility to meet its oil import bill. It is entitled to draw 670 SDRs this year. A crash programme has been launched to increase LPG in order that IOC may execute the instruction to give 20,000 new connections every month to a total of 2.5 lakh new connections in smaller towns and hinter lands. HSD sales have increased sharply by 13 per cent in May to 6.19 lakh tonnes compared to 5.48 lakh tonnes in May 1974, and this growing demand by tractors and pumpsets is being met by increased production. Oil production from existing wells is being increased and exploration proceeding. A new area, Ramsahar in Haryana is being explored for crude, the setback in Mandapam where hard rock was reached at 1,600 meters is being reviewed with the help of the newly purchased Rs. 3 crore seismic survey ship, "Anweshak", which is capable of conducting gravity, magnetic and seismic surveys and five vessels (the Canadian firm's Cauvery exploration ship, the US firm's Kutch survey ship, the second US firm's Bengal survey ship and the 2 vessels from UK and Norway hired by ONGC) plus Sagar Samrat are at work on exploration work. ONGC has reached an agreement for a short-term loan of \$ 100 million from a Kuwait financing agency to finance the foreign exchange needed for the first phase of 2 million tonnes of crude oil from Bombay High. The loan will be repayable in 10 years and carries a 10 per cent interest rate. On the basis of this experience and its repayment capacity ONGC will be permitted to contract further loans to finance its further Bombay High plan to produce 10 million tonnes of crude.

Coal : Coal production in April and May was lower than February and March but the April to June production was 7.5 million tonnes a month, which works out to 90 million tonnes a year. From

September production should further increase and the total production for the year should be 98-100 million tonnes, with the price rise that has been decided. Pit-head stocks were 7.5 million tonnes in May and with the improved rail transport, the demand of all consumers should be met in full. The steel plants have an average week's stock, the power plants 2-4 weeks' stock, cement 4 weeks and railways are in a similar position. Coal beneficiation is improved, with better working of washeries, mechanised handling and joint sampling of the quality by the beneficiaries.

Iron Ore : The Iron Ore Board has in its report recommended early development of iron-ore deposits at Kumaraswamy area in the Bellary - Hospet region to a total of 8 million tonnes to meet the needs of the Vijayanagar steel plant whose total requirement will increase from 13.6 million tonnes in 1981-82 to 48 million tonnes in 1988-89, the balance of the requirements being met by other NNDC and private mines. The Board estimates the total reserves of all mines at 1,100 million tonnes. The Board also estimates that the Bellary - Hospet region should export 7.10 million tonnes by 1978-79, 5.30 million tonnes being through the Madras port. It also recommends a new pelletisation plant in the area with a capacity of 2-2.5 million tonnes, two crushing and screening plants with 1-1.5 million tonnes capacity, and improvement of railway lines between Bellary and Madras. India has signed in June end a contract with Iran to supply 220 million tonnes of iron ore over 28 years at the rate of 7.5 million tonnes a year and for this Iran is giving a long-term credit \$ 630 millions to develop the iron-ore operations at Kudrumekh which will be commissioned in late 1979. The Iranian credit will also be used on an ore slurry pipe line to

Mangalore. In July also India and Australia signed the constitution of the Association of Ore Producing Countries (see Vol V p 275) and when Tunisia signs, 7 States will have become members and the Association will meet to elect its secretary general who will be based with his staff in London.

Textiles, Sugar, Cement, Shipping and Drugs : The Union government announced in July an immediate 10 per cent reduction of cotton textiles varieties in cases where more than one variety is produced for every set of 100 looms, to be reduced further by another 15 per cent by 1977 and increasing the quantum to 1,200 sq. metres in place of the 800 million sq. metres and varieties of standard cloth to meet consumer preferences at cost price. Also on the one hand the five States including Tamil Nadu are consulting about measures to prevent the precipitous fall in cotton which is leading to diversion from cotton growing and the Union government on the other has announced a cash assistance of 10 per cent (plus the existing 5 per cent) to textile exporters to cover the gap between domestic and international cotton prices. A tripartite committee has been set up to resolve labour management problems in the industry. Now the distribution of standard cloth needs to be streamlined. Sugar release in July was increased to 3.10 lakh tonnes and ex-factory levy prices revised, being higher in 8 zones and lower in 8 others than the existing prices. The retail price at Rs. 2.15 per kg., however, remains unchanged. July also saw a steep decline in international sugar prices to £ 135 a tonne and the loss of the £ 50 premium enjoyed by Indian sugar. Against an exportable surplus of 15 lakh tonnes, only 4.5 lakh tonnes have been exported and a further 2.5 lakh tonnes committed at an average price of £ 306 per tonne. This delay in

exports and the loss suffered by the industry and the country should be investigated. Cement production at 13.25 lakh tonnes in June (78 per cent capacity use) was the highest in recent years. For January-June 1975 production was 7,669 thousand tonnes against a capacity of 20,552 thousand tonnes (75 per cent capacity use) which is good considering the new plants and the power cuts, wagon unavailability, labour trouble etc., which particularly plagued the 4 units in Tamil Nadu reducing their capacity use to the lowest in the country ranging from 19.5 to 50 per cent. The government is planning to subsidise the road transport costs of supplying cement to hill areas and backward and border areas to reduce their cost of cement with the help of the industry. This would be part of the system of national permits for trucks that is now being worked out. Also the Khadi Village Industries Commission is making known 2 substitutes for cement, lympo and hydro cement, both derived from lime mixed with other substances which are cheaper and more freely available. The Union government has decided to purchase ships both for the public and private sectors to increase the total ships beyond the current 304, and to take advantage of the recession in the shipping market where major ship yards are offering credit, low prices and expeditious delivery to attract shipping orders. The centralising of the purchases will economise on the costs of each individual unit and will allow for the best conditions to be obtained. On the freight rate problem referred to in the last issue (p. 399), the All India Shippers Council (AISC) in early July was considering boycotting the U.S. conference if the 12.3 per cent Suez surcharge is not withdrawn. The U.S. conference has sent a communication stating that the cost of transiting the canal is \$ 50,000 per voyage but this bland statement is not

supported by any evidence and documents. A meeting of the government, shipping lines and AISC will be meeting to decide on further measures, legislation, and the forming of a new conference if there is no response to the Indian proposal. Probably the first break occurred a week later when there were 2 successive reductions in the currency adjustment surcharge of the conference, making shipments to and from UK and Europe cheaper. Also as the Suez canal surcharge and the bunker oil surcharge are based on the reduced basic charge, there is a further reduction in the rate. In July also India signed along with 72 countries the U.N. convention on shipping lines conferences to prevent cut throat competition among liners and confusing national legislation. On the drugs front, the annual capacity of the synthetic drugs unit to the Indian Drugs and Pharmaceuticals (IDPL) is being increased to 3,386.5 tonnes of bulk drugs which will add 9 new drugs to its existing 29. The technology for seven of the new drugs was developed by Indian Scientists and its net profit rose to Rs. 4.09 crores last year. It is now contributing 35 per cent of the country's bulk drug production, which will be increased to 60 per cent by the end of the sixth plan. The government announced that following the Hathi Committee recommendation price control of 117 drugs is to be introduced, and a formulation unit is to be set up under IDPL management but at a different location.

Irrigation Ministers Conference : The two day conference of States Irrigation Ministers agreed to expedite the work on irrigation projects. Against the Fourth Plan target of 4.77 million hectares of additional irrigation, the achievement was 2.8 million hectares—due to increased project costs, proliferation of projects and

inadequacy of financial and managerial resources. So the conference decided to concentrate on spill-over projects postponing work on new projects. The Central Water Commission has identified 50 crore irrigation projects, for speedy execution in order to achieve the 5 million additional hectares target. The State ministers have committed themselves to these 50 projects which will bring 3.8 million hectares under irrigation. The increased cost is from Rs. 2,400 crores provided in the Fifth Plan to Rs. 3,750 crores. In addition to raising resources internally, funds are being raised internationally as from the World Bank for Kadana in Gujarat, Pochampad in Andhra and the Godavari barrage. Third on the inter-State water disputes not much headway was made apart from an appeal to the good will of the States concerned. Fourth the conference recommended a time bound project approach, a Rs. 30 crores project being completed within 5 years and these above that within 10 years. Fifth the need to reduce losses and economise on projects was stressed. At present irrigation losses amount to over Rs. 100 crores per annum and it was agreed that an organisation should be set up to investigate the project losses and reduce them. In this regard it was also agreed to associate the Central Water Commission right from the start of each major project. It was decided to set up standing inter-departmental water rates review board in each State to review and revise the rate structure for flow and lift irrigation and for a betterment levy. With the approval of the States, the Union government is setting up a National Flood Commission to deal with the annual Rs. 170 crores damage suffered in Bihar, UP, Bengal and Assam. The Commission will bring a multi disciplinary approach both to improve flood protection measures and to keep in view optimum utilisation of water resources, navigation aspects, soil conser-

vation and afforestation. At present there is little of rational water resources management in the country and for this the Water Resources Council at the national level and councils at the State level need to be set up as suggested in Vol. II No. 8 pp 9 and 10.

Fertiliser : The Union ministry announced that against a January-April production of 4,61,000 tonnes of nitrogen and 1,15,000 tonnes of phosphate, 86,000 tonnes of nitrogen and 44,000 tonnes of phosphate were in stock at May 1, 1975. To this should be added the retail stocks in some States like Gujarat, Andhra Pradesh, parts of Tamil Nadu which went through drought conditions. On July 17, the government revised fertiliser prices, increasing the price received by the domestic manufacturer from Rs. 1,310 per tonne for urea to Rs. 1,400 per tonne, ammonium sulphate from Rs. 685 to Rs. 725 per tonne, from Rs. 745 to Rs. 790 per tonne for calcium sulphate, while the retail price for the farmer was reduced from Rs. 2,000 to Rs. 1,850 per tonne urea, and similar decreases for ammonium sulphate and Phosphate, involving a State subsidy of Rs. 179 crores, (the Union budget provided Rs. 140 crores, see Vol V p 200). FCI followed this up by reducing by Rs. 150 its sulphala complex fertiliser price of Rs. 1,800 per tonne, widely used for sugar cane, cotton, paddy, orchard and plantation crops. parallelly the Government has renegotiated fertiliser import contracts with the Soviet Union, Canada, USA, Italy, Poland and Czechoslovakia in view of the fall in international fertiliser prices. The government subsidy is based on these revised figures which save Rs. 80 crores in foreign exchange. It is expected that the farmers will now be able to use fertilisers for the kharif and next rabi crops more freely and fully.

Agricultural Production: The Rabi harvest is estimated at 43 million tonnes but the procurement target of 5.5 million tonnes has not been reached mainly because: (a) the farmers' view of the low procurement price offered; (b) the State monopoly procurement particularly in Punjab and Haryana which did not allow them a free market sale compensation; (c) the early and heavy rains and the farmers' preoccupation with kharif sowings and (d) the extensive and profitable smuggling operations to States in short supply. The government has fixed a target of 45 million tonnes for the next rabi season and plans are being discussed with the States to finalise their input requirements and extend the area of cultivation. Kharif sowings began in July under good conditions with the heavy copious and timely South West monsoons in Assam, Bihar, Gujarat, Karnataka, MP, Maharashtra, Rajasthan and UP. In Punjab, Haryana, Himachal Pradesh and Tamil Nadu kharif paddy transplantation is under way. HYV, fertiliser and pesticides are being made available in adequate quantities to the farmers. 12.5 million hectares are being brought under HYV compared to last year's 11 million, of this 3.9 million hectares are rice, jowar will move up from 1.3 million hectares to 1.8 million hectares with extension of HYV and related technology, Bajra is being sown over 3.8 million hectares (3.4 million hectares last year) with stepping up in the use of HYV and fertilisers to increase its yield. In fact a special effort is underway to increase sensibly the output of coarse grains. The food grains target for this year is set at 114 million tonnes, detailed reviews of State Plans have been completed and with the improvement of the power situation and timely availability of inputs, including fertilisers at the lowered prices, there should be a good possibility of

attaining this year's kharif rice production target of 47 million tonnes and coarse grain target of 22 million tonnes. The Union government has introduced an integrated pest control programme to save a major part of the annual Rs. 1,500 crores lost in the rice crop, which is 19 per cent of the total output. Of this loss 25 per cent is due to weeds, 25 per cent to disease, 23 per cent to insects, 8 per cent to rats and 10 per cent to infestation in storage. And so 1,500 technicians and 30,000 sale points have been mobilised both to apply the integrated pest control programme and educate the farmers in its techniques. In addition 50 model villages are being used as models in the programme to push forward this massive effort. For popularising HYV of rice, the Union ministry has developed with the help of the States a mini kit programme under which farmers are being given a package of small quantity of the newly evolved seeds, along with fertilisers and pesticides and the information on improved techniques of cultivation. This would be a supplement to the seed distribution programme of the National Seeds Corporation. For each State and for different soil areas in each State, the use of the new technology is being developed with the technical advice from the Union experts. Full use in this context should be made of the various service agencies that have been set up such as the SFDA, MFAL, Co-operatives and Farmers' Service Societies. The RBI survey of SFDAs functioning shows that they have helped the small farmer to increase their incomes and their marketable surplus, that co-operatives have been effective in developing dairy development scheme among them, and sheep farming and minor irrigation works have been encouraged and developed. The 46 SFDAs serving 30 lakhs small farmers and the 41 MFALs

serving 13 lakh marginal farmers and landless labourers need more sale points for farm inputs and more area specific schemes planned by technicians and the farmers and improved infrastructural facilities. In this connection, the formal launching of the Farmers Service Societies recommended by the National Commission on Agriculture over 2 years ago, if used to serve SFDA and MFAL farmer and cultivator will meet serious gaps in the provision of credit, supplies of inputs and technical advice to small and marginal farmers.

Exports: July saw a continuation of efforts to step up exports. According to a GATT study, India did well in exports in 1974. World exports in 1974 increased by 48.8 per cent at \$ 773,700 million, due in the main to world inflation as seen in the price index rising by 39.3 per cent for 1974, while the quantum index of exports rose by only 5.3 per cent. India's exports for the year at \$ 3,896 million which was a 32.9 per cent growth showed a value index rise of 25 per cent and quantum index increase of 8.2 per cent. This is not as satisfactory as it seems, for between 1970-74 while India's unit value index rose from 100 to 170 (the world's was from 100 to 195), the quantum index increased only by 19 per cent from 100 to 119, compared to the world quantum index rise from 100 to 138 in that period. This confirms the analysis made earlier in Vol V pp 209, 275 and 343. In July, RBI raised upward the rupee sterling exchange rate, as the sterling continue to depreciate almost daily, and by the end of the month the rupee appreciated in the unofficial exchange market (at Rs. 8.50 instead of Rs. 10.50 against the dollar and Rs. 19 instead of Rs. 21 against the pound) as a result of (a) the government's severe and successful measures against smuggling and (b) the spurt in foreign re-

mittances into the country. Of the two forces, the former—the anti-smuggling drive was the major factor, as otherwise the foreign remittances which have to be through official channels, should have pushed up the value of dollars and pounds. But this hardening of the rupee means an additional effort to expand our exports to reach the quantum increase of 10 per cent for this year. For this purpose the commerce ministry has set up one cell for study of the export potentialities offered by GATT, UNCTAD, ESCAP, the measures of trade liberalisation of the industrialised countries and the opportunities in the developing countries, and a second cell to frame specific projects to cover the production export aspects of particular commodities. With regard to individual countries, Sudan suspended its trade with India in July, as between April to December 1974 India's exports to Sudan exceeded Rs. 40 crores due to limited imports from Sudan, India having become surplus in long staple cotton which was the major import from that country. STC exported for the first time Rs. 13.65 lakhs of rectified spirit from Tamil Nadu to Sri Lanka and is also to export 90,000 tonnes of molasses from this State. Its export earnings for April-June increased by 150 per cent to Rs. 160 crores. Exports to Australia in the 9 months ending December 1974 have increased by 44 per cent in both traditional and non-traditional items, ranging from Jute and carpets to foot wear and medicinal products. Also Hindustan Photo Films is exporting Rs. one crore of raw film to East Germany. EEC will be receiving 25,000 tonnes of sugar and the newly established Indo-Iranian shipping line is carrying 6 lakh tonnes cement, 3 lakh tonnes sugar, 50,000 tonnes rice and 1.30 lakh tonnes steel to Iran. On the commodity side, engineering exports which was Rs. 320

crores last year are targetted at Rs. 400 crores this year, which will still be not much above last year's 0.5 per cent of world engineering goods exports and 10 per cent of our Rs. 4,000 crores production. The Asian and particularly OPEC countries which receive less than one third of the exports offer a wide and expanding market, particularly Japan, Malaysia and West Asia. Cotton textile exports increased marginally in June from Rs. 13.75 crores, in May, to Rs. 13.93 crores, making the first six months of 1975 Rs. 96.17 crores compared to the January - June, 1974 exports of 165.56 crores. Piece goods exports have fallen off sharply. The target to double textile exports by the end of Fifth Plan calls for modernisation of textile mills reducing the high 28 per cent rejection rate of our textile exports, and meeting the specific needs of our foreign buyers, particularly of processed dress fabrics. Also contracts for exporting our 22 lakh bales surplus cotton are being explored by a delegation visiting Japan, Hongkong and Singapore and with the first two countries 8,000 bales delivery was made. Tobacco exports are increasing and an export target of Rs. 100 crores for this year has been fixed. During the first 3 months April-June 29.7 million kg. valued at Rs. 43.5 crores have been exported to Italy, U.K., USSR, Japan, France and West Europe. Cycle exports to the U.S. are a sophisticated new item which are fast expanding and spreading out to West European countries. Plastics exports are also a new comer earning around Rs. 10 crores last year. Chemical engineering exports which did well last year at Rs. 71.4 crores have been set a moderate target of Rs. 82 crores for this year due to fall in world prices; increased competition from developed countries and of course our own production constraints. In order to promote capital goods exports the government has liberalised its schemes of cover and coun-

ter guarantee for capital goods exports and construction works abroad.

Aid : The World Bank's aid to India to date has been \$ 5 billion, with a record lending of \$ 840 million last year. If the Bank's third window becomes operational this year (see last issue p 403), the total aid for the year may exceed \$ 2,000 million (Rs. 1,600 crores), as the World Bank group may raise its share from the promised \$ 700 million to around \$ 1,000 million. The pace at which bilateral agreements have been signed this year is faster than in previous years. Negotiations have been computed for 2 IDA credits of \$ 150 million for the Indian Railways (manufacture of locomotives, wagons, and coaches) and the UP water supply scheme. Canada has under negotiation a grant of \$ 48 million for the supply of 3,00,000 tonnes of grain. Canadian aid is restricted to food grains and fertilisers.

International

Bangla Desh : 1974-75 production in Bangla Desh recorded a significant increase in both agriculture and industry due to intensive use of land and maximum utilisation of its manpower. Tea output was 710 lakh pounds (607 lakh pounds previous year), sugar cane 17.82 crore maunds (17 crore maunds previous year), with slight decreases in jute and rice and increases in yarn, sugar, textiles, cement and salt production. For eleven months ending May, its jute exports were 7.54 lakh bales valued at 65.37 crores taka. With India, it concluded an agreement in July for takas 13 crores to purchase capital goods and agricultural and electrical equipment and machinery. As a result of bilateral discussions between the atomic energy experts of the 2 countries, a one MW research

reactor is to be established in Dacca and an exchange of scientists planned.

Pakistan: Discussions on India's Salal hydro electric power project in Kashmir were continued in July with Pakistan at New Delhi and Islamabad. A Pakistan expert group visited the Salal project site as part of these negotiations.

World Monetary Reform: July recorded three events in the world monetary situation. The pound sterling exchange rate continued to decline and reached on July 14 its lowest point at \$ 2.1275, which was a 27.2 per cent depreciation since the end of 1971. Second on July 10 the French franc re-entered the European snake, the joint EEC currency float scheme which it left in early 1974 (see Vol IV p 198). It re-entered the snake at the same parity as that of 18 months ago and its 8 per cent devaluation in the intervening period has been wiped out by the agreement not to use gold in settlement between snake central banks and the short-term support being available from 1 to 3 months. Now the European economic and monetary union project is likely to be revived. Third the World Bank President proposed in July that the capital subscription and voting power of OPEC countries be tripled from 5 to 15 per cent. This would raise OPEC subscription to the Bank from \$ 1.3 billion to \$ 6.3 billion and increase the membership of the World Bank's Executive Board from 20 and 21, to provide for a permanent seat to OPEC countries. The developed countries are opposed to this proposal as their power will be diluted but this just and sensible change will come about. IMF's oil facility of 5 billion SDRs for 1975 has stricter rules about the borrower's balance of payment problem but also an interest subsidy

account for MSA to soften the 7½ interest rate.

OPEC: Plans are under way to resume the dialogue between the developed, OPEC and oil consuming and developing countries on the problems of inflation, oil and all raw materials and import goods and prices which was interrupted at the abortive Paris conference last April (see Vol V p 278). This was made possible by the change in the U. S. position, reflected in the decision of the International Energy Agency's decision to discuss with OPEC and other developing countries the question of all prices and not only that of oil. In July, Ecuador became the first country officially to cut its oil price by 43 cents. OECD estimates that the current OPEC surplus of \$ 67 billion in 1974 will fall to \$ 25 billion (in 1974 dollars) in 1980 and will cease by 1985, and the current account of industrialised nations will resume its surplus position by then. It computes that the cumulative OPEC surplus from 1974-1980 will be \$ 200 - 250 billion and then decline.

World Aid and Trade: OECD in July announced that the 1974 official development assistance (ODA) was \$ 11.3 billion which was a 21 per cent rise in dollar value over 1973's \$ 9.4 billion. But with an inflation rate of over 20 per cent, there was no real increase. The total resource flow from the 17 DAC countries to developing countries amounted in 1974 to \$ 26.7 billion, a 10 per cent increase over \$ 24.3 billion in 1973. This means that in 1974 ODA amounted to 0.33 per cent of the combined GNP of the DAC countries (up from 0.30 per cent in 1973) and the total flow 0.78 per cent of the GNP (the same as 1973). Only Sweden met the 0.7 per cent ODA target, lending conditions generally were hardened and

the U.S. was the 13th in the 17 countries ranking in providing 0.25 per cent of its GNP as ODA. In over all terms the grant element in ODA fell from 64.8 per cent in 1973 to 60.2 per cent in 1974. The Colombo Plan in its report published in July records an aid programme of \$ 41 billion between 1951 to 1973 from and between its members. As far as US, UK, France, Japan, Australia, New Zealand and Netherlands are concerned their Colombo Plan aid already figures in the OECD statistics. US with \$ 32 billion was the largest contribution. Also in July the treaty between EEC and 46 developing countries of Africa, Caribbean and Pacific known as the Lome, Convention was signed giving \$ 130 million worth of duty free access of these countries' products to EEC markets and providing financial aid to stabilise their export earnings. In July, GATT set up a consultative group to act as a watch dog on world trade trends, upsets in the multi lateral trading systems and the needs of the developing countries. The group consists of nine developing countries, 7 industrialised countries and one socialist and one mediterranean country. In July a committee of experts of the non-aligned countries draw up a model statute to control foreign investments, multinational corporations and technology transfers, which is submitted for the approval of the foreign ministers conference meeting in Lima in August. As part of the New International Economic Order, it establishes the right of States to regulate and control the activities of multi-national corporations, states that any reprisals against a country in this matter will be regarded as action against all members of the group, reserves the strategic section of the economy for nationals only and lays down standards of conduct for multinationals including the percentage of projects that they will be allowed to remit abroad.

New International Economic Order :
The international consideration of the New International Economic Order moved forward in July with the acceptance of the need for it by the U.S. Secretary of State, whose government till now has been opposed to both the concept and contents as formulated by the special session of the United Nations General Assembly (see Vol IV pp 361-362). Also the joint statement of the President of Venezuela and the Prime Minister of Sweden in July called for a new international economic order to remove unjust differences between rich and poor nations. Apart from the significance of one of the richest nations taking this stand, it calls attention to the need for such short-term measures as building of buffer stocks and development of raw materials which the World Bank is willing to finance and the IMFs to use its loan authority for, so that raw materials producers can borrow when their income declines. There are also the long-term problems connected with establishing a fair international monetary system and countering the stacked terms of trade against the developing countries. The unity and self reliance of these countries is a major feature of the new order. Also in July, the 19 nation development assistance committee (DAC) of OECD—the lenders club—spent 2 days discussing the New International Economic Order and agreed to support the principle involved. Some like West Germany wish to see it introduced gradually and spread over a period of 2 decades. But all the 17 countries including the US agreed that the new order representing a new and changed economic relationship between the developed and developing countries was inevitable and that they should enter into a constructive dialogue on its contents, programme and means of action with the developing countries at the 7th special session of the UN General

Assembly in September. One proposal on which no decision was taken was whether the increase in aid should go to countries with less than \$ 200 per capita income.

World Food: The Soviet Union is importing 20 million metric tonnes of food grain from the United States and Canada because of its grain output of 185 million tonnes—the smallest since 1972. In July, Canada sold 3 million tonnes of wheat to the Soviet Union and the United States 10 million tonnes, amidst some opposition from its long shore men's association who were afraid that such sales may send the price of bread up in the U.S.

International Convention on Oil Pollution: The Inter-governmental Maritime Consultative Organisation (IMCO) established in 1970 two international conventions on civil liability for oil pollution. 8 ratifications including those of five States having atleast 1 million GRT tanker tonnage was necessary to bring the first convention into operation. As at 18 June, 14 States had become parties to the convention under which compensation is paid to those who suffer oil pollution damage from oil carrying ships. The owner of the ship is made responsible for the damage up to \$ 125 for each ton of the ships gross tonnage up to a maximum of \$ 14 million for each incident. Ships carrying oil are required to be insured and the compensation claimed should be within 3 years of the damage. The second convention relating to intervention on the high seas in the case of oil pollution casualties required 15 acceptances and by May 9 there were 20 acceptances. This convention deals with the right of a coastal State to intervene and take measures to protect its coastal and other related

interests where a casualty occurs on the high seas and also provides for settlement of disputes by negotiation, conciliation and arbitration. As a result of these two conventions oil pollution of the seas should be considerably reduced.

EEC's Research on new sources of energy: EEC's ministers of Foreign Affairs decided to launch a research programme on solar energy, and hydrogen energy—new sources—and for this allocated a sum of \$70 million until 1979. It also increased the funds for its overall energy research programme from \$219 million to \$271 million to meet the problems presented by the oil crisis. The research work is centred in Italy, Netherlands and West Germany. With even large sums being spent by the U.S. on energy and new sources, there will soon be several break throughs in the energy availability in the world.

International women's year: The U.N. conference on women in Mexico ended on July 4 (see last issue p. 407) with several important decisions by the conference. It adopted a 10 year plan of action which linked the future to women's rights throughout the world with the struggle for liberty and against all forms of political oppression. It calls for text books to be revised to reflect women in positive, participatory roles in society, for career guidance programmes to help girls and boys choose work according to their aptitudes and not because of deeply ingrained sex stereotypes, and for a change towards women whatever be their marital status. It asked for a change in Mass Media role which portrays an image of women that is degrading and humiliating. Getting society to change its damaging stereotypes about women is a key role of this 10 year plan—which involves changes in public attitudes and values regarding

women's roles in society. The 1,300 official delegates to the conference and the 4,000 unofficial members who attended a parallel tribune decided to meet again in 1980 to evaluate the actions which have been taken to implement the plan. The UN and its agencies were called upon to change their programme which hurt rather than help women, to analyse development projects to see how they affect women

and recruit women to the programmes, to increase research and study grants for women, to improve their training and the promotion of women in professional jobs in the UN and for women delegates to be increased at UN Assemblies and conferences. The women's charter which emerged at Mexico is a plan on which all countries should act as part of their commitment to development.

II Agricultural Development

Paddy :

Intensive efforts are underway to achieve a production target of 60 lakh tonnes of rice for this year against a normal 56 lakh tonnes, and all signs are favourable for its attainment. Thanjavur's contribution will be 15 lakh tonnes. 12-13 acres will be harvested as kuruvai in September, followed by the remaining of the 66 lakh acres which will be under samba and thaladi. The area is being increased by cultivating poramboke lands under the Food Corporation's scheme. In Thanjavur 4.81 acres are under kuruvai paddy, 7 lakhs acres under samba and 3.50 lakh acres under thaladi. By the end of June, 10,000 acres under kuruvai paddy were transplanted using filter water supply. Before the rains and the Mettur water availability, this community filter point scheme was used to raise seedlings and in the case of progressive farmers to sell them to other farmers. With Mettur reservoirs storage being comfortable, the

kuruvai and early samba will have the water they need. There is a problem with the HYV, ADT-31, whose higher yield of 100-200 kg. per acre above traditional varieties has made it so popular that cultivators over 2 lakh acres are demanding it, whereas the Department has only 300 tonnes of seed to cover 10,000 to 15,000 acres. Faced with the shortage, the Department has arranged with the Panchayat Unions to sell the seeds on a "no profit—no loss" basis. With these supplies, the area under ADT-31 will go upto 30,000 acres and the other farms will have to be content with karuna and other medium varieties. In the Coimbatore district 22,000 acres were under paddy, most under HYV, using 30 kg. N per acre. Weedicides are in short supply, covering only 6,000 acres but the kar crop looks like being a good one in the area. The government has announced that it plans to procure the entire marketable surplus from the kuruvai and kar crop and the farmers are naturally anxious about the procure-

ment machinery. In Thanjavur district, the kuruvai crop is being raised in 1,200 villages out of 2,000. The State Civil Supplies Corporation has set up 600 purchase centres, at the rate of one for every 2 villages and FCI has 100 purchase centres and 12 mobile centres to purchase from inaccessible villages. The co-operatives also will undertake procurement and for this the farmers want them to be strengthened at the village and taluk levels and have adequate funds to purchase promptly the paddy offered. Against a production of 5-6 lakh tonnes, it is planned to purchase 2.50 to 3 lakh tonnes provided (a) there is no increased local consumption of these improved varieties and (b) the stocks for future by the cultivator are not increased sensibly. Above all the price factor is a big question mark. With increased bullock, labour and input costs, the farmer wants a price higher than the Rs. 54 for 57 kgs. and this will have to be decided at the Union level. It looks as if the farmers' fears about marketing delays of paddy with its heavy moisture content which makes it subject to germination and deterioration will be avoided this year, if the plans are executed carefully and promptly. The government would also like to see producers co-operatives and millers co-operatives formed to replace the middleman but this is a long term prospect which will not help the current kuruvai operations.

Other food grains and crops :

The millets target for this year is to be raised from 15 to 17 lakh tonnes. In the Coimbatore district 3.7 lakh acres are being sown with hybrid millets, CSH 5 cholam, Koilpatti tall cholam, NHB cumbu, Ganga 5 maize, Decta maize and ragi, the Department supplying about 50 per cent of the seeds. The CSH 5 cholam raised as a summer crop was struck by the

drought, but the farmers who have seen the demonstration plots yield 3 tonnes per acre have readily taken to this variety, including ratooning it which yields 2 tonnes per acre. The extension staff is at work co-ordinating the programme, which has been divided into areas each under a deputy agricultural officer who is in charge of 2 adoptive research trials and 2 multi crop management demonstrations. To improve the groundnut yield this year, 50,000 acres of mass spraying is being organised along with pest surveillance which will help farmers with forecasting of pests and diseases. Only the June end report from North Arcot about the decline in sugar cane acreage due to the failure of seasonal rains was disturbing. In that district against the normal area of 20,000 - 23,000 acres under sugar cane cultivation, only 12,000 acres were so registered by June end, with the crop withering in the Odugathur, Vellore and Katpadi areas. For the State as a whole, however, with good rains from the South West Monsoon all reservoirs were opened from early July, as noted in the last issue p 408, irrigating 25 lakh acres. When it was not raining, Mettur released 25,000 cusecs a day during July so that the tail-end areas were also being served. The water level in Mettur was 24 metres against a capacity of 34 metres which was satisfactory. The government also regulated in July the unauthorised tapping of waters from the Cauvery channels in the Salem district which had been going on for ten years, Enterprising farmers, individually or in groups, tapped water from these channels from Jedarpalayam (Salem) to the upper Anicut in Tiruchy and with the help of energised pump sets to carry the water to heights upto 30 metres above the Cauvery level, had developed over 10,000 acres to grow paddy, sugar cane, bananas and betel leaves. The government order in July authorised the district collector to

organise the pumping schemes functioning on September 1, 1974 into 41 lift co-operative societies, covering 92 pumping stations and 1,271 farmers irrigating 9,332 acres so that there will be regulation and supply of water under control. There is the residual problem of the new pumps installed since September 1974 which should also be so regulated.

Paddy Processing :

The Tiruvārūr paddy processing and research centre has devised an improved method of paddy processing which can save 10 per cent of the rice. Earlier it had popularised chemical spraying on the ears of mature paddy to speed up their ripening by 10-12 days, which both avoids the monsoon and rests a soil before the next crop. Now by applying salt solution in drying paddy, the excess water is withdrawn without entering the rice kernel and there is no spoilage. A third process which extracts oil from the bran has also been improved by the centre, which taking advantage of the movement of the oil towards periphery of the grain increasing it by 30-40 per cent, the millers are now able to produce bran with an oil content of 22 to 23 per cent instead of previous 4 to 6 per cent, sending up its value from Rs. 100 per tonne to Rs. 1,000 per tonne.

Research Results :

Research results in the rice field include the release of two new high yielding monsoon varieties IR-34 and IR-32 by the International Rice Research Institute, Manila. IR-34 is a tall plant and stands above the large amounts of rain water in the monsoon seas. IR-32 matures in 140 to 145 days and so lasts out the monsoon. Both yield 5.6 to 5.9 tonnes per hectare and are pest resistant. Within the State, RP 4-14, which is doing well in Andhra,

has mixed results at the Aduthurai station in Thaladi, the Ambasamaduram station in Pishanam and at the Palur stations in Samba, with a duration of 110 to 130 days and with the same or even a little lower yield as IR-20 or IR-26. Further trials are underway in the State to identify its precise yield and the reasons for a lower one if that is confirmed. In cholam, the Tamil Nadu Agricultural University released in July two new hybrids Co. H1 and Co. H2. Co. H1 yields 6 tonnes of grain and 15 tonnes of straw per acre, matures in 105-110 days and is pest resistant. Co. H2 yields 6 tonnes of grain and 20 tonnes of straw and can be grown in both rainfed and irrigated areas. Other cholam varieties that have been developed are the 100 day CSV-3 which is drought resistant and can be grown in the State starting with the monsoon, a kharif variety CSV-4 with good fodder quality and suited to the humid areas of the State, CSV-6 also suited to the State, of 115 day duration and drought resistant and CSV-7 which is long duration (120-125 days) and suitable for early or late sowings. All these have to compete with the successful, popular hybrid cholam CSH-5 referred to in the previous section. The Bangalore Biljapur Research Station has developed a Rs. 2,500 sugar cane planting machine which with a small 30-35 HP tractor, plants 2 rows at a time, opens out furrows, applies fertilisers, plants the sets, covers the sets with soil. It plants 1.5 hectares per day and costs Rs. 80 per hectare. For some of the large cane fields this could be cost saving at the labour short planting season.

Cotton :

Cotton production and supply is at an all time high. The 1974-75 output of the 3 Southern States, Tamil Nadu, Karnataka and Kerala is 12.50 lakh bales, with all

India production standing at 72 lakh bales (against a forecast of 62 lakh bales). Along with 19.74 lakh bales of opening stock and imports of 2.40 lakh bales including 2 lakh bales from Pakistan, the total supply position is 94.14 lakh bales, while due to the power cut in the major textile centres, the offtake has been 65 lakh bales. Two results followed. Prices have fallen by 50-60 per cent from the very high levels of the 2 previous years when the textile mills were making large profits and increased their cotton offtake and sent up prices. The Cotton Corporation of India with a capital of Rs. 10 crores against the cotton output of Rs. 1,000 crores can do little to hold prices. The second effect is the urgent need to export cotton where the competition from Sudan and Egypt must be faced as they have well entrenched markets and the price factor of Indian cotton is decisive. The small exports to Japan and Hongkong were noted earlier and now a policy of India becoming a long-term cotton exporter needs to be fashioned and pursued.

Cocoa :

A new crop cocoa is being cultivated in Kanyakumari, Tirunelveli, Madurai and the Nilgiris and in Kerala and Karnataka over 4,500 acres. Last year 100 tonnes were harvested and the second crop is being harvested in July. The plant is grown under coconut and areca trees, germinated in pots and planted when one foot high. The yield is 300 kg. per acre which means an income of Rs. 1,350 per acre. The government has fixed a guaranteed price of Rs. 4,500 per tonne. India consumes 1,000 tonnes of cocoa a year and with the strong export demand for this scarce commodity, there is a good scope for further expanding the crop.

Coconut and Honey :

A plan to raise coconut plantations in 10,000 hectares in Chingleput, South Arcot, Thanjavur, Tiruchirappalli, Ramana-thapuram and Kanyakumari districts has been established by the Department of Agriculture. This plan will help the further development of cocoa growing. It is being discussed with the World Bank with a view to obtaining a loan for its execution. The State is the largest producer of honey (8,54, 399 kg.) and with Kerala and Karnataka accounts for 71 per cent of honey produced in the Country in 1973-74). The average yield per bee colony has risen to 4.7 kg. from 4.55 kg. in the previous years. It is a cottage industry which benefits the small and marginal farmer, family and tribal peoples. The price of honey has risen by a rupee to Rs. 7 per kg. and by 2 Rs. to Rs. 12 per kg. for bee wax. This is an ancillary income for the farmer and landless labourer which can be further developed.

Dairy Farming :

Following successful experiments at the Rhuri Agricultural University, the possibility of increasing the calving of hybrid cows and their milk yield in the State should be tried. Two calves a year and an average of 7.5 litres of milk which the cross bred cows produce can make a difference to the dairy industry. The Tamil Nadu Dairy Development Corporation in July stored retailing milk in polythene bags (see Vol V p 216). With the handing over of the Ambattur dairy by the National Dairy Corporation to the State Corporation in August, milk distribution in the city is to be completely mechanised through slot machines in 10 milk cooling centres which will gradually be spread throughout the city. The Ambattur project will supplement the city's milk supply by 2 lakh litres.

Fish Farming:

The Tamil Nadu Fisheries Development Corporation has 4 nationalised banks—Canara, Bank of India, UCO, Central—financing its scheme of distributing 200 mechanised boats to fishermen on a hire purchase basis. 3 or 4 fishermen will own a Rs. 1 lakh boat, on which a 5 per cent margin has to be deposited with the bank by them. The interest is 11 per cent and repayment is through 60 monthly instalments except for the 3 annual non-fishing months. Canara Bank has advanced Rs. 50.78 lakhs for 47 mechanised boats. The State government is subsidising the interest fully for this year, upto two thirds for the boats delivered during 1976-1977 and one third of the total interest for 1977-78. After that year, the fishermen must pay the interest in full. The fishermen are confident about their repayment ability out of their large catches.

Tea :

The State government has set up a Rs. 2.75 crores Tea Plantation Development Corporation to develop tea plantations in 1,500 hectares (3,750 acres in Cheramboddy, Cherangode, Nelliyalam, Coonoor and Kotagiri for the 7,500 Sri Lanka repatriates. The project costing Rs. 6.5 crores will be financed by ARC (Rs. 5 crores) and the Union (Rs. 1.5 crores) and will be export oriented. The Tea Board is acting on its task force report recommending aid to small planters in Tamil Nadu and Kerala, where they are concentrated, through a decentralised small growers cell in its development directorate which will: (a) intensify the availability of plantation finance, replantation subsidy, machinery hire purchase as well as plant protection and provision of clones and inputs, (b) liberalise replantation, replacement, planting and rejuvenation subsidy schemes, and (c) foster co-operatives. In addition to the

existing eight co-operatives and the one coming up at Mellur, the Tea Board and the State government are developing a 10th factory at Kattabetty and raising the credit limit to each factory from Rs. 6 lakhs to Rs. 8 lakhs due to cost escalation. Expert studies indicate that on the basis of one co-operative factory for 1,000 acres, Nilgiris should have 25 factories. To start with, the government's original plan of 6 additional factories instead of the present one factory should be revived and executed. Also the Union government's decision to extend the concession of the excise duty and increase it from 70 paise to 80 paise per kg. for weak tea factories, and the use of the criterion for identifying weak gardens on the basis of the price realised for 3 years ending March 1975 instead of March 1970 will also help the small growers. The tea export target for 1975-76 has been fixed at Rs. 240 crores (against the 1974-75 realisation of Rs. 214 crores), which means a production target of 496 million kg. against last year's 490 kg. Before the monsoons, the prospects of even maintaining last year's level was uncertain because of the drought and blight in the north east gardens, and the South Indian tea after initial spurt of a 5 million kg. increase for the first 4 months registered only a one million kg. increase in the first 5 months. But as of July with good rains in Assam, Darjeeling and Coonoor and with the normal pick up of North India after April, the year's target may be attained. UPASI announced in July an increase of 11 million kg. in Sri Lanka production to 101.7 millions kg. in January - May, and a fall of 1.7 million kg. at 39 million kg. of African tea. At that date India's production had declined by 5.5 million kg. to 60 million kg. Tea prices weakened in early months but will recover in June and July in London, Calcutta and Cochin. To attain this year's export target, the market

should be diversified to a greater extent to include Japan and West Asia.

Coffee :

Further to the progress report on the 1974-75 coffee production and export in the last issue (p. 412), the output for that year totalled 90,712 tonnes and export 52,688 tonnes earning Rs. 59 crores. For 1975-76 the production is likely to be one lakh tonnes and the export target 57,000 tonnes earning Rs. 60 crores. Frost in Brazil has sharply reduced the world coffee supply, as it produced 30 per cent of the total world coffee and in July, Robusta price shot up from £ 30.5 to £ 52.25 per tonne. Sixty two countries which produce or import

coffee met in July in the International Coffee Council in London and established the outlines of an agreement which is to be finalised at a 3 week session beginning October 27. Under the agreement a system of variable quotas for exporting countries, in the first year, 80 per cent being fixed according to the new basic quota and 20 per cent varied according to the stocks the country holds. In the second year the percentage will be 70-30. India has secured agreement that the new quotas should be based on the actual export performance of the 3 years. This means that the Indian quota will rise from the old and unfair 22,000 tonnes to 55,000-60,000 tonnes with there being no non-quota countries which is far enough.

III Industrial Development

Neyveli :

With the Rs. 10 crores for the Neyveli lignite expansion from 3.5 million tonnes to 6.5 million tonnes provided in the supplementary demand, this year's Neyveli resources become Rs. 25.10 crores - the annual budget providing Rs. 5 crores as equity, Rs. 7 crores as Plan scheme loan and Rs. 3.10 crores to meet its resources short fall. The Chairman of Neyveli returned in July from Germany after finalising the import of machinery from KFW and the other West German firms. The current year's requirement for the import of machinery is Rs. 10 crores which the Union government

is advancing and will reimburse itself from West German credit of Rs. 40 crores earmarked for Neyveli expansion.

Kalpakkam :

BHEL's 175 tonne starter for Kalpakkam's 264 MVA turbo generator was delivered in early July to the plant. Special arrangements both by railway and road had to be made to move this heavy piece of equipment which cost Rs. 1.5 crores, its transport alone costing Rs. 2.70 lakhs. Kalpakkam is now keeping to its revised schedule and should become critical in 1977.

BHEL :

Further BHEL, Tiruchy, has completed work on the heavy water headers for the four boilers of Kalpakkam's second unit and headers for 4 more boilers are under fabrication. This involves a new technology to meet the rather stringent specifications of DAE. Also against international tenders, BHEL was awarded the orders for 3 boilers a steam generation unit on a turn key basis, the former for the Sindri modernization project of the Fertiliser Corporation and the latter for the Trombay fourth expansion project. These two orders conform to the World Bank stipulations valued at 14.50 crores including a large quantum of foreign exchange. For 1974-75, BHEL, Tiruchy's orders amounted to a total of Rs. 46.75 crores. Also DAE has placed with it an order for the design, manufacture, inspection, and delivery of three heavy water turbines to process water heat exchangers for its 100 MW Thermal Research Reactor Project at BARC. In taking responsibility for the entire design and engineering of these sophisticated pieces of equipment, BHEL is further developing a unique position in the country.

Tuticorin Heavy Water :

By the middle of 1976, DAE's second 71.3 tonnes a year heavy water project at Tuticorin will be commissioned. Its 375 tonne exchange tower (2.45 metres in diameter and 47 metres in length) manufactured in France had to be specially moved from the German ship which transported it to the plant site, as the new harbour is not yet ready to handle this type of cargo. This Rs. 33 crores plant is linked to the ammonia plant of SPIC which provides the synthesis gas as the source of heavy hydrogen and the synthesis gas minus deuterium is sent back to SPIC. In exchange for the small

quantities of heavy hydrogen removed from the ammonia, DAE will pay Rs. 12 per kilo of heavy water produced. Heavy water or deuterium oxide is used in all our Candau type nuclear reactors.

SPIC :

SPIC's urea plant commissioned in June (see last issue p. 413) reached a capacity use of 70 per cent in July and will be 80 per cent in August. This means against a small 5,000 tonnes production for the year ending June 1975, it will be producing 3.67 lakh tonnes in 1975-76 against an installed capacity, whose sales will bring in Rs. 68 crores. With the sale of sulphuric acid, ammonia, DAP and NPK, its sales turnover is running at the rate of Rs. 100 crores for the year. It is one of the well managed and operated plants with already an international record in its performance.

Golden Rock :

The Southern Railway's Golden Rock workshops have designed and produced a fuel pump calibrating test stand for our diesel locomotives and two other pieces of equipment for testing components and load in diesel locosheds. All these 3 types of equipment have been imported till now and their fabrication will save considerable foreign exchange. Even more the calibration of fuel pumps in our diesel locomotives and the testing machine to detect cracks in components are part of the safety and efficiency objectives of our diesel operated railways. The Golden Rock contribution of this appropriate technology is a valuable one.

TIDCO and SIDCO :

TIDCO is setting up a Rs. 1 crore factory near Madras with Nallaperumal Associates and U. S. collaboration to

manufacture 25,000 acetylene cylinders a year. Excepting asbestos fibre, all the raw materials are available locally, ancillaries and components will be fabricated by Madras based small units and the plant should go on stream early in 1977. The present demand is for 10,000 acetylene cylinders a year and in time the 20,000 improvised acetylene generators without safety devices used by small units should be replaced by the product from their plant. SIDCO has offered to collaborate with promising entrepreneurs in the State, providing upto 90 per cent of the finance if the units are located in rural areas. For this, industrial blue prints for each district are being scrutinised by the R and D committee for SIDCO to move new industries into the undeveloped rural region and provide rural manpower with employment. In addition to the single Mettur pesticide plant, two additional plants are being put up at Mettur for the manufacture of lindane. For this the State government should allocate specified quantities of alcohol at definite intervals of time. SIDCO's developed plots industrial estate at Mettur will provide the location for the plants — one manufacturing 2-4-D pesticide from lindane and the other Malathion. A formulation plant to meet the agricultural needs of Salem and neighbouring districts can also be developed in the Estate. A modern reed switch production facility at a cost of Rs. 1.25 crores has been set up at the Madras electronic campus by the State government. It has a capacity of 3 million units and will start production by the end of the year. The switches will be used in telephone exchanges, computers, calculators and control instruments. A useful project is the setting up of coal dumps in consumer co-operative areas like Korukkupet railway that SIDCO and CMA were working on and later transferred to the Industries

Department. This will be of immense benefit to small producers whose monthly offtake is 600 wagons and who often face no supply because of wagons diversion and restrictions. CMA and the department of industries however could not agree on the procedure of drawing the coal and its finance. The scheme is important and useful and bureaucratic obstacles should not stop its execution.

Sugar :

The change in levy sugar price is agitating some of the Southern sugar mills, but the Union government's decision is a considered one and is short of the demand by this State and others for the nationalisation of sugar mills. This State's sugar cane production has decreased due to the drought and the profitability of paddy cultivation has led farmers to switch over from cane to paddy. As a consequence there is a shortage of molasses, the distilleries demand for which is 1.5 lakh tonnes. With lower crushing in the next sugar year, the supplying may not exceed one lakh tonnes. The State may therefore permit the import of alcohol from Maharashtra and other States to meet the deficit faced by the seven distilleries. This would be cheaper than importing molasses which cost Rs. 10 per tonne but whose transport costs Rs. 100 per tonne.

Textiles :

The piling up of stocks in the Southern mills referred to in the last issue p 414 continues. They have a stock of 75,000 bales (180 kg. each) of yarn representing 3 weeks production. However 3 major mills have secured firm export orders for grey and finished textiles totalling 14 million metres and further orders for 12 million metres are under negotiation. This is one way out of the present over stocked position of the industry.

Handloom and Khadi :

The glut conditions obtain in all facets of the cloth industry. Of the Rs. 45 crores handloom stocks in the Southern States referred in the last issue p 414, the Tamil Nadu handloom stocks in the private and co-operative sector amounted to Rs. 25 crores at the end of July. Khadi stock accumulation in the State amounted to Rs. 5 crores. In the case of khadi, the accumulation was due to the 2 lakh persons taking to khadi spinning as a full time instead of a part time job, to the decreased purchasing power in the hands of the people as a result of inflation, and the rise in khadi prices. The Union government's Rs. 1.5 crore loan has relieved the situation to some extent and there is pressure on the government to meet the cost of a 10 per cent rebate on khadi sales and on the Union government to turn the loan into a grant. What is needed is a revival of demand for khadi and some abatement in its price which the switch over to long staple cotton production in the State is not helping, as short staple cotton for the khadi charkā has to be imported all the way from Punjab. As for the Handloom crisis, apart from the Union loan of Rs. 4 crores to the Southern States, Tamil Nadu's share being Rs. 1.8 crores, no action has been taken as yet. A new plan for handloom weavers is part of the 20 point programme but the Union Minister who visited the State at the end of July did not indicate any short-term or long-term lines of action to relieve the weavers apart from (a) a plan of restructuring the export cash subsidy pattern which would be announced soon, (b) an appeal to handloom weavers to join the co-operatives so that 60 per cent of them and not 30 per cent could belong to it and (c) a promise to examine how the court interdiction of reserving dhoties, towels and saris for the handloom sector can be met. The second Annual State Conference of

handloom weavers at the end of July in Madras urged (a) The Union to entrust the production of standard cloth to the handloom sector, (b) the State and Union government to procure the stocks and sell them through the co-optex, (c) the statutory reservation of sarees, dhoties, towels, bedsheets, lungies, (d) the grant of rights and safeguards under the Labour Dispute and Wages Acts, subsidised housing, free medical care and easy availability of their raw materials.

Leather :

The leather industry, particularly members of the Leather Export Promotion Council are concerned with the fall in the export of semi finished leather and want the quota curbs to be held in abeyance in the interest of export promotion. El tanned hides and skins fell by 21 per cent quantitywise and 31 per cent valuewise during April and May. The government has urged on EEC the need to pursue a liberal policy towards import of Indian leather and has offered to collaboration programmes to meet the European requirements of foot-wear manufactures. If EEC opens up its market, it will lead to finalising collaboration agreements worth \$ 10 million to \$ 15 million, the most promising item being shoe uppers. CLRI in Madras is developing its services for the infrastructure for the leather industry to produce finished leathers. It is working on the sophisticated machinery and the dyes, chemicals and other materials needed for this purpose and which have so far been imported. One of its ongoing schemes is to convert slaughter house bye products into utility goods and another is to set up a training centre for manufacture of leather goods. There will be a drop in our leather exports again this year but the year must be used to develop speedily

the infrastructure for the industry to turn out finished leather products.

Matches and Printing:

The matches industry in Gudiyatham is in trouble. 300 units have been closed for want of potassium chloride and 30,000 workers laid off. This raw material can be supplied by the local depot. The 225 printing presses in Sivakasi which are famous for their pictures, posters, calendars etc. need modern machinery and are held up in this modernisation programme because the area is not recognised as a backward area and not granted the import licenses the industry needs. This log-jam also should be resolved the Union Commerce Ministry.

IOB:

The Annual report for 1974 of the Indian Overseas Bank shows a 19 per cent increase in deposits (Rs. 40 crores) at a little less than Rs. 250 crores, and advances increase by 19 per cent (Rs. 26.3 crores). There were 2.1 lakh new deposit accounts which indicate increased saving by the low income groups. Advances to priority sectors increased in terms of account by 16,400 reaching one lakh, by loans by 21 per cent (Rs. 5-8 crores); including an increase of Rs. 2.2 crore to agriculture, including setting up an Agro service centre at Kurichi, financing Dairy Corporations and Co-operatives and adopting 60 villages, Rs. 2.8 crores to small scale industries, and Rs. 25 lakhs to self-employment schemes particularly retail traders, transport operators and technical graduates. 23 per cent of the branches will be located in the 6 districts for which it is the lead bank. For Ramanathapuram district, the bank helped in preparing a development project report under DPDA. Its use of performance budgeting

and a wide ranging and effective training programme for its personnel has helped the bank to perform effectively and serve the State needs well.

Private sector reports:

Tube Investments' annual report for year ending March 31, 1975 shows substantial improvement in sales by Rs. 21.84 crores and profits by Rs. 1.2 crores. Its export record has been referred to earlier and its further expansion is being planned. India Cements for the year ending March 1975 shows a profit of Rs. 35.49 lakhs against the previous year's loss of Rs. 150.37. Cement production was over 20 lakh tonnes and the loss of production over the 3 weeks 100 per cent power cut was 2.10 lakh tonnes. It exported 73,417 tonnes of cement to Bangla Desh and Iran. The annual report of Shaw Wallace for the year ended June 1975 shows good sales of fertilisers, some decline in shipping, the Madras glue factory hard hit by the drought—despite all of which the turnover was 31 per cent above the previous year. The annual report of the Southern Nitro-chemical for the year ending March 1975 was a report of its first year of working. It started production only in February and was already working to 65 per cent capacity. The annual report of the Star Engineering Works for the year ending January 4, 1975 records also an increase in turnover at Rs. 2 crores for the first 6 months, further development of its R and D unit which is providing technical collaboration for six major items of machinery to a major industrial company in East India and export of textile machinery to Japan. The annual report of Lakshmi Machine Works for the year ending December 1974 shows an increased sales turnover of Rs. 11.8 crores compared to Rs. 700 lakhs in 1973 and a net profit of Rs. 88 lakhs, textile machinery export of Rs. 1.62 crores, a joint venture in Malaysia and one under

negotiation in Sudan and plans for doubling production capacity in 3 types of machines and launching a subsidiary to produce automatic looms. Its R and D unit designed and helped to fabricate five machines as improvements on existing imported designs. The Annual report of Dunlop India for the year ending December 1974 shows a 43 per cent increase in sales

to Rs. 147.04 crores, a 67 per cent increase in exports of Rs. 5.30 crores to 92 countries, including new OPEC markets, and a good 8 months work at the Ambattur factory when full power was available. R and D still depends on its overseas units at UK and Italy, with adaptive work being done in its local unit.

IV Education, Science and Health

Educational situation and reforms:

Since the monthly periodic report starting from October 1972 on unrest in educational institutions (see Vol II No. 12 p 31), this issue reporting on July 1975 is the first one when the whole month passed without a single incident being reported in the press about unrest in the educational institutions of the State and the Country. This is due to the Emergency declaration of June 27, alongside of the last 2 points of the 20 point programme which addressed itself to the material conditions of the student. Action is underway to supply student hostels with food grains, edible oil, sugar and other essential goods at controlled prices. At the same time, the Union ministry of education has released 10,000 tonnes of paper so that text books and exercise books may be available to students at reasonable prices. In this State, the government has organised meetings between students, heads of institutions and transport personnel to

discuss and agree upon means of making bus travel for students easy and at concessional rates. These measures to improve the material arrangements for educational institutions must be accompanied soon by a long range radical educational restructuring which is at the base of educational frustration and unease. In this State, the new syllabus for standards VI to IX has been published and is being followed. The new syllabus for standard X was published in July and will be followed in the schools from 1976-77. The new syllabus which has been broadened and updated does not provide for electives, provides 2 periods per week for physical education which has become an examination subject and one period each for arts and crafts and moral instruction. The new syllabus requires 200 working days with 5 hours instruction per day. For the new integrated maths and science syllabus, the State Institute of Education is providing schools with science kits and running regular refresher courses for primary and secondary school teachers. SITU's

research on the new syllabus finds that students in standards I to III do not find it difficult to comprehend the new mathematics concept and their computational skills are not weakened. The question of automatic promotions in schools is under debate in the Southern States. In the Tamil Nadu there is no automatic promotion, but the Department has under consideration fixing lower minimum marks for promotion from one standard to another. Where automatic promotion exists as in Andhra Pradesh, there are widespread complaints from the teachers that there is no incentive to students to study and work at their subjects. The alternative is not automatic promotions but an evaluation of the total performance of each student. For this there should be an appropriate teacher-pupil ratio. A research study in the city shows that among the 1,020 children examined, severe deafness is found in almost all cases due to consanguinity which is widely prevalent in the State, toxic fevers and malnutrition. This means that social, health and food customs must be changed and children must be carefully inspected on admission to help correct their deafness as otherwise they may be classed as retarded. The donations racket in schools and colleges again came to the fore as June/July are the admission months and many non-governmental institutions collect donations from students and parents and some of them give no receipt or give receipts for a lesser sum. This malpractice should be prohibited together with a system of adequate government grants to compensate the institutions. It is reported from Gujarat that history has become so unpopular for the final school examination that the government is issuing cycle styled copies of the text book and not printing them. This is serious in the total learning process of the student and calls for measures to make history an attractive

learning area. Another area of action reported in July is the development of slide teaching as a result of the Indian Registry of Pathology presenting very successfully pathology teaching materials on slides. This is now being extended to other areas—history, geography, maths etc. Such slide teaching is time saving and enables the teacher not to break contact with his students. This simple and cheap aid (40 paise per slide) should be spread widely as a teaching aid in schools. At the University level, UGC aid to poor students has functioned well, benefitting such students in all Universities and 2,000 colleges. In the development of Universities, the Union government's scheme for an open University is ready for being put into legislation. A central University is to be opened in Pondicherry, an agricultural University has been set up this year in Kashmir, a University is to be set up in Goa, Daman and Diu and the setting up of the Madras University of Science and Technology will soon become a reality. Kalyani University in West Bengal has been bifurcated into an agricultural University and liberal University, proposals have made for establishing new universities at Amravathi in Vidurbha in West Maharashtra, in Midnapore in Western Bengal and to raise the post graduate centres at Guntur and Warangal into full fledged Universities. There is also Tamil Nadu's proposal to establish Universities in Coimbatore and Tiruchirapalli. The important point in this expansion of institutions is not simply the rule that there must be an educational survey of the area and that UGC should be associated with it, but that except for States or territories where there are no higher educational facilities, these proposals should not involve an expansion of the number of students to be enrolled. Only in that way can resources be conserved to make higher education quality education.

Non-formal Education and SITE :

The Union government as noted in the last issue p 419, is launching a programme of Non-formal Education for the age-group 15-25, using the 'Nehru Yuvak Kendras as tools in the programme. Also in the second annual plan, provision is made for assisting voluntary organisations in their literacy programmes. The farmer's functional literacy programme is being expanded to 15-more districts (over the existing 107) and expanded to include dry farming areas. In this State, a comprehensive survey on all non-formal education activities had been completed by the Tamil Nadu Board of Continuing Education. It shows that there are 134 schemes of general and occupational education and training covering over 6 lakh persons. Among the programmes, the most effective are industrial training programmes run under the Apprenticeship Act and by the Polytechnics and Engineering colleges. Agricultural education is also good but is quantitatively reaching only a small number of farmers. The Tamil Nadu Agricultural University trains 140 farmers in 12 blocks in the Coimbatore district in improving farming practices. An evaluation of this educational effort shows that while difference in age, education, economic status, media participation and caste did not significantly influence variation of their farming technology and knowledge, there was a relation between knowledge, the extent of land holdings and the social status of the farmers. Another important finding was that only by transforming agricultural research results into non-formal education curriculum can extra yield be produced. The SITE programme starts on August 1. ISRO has placed 2,400 special TV community receivers, antennas and converters in 24,000 villages in Bihar, Orissa, MP, Karnataka, Andhra Pradesh and Rajasthan to receive programmes directly from the satellite. There will be

90 minutes broadcasting in the morning and 150 minutes in the evening. The experimental programmes beamed to the satellite had been successfully received by all the clusters. Now the quality of the programmes in the agriculture, health and family planning and literacy and the arrangements for using this instructional tool in the villages will decide the success of this important non-formal education effort.

Technical Education :

For this year the State government has increased engineering college admissions by 100 making a total of 1,390 admissions. Girls are entering in large numbers for electronic engineering. Arrangements have been made to make 2 polytechnics in the State autonomous. The Second Annual Plan in line with the objectives of consolidation and quality improvement provides finances for the development of the 5 IITs as major centres of technical education endowed with computer facilities, new teaching and training programmes and relevant science and technology and inter disciplinary research programmes, strengthening IIMs at Ahmedabad, Calcutta and Bangalore and starting work on one at Lucknow, expanded post graduate training in engineering and technology, practical training of 11,000 engineering graduates and diploma holders under the Apprenticeship programme and starting a third Technical Teachers Training Institute at Calcutta in addition to those at Madras and Chandigarh. In the field of medical education the Union government has under consideration the two institutional recommendations of the committee on medical education (see Vol V pp 5 and 292). The first is the setting up of a National Board of post-graduate Examination to help doctors acquire high level post-graduate qualifi-

cation. The proposal has been communicated to the State governments and in light of their view the Board will be set up. The second is the proposal for setting up a Medical and Health Education Commission with a whole time non-official chairman and Union, State, Universities, National councils representatives and leading personalities in health and medical education to co-ordinate and maintain standards in medical and health education. This too is under study and will be acted upon.

Science :

UGG constituted in July a Science Research Council and panels in the different sciences to promote fundamental research as recommended by the Science and Technology Plan (see Vol IV p 503). The Council's task is to expand such research in the Universities and fund it more adequately. NCST estimates that India will spend Rs. 2,350 crores on Science and Technology during the Fifth Plan in the Union, States and private sectors. The Planning Commission has allocated Rs. 1,033 crores for science and technology to which should be added non-plan and Defence Ministry expenditures which will make the Union outlay Rs. 1,800 crores. The States outlay is estimated at Rs. 250 crores and the private sector Rs. 300 crores. It points out that R and D expenditures increased from Rs. 28.81 crores in 1958-59 (0.23 per cent of GNP) to Rs. 246.02 crores in 1973-74 (0.42 per cent of GNP), 92 per cent met from Union and State funds and 8 per cent from private sector funds. The Union spent Rs. 209.64 crores (95 per cent) and States Rs. 12.87 crores, 5 per cent (and private sector Rs. 23.57 crores) in 1973-74. CSIR, Defence, ICAR and ICMR and space spent 81 per cent of R and D. R and D expenditure of CSIR, DAE and Defence was 16 per cent, ICAR 19 per cent, ICMR 2 per cent and space 2 per cent.

R and D in Universities and IITs increased from Rs. 6.85 crores (4 per cent of total) in 1958-59 to Rs. 5-90 crores (4 per cent of the total) in 1973-74. Among States, Gujarat stands first with Rs. 2 crores, and Tamil Nadu a low seventh (after UP, Punjab, Andhra, Maharashtra and Kerala) with Rs. 95 lakhs. The R and D expenditure of 191 private companies registered with DST increased from Rs. 16 crores in 1971-72 to Rs. 23.51 crores in 1973-74, 55 spending less than Rs. 1 lakh and only 20 spending more than Rs. 25 lakhs each mainly in chemical engineering. Only 29 public sector companies have R and D units which spent Rs. 11 crores (0.6 per cent of the sales turnover). The total scientific and technical personnel on April 1, 1974 is estimated at 15 lakhs (1971, 11.74 lakhs), of whom 95,000 were employed in R and D work. Upto 1972-73, 1,185 inventions had been registered with NDRC, of which 53 per cent were licensed to industries. The National Data Institute is setting up a national product bank to provide instant information on India technology, products and manufactures covering 30,000 products and process. It has published a national register of 1,500 consultancy firms and institutions in the country. The US is undertaking a \$6,00,000 project to develop a system for the information expansion in that country. CSIR's Karimnagar project started 3 years ago (see Vol III p 429) has made slow progress in the transport, housing and health fields, with some developments in leather, rice milling and drinking water supply. To speed the work the CSIR is appointing research fellows in Karimnagar and giving scientists working there the same facilities as to its other research scientists. How far this is an essential part of CSIR's applied and R and D work has been raised in the earlier issue of the Bulletin. It is the State which should come to the CSIR

labs for advice and not the other way around. CSIR has started a second project in Chandrapur in Maharashtra and was launching a polytechnic clinic to diagnose the functioning of industries in the area in Andhra Pradesh. This and the storage iron making process developed by NML in Jamshedpur is more in its link of work. Aryabhatta completed 103 days by the end of July travelling 70 million KMs, completing 1,400 orbits of the earth and executing some 280 commands. The enormous data it has sent back will take over a year to decode and analyse. Its problems included tumbling on the third day which was set right, non-functioning of one of its 14 power channels which led to giving up 3 experiments and the excess power consumption of one tape recorder which was corrected. 41 out of the 44 packages have been executed. In 1978 it is planned to send up a resources surveying operational satellite. Kerala has established a Rs. 50 lakh Forest Research Institute to do R and D on conservation, development and management of forests, optimum utilization of forest products and management of wild life. It is the only one of its kind in the country and should be of use to this and other States. In the medical field, the genetic control of Mosquitoes project (see

last issue p 422) has been replaced by the Vector Control Research Centre with laboratory at Delhi and field work in Pondicherry at a cost of Rs. 1 lakh a month. WHO's international panel has concluded that the dangers of genetic engineering can be controlled, so that the applications of these techniques to the prevention and therapy of human and animal diseases can continue while exercising caution in the choice of the experimental system and in handling micro organisms.

Health :

The Union ministry of Health announced that in April and May this year 1.2 lakh sterilisations and 45,800 IUD insertions were performed, representing an increase of 28 and 11 per cent over April and May 1974. Among outstanding accomplishment Tamil Nadu shares with Haryana, Gujarat, Maharashtra and Punjab the first place. In place of the failing intensive district and selective area schemes which have been discontinued, the new strategy is to deliver a package of health, medical care, family planning and nutrition services with a view to protecting 390 lakh couples during the Fifth Plan and reducing the birth rate to 30 per thousand.

* * * * *

V Employment

A survey by the Director General of Employment and Training of those registered with the live registers of all the Employment Exchanges in the States

during the period October 1972 to September 1973 atleast answers the questions as to how many of the job-seekers are really unemployed. The survey

results are: 27 per cent of the registered are employed, 7.3 per cent are students and 65.7 per cent are unemployed. 53 per cent are from urban and 47 per cent from rural areas. In the case of miners and quarry workers, the ratio of rural job-seeker was high (72.4 per cent), labourers with work experience 62.7 per cent and farmers and fishermen to 61.2 per cent. 7.6 per cent of job-seekers were illiterate, 40.2 were literate but below SSLC, 41.5 SSLCs, and under-graduates, 11 per cent graduates and about 12 per cent women. The proportion of employed persons was high in professional categories, 76.4 medical, 43.5 engineering graduates, 41.4 engineering diploma holders, 38.6 per cent agricultural graduates, 31.6 arts and commerce post graduates and 30.2 per cent ex-trainees of ITIs. CSIR's manpower bulletin has announced (Vol XVII No. 4) that the national register of scientific and technical personnel has been transformed into a manpower Data Bank containing information of labour 2,85,000 scientific and technical personnel. The Bank is divided into 3 registers, (a) General Register containing all persons who have atleast a B. Sc. or diploma in engineering and medicine numbering 2,21,300, (b) an Indians Abroad Register with overseas training numbering 18,900 and (c) A Specialists Register numbering 45,200. The bank includes a list of over 5,500 specialisations. In a subsequent issue (Vol XVII No. 5) the Bulletin quotes an UNCTAD study which states that the immigration of 3,141 scientists, engineers and medical personnel to the US has added 875 million a year at 1970 prices to that country. The Institute of Applied Manpower Research estimates that engineering employment in the country will increase by 10.83 per cent per annum during the Fifth Plan, involving an increase of engineering jobs from 6.82 lakh in 1973-74 to 10.52 lakhs in 1978-79. For the Fifth Plan, the addi-

tional engineers needed will be 1,13,834 (civil 90,233, mechanical 1,22,091, electrical 56,350, chemical 8,632, surveyors 11,991 and metallurgical 1,392). University teachers will increase by 6,630 to 23,180. Himachal Pradesh reports that it has reduced the margin from 25 to 10 per cent and extended the repayment permit of its loans to the educated unemployed from 10 to 12 years in the seven employment proposals for Rs. 12.58 approved in 1974-75. Out of the 300 graduate engineer applicants after training, 42 have set up their factories. The retraining of the applicants is an essential element of the scheme. Maharashtra appointed in July a study grant panel to assess manpower present and future needs of its industries to arrange adequate training programmes. In Tamil Nadu the demand for higher grade stenotypists, higher grade teachers diploma holders, and candidates from scheduled castes and tribes for posts ranging from health and nursing, teachers, LDCs and electricians, as well as English speaking women for receptionist posts were unavailable from the employment exchanges in April. In that month the number of candidates seeking jobs increased by 9 per cent and employers using the exchanges decreased by 38 per cent. Hence in order to ensure full use of the employment exchanges, in Andhra Pradesh government has ordered that all jobs of Rs. 500 per month or less should not be advertised unless the employment exchange gives a non-availability certificate to the government or private employer concerned. On the general labour front, the Tamil Nadu government has given statutory validity to the farm wages for the Thanjavur districts established at a tripartite conference of labourers, land owners and the district collector under which for men 6 litres of paddy and Rs. 2.75 per day or Rs. 6 per day is to be paid during the cultivation seasons, and for women 5 litres of paddy and Rs. 1.50 per day. During the

harvesting season for every 54 litres of paddy harvested, the wage will be 6 litres of paddy. In July, the Ambattur industrial estate faced industrial unrest in 25 units caused by inflation and union demands for higher wages, calling for government mediation. On the Prime Minister's 20 point programme as it affects employment and labour, fuller use of trained apprentices, use of all training places including placement of engineers and diploma holders in 5,500 establishments are under way. The problem is large. Out of one lakh training places, only 66,000 apprentices are being trained. In the Union sphere 21,000 places out of 31,000 and in the State sphere 45,000 out of 69,000 are being used. The Union government is adding 40 additional trades to the application of the Apprenticeship Act. Also the Union Labour Ministry has worked out a scheme for workers' partici-

pation in industry at the shop floor and production programme level on the basis of the July Labour Ministers Conference recommendation. To begin with shop councils for each department or shop or one council for more than one department in every industrial unit employing more than 500 workers is to be set up. As for the 47.48 million agricultural workers (1971 census), whose average wage is Rs. 2.03 for landless worker and Rs. 1.90 for a small cultivation, who spend more than they earn (in Tamil Nadu 19 per cent more) according to 1970/71 NSS, the Union ministry is drafting a comprehensive law for all categories of agricultural workers to protect their employment, wages and conditions of work modelled as the Kerala Agricultural Workers Act. This could certainly serve as a model law for every state to adapt and adopt.

VI Other Items

National Council of Teacher Education :

The first meeting of the Committee on Elementary Teacher Education of the National Council of Teacher Education met in Mysore on July 8 and 9 and decided to consult the class room teachers in the plan for reforming elementary teacher training and work on the place of non-formal education is such training. It drew up a list of priorities for restructuring elementary teacher training, including manpower planning, improvement of

selection procedures for the student trainees, developing a special B.Ed. course for elementary teacher educators and a continuous in service training programme for servicing teachers. It was agreed that elementary teacher training if organised to cover both formal and non-formal education would make possible the realisation of the constitutional directive of universal primary education.

Tamil Nadu Board of Continuing Education :

- (a) The survey of and the plan for

Non-Formal Education in Tamil Nadu was finalised by the President of the Board and sent to press at the end of July. As noted earlier, after an analysis and evaluation of the activities of 6 government departments and 100 voluntary agencies, the Plan sets forth policy recommendations including formulation of a government policy on formal and non-formal education as sub-systems and the funding of the programme of non-formal education. It also has a chapter on the curricular content of the various non-formal education programmes, (b) In connection with the International Women's Year, Mrs. Nedunchezian as noted in the last issue p. 426, as Chairman called a meeting of Board members and others to plan a 2 day seminar in September of women workers from the four Southern States and Pondicherry to participate in a seminar on non-formal education for women. It was agreed that the seminar will concentrate on literacy, health, welfare and occupational education and training programmes for rural and urban women and will be inaugurated by the Education Minister and concluded by the President of the Board. (c) The first executive committee of the Board met in early July, designed a format for the submission of further information by agencies whose projects had been approved by the Board, reviewed the functioning of the San Thome out-of-school project and established the memorandum of association for registering the Board under the Indian Societies Registration Act.

Educational Finance :

The Educational Finance Review Committee met twice in July to review and approve the statistical reporting system to make it more realistic and reliable. It also examined the school and college building programme in order to see how they could

be more functional, more economical and more appropriate and relevant to our rural and urban conditions and needs. The Committee's existence has been prolonged till October 15, so that it can complete its rather large mandate of reviewing the entire educational financial picture.

Economics Teaching and Research :

The occasion of the visit of Dr. John Lewis from Princeton and Dr. Stephen Biggs from Sussex was used by the Ford Foundation to discuss the status of Economics teaching and research in the country and how the Ford Foundation can help in its further development. Meetings of leading economists were held in Delhi, Bombay and Calcutta and the general consensus was on the need for teaching material to arise out of Indian conditions and on this the work has to be done by us Indians. In the field of research the need for development of disciplinary and interdisciplinary research was stressed, the main problem being the falling standards of those entering the Ph. D area in economics. Foundation co-operation to maintain contacts between Indian and foreign scholars can be of help, it was agreed.

Council of Social Development and Andhra Mahila Sabha :

There was a brief meeting of the Council of Social Development, New Delhi in July primarily to re-elect the President and Honorary Director for a second five year term. The meeting also reviewed the current state of programme execution in the council and noted the progress of its publication programme. The monthly meeting of the standing committee of the Andhra Mahila Sabha reviewed plans for improving the functioning of the out patient department, the working conditions of the doctors and decided on some amelioration of the general ward.

IIT :

The Indian Institute of Technology admitted 250 students to its first year B.Tech. degree for the year. The problem and opportunity presented by the Institute and its students is that they are educationally the most privileged group, with the higher per capita expenditure on their education by the government and their parents on the one hand and on the other a danger of becoming isolated from the realities of our poverty ridden, basic needs denied society. The Institute is conscious of this duality and its programme of orientation of the new students and continuing education of all its students and staff lays stress on their larger social responsibility,

Institute for Environmental Studies :

A committee for the establishment of an Institute for Environmental Studies set up by the government in March completed its work in July and concluded that (a) it is feasible to set up such an Institute, (b) the Institute should be located at the College of Engineering, Guindy, which is to become the Madras University of science and technology to which it will be attached as an autonomous Institute, (c) it will be built up on the Centre for Environmental Education and Training that is fast developing in the college and (d) its main function is to promote action oriented research in all aspects of environment, water, air, land use etc. It could become a UNDP country project and receive substantial foreign exchange assistance for its equipment component.

Special Seminar :

The second session of the special seminar on Educational Development in Tamil Nadu was held on Friday July 25 at which Mr. V.T. Titus's paper on Set-

backs in Educational Policy and Programmes was discussed. There was agreement on the major point of the paper, that our set backs flowed from the lack of a policy, a policy statement, a definition primary and secondary goals which affected even some of our achievements such as the quantitative expansion, mid-day meals and mass teacher training.

Director of MIDS honoured :

Further to the report in Vol V p 364 about the conferment of honorary degrees by Carleton University, Canada and Andhra University, Waltair on Dr. Adiseshiah, the Andhra University citation on the occasion reads as follows: "Dr. Adiseshiah is not new to the Andhra University. He headed the Review Committee on Social Science Departments of this University and in this connection visited the campus many a time. He was also here only last December to preside over the Indian Economic Conference, which was held in this University.

Dr. Adiseshiah is a man with limitless dynamism, a deep sense of patriotism, and a very sincere commitment to the cause of the under developed sections of humanity. His career is an illustration of these qualities.

Remarkable is the career of Dr. Adiseshiah who rose from a lectureship in Economics at St. Paul's College, Calcutta, to the post of Deputy Director-General UNESCO. His career is an eloquent illustration of the dictum that hard work and merit elevate a person to the highest positions in life.

" The heights by great men reached
and kept
Were not attained by sudden flight"

Born in the year 1910, he has his early education in Vellore. He went to Loyola College, Madras and from there proceeded for studies in the London School of Economics and Political Science, at King's College, Cambridge. On his return to India, he was Professor of Economics at Christian College, Madras, and later at St. Paul's College, Calcutta.

It was in the year 1948 that he joined the UNESCO where he served for a period of 23 years making significant contribution to the UNESCO's efforts to achieve the educational and cultural advancement of mankind. In this organisation, which he joined as Deputy Director, he was soon given the responsibility of developing a new Department of Technical Assistance. As its Director, he became one of the 6 top Executives in the organisation. He was responsible for launching over 120 projects in various countries. During the last 8 years of his service with the UNESCO, as its Deputy Director-General, he was instrumental in making the organisation an agency co-operating with all its Member-States in the expansion and acceleration of education, science and technology. Particular mention must be made of the Karachi Plan for Universal Primary Education for Asia, and the Addis Ababa and Santiago Plans for Africa and Latin American Educational Development, which owe their initiation and implementation to Dr. Adiseshiah. These amply demonstrate that he truly understood the spirit behind the foundation of the United Nations Organisation — that in the long run the conditions for peace depend upon educational advancement and inter-cultural understanding among the peoples of the world. Nor did he forget the needs of India. Dr. Adiseshiah was responsible for the UNESCO's decision to extend assistance to the programmes of translation of

indian classics and of Temple Renovation in India.

His retirement from the United Nations service proved only to be a return to even more strenuous work in the cause of education and public service. Since 1970, Dr. Adiseshiah has plunged himself into varied activity. He and his illustrious wife have founded the Madras Institute of Development Studies, endowing their personal funds into an educational trust. This Institute is indeed a rare example of generosity done to foster research for the benefit of the community. The Institute has become a research institute and documentation centre of repute and is serving as a meeting point for educationists and economists of the country, of the South in particular. The focus of enquiry of the Institute reflects Dr. Adiseshiah's enduring commitment to the cause of the under-privileged. The Institute has undertaken many studies on the Harijan Community, Women's Welfare, Areas of Poverty, Incomes and Social Status and the like. Dr. Adiseshiah has also been active in other fields. He is a Member of the Tamil Nadu Planning Commission and is on the Steering Committees of the Indian Planning Commission. He is also on the Central Advisory Board of Education and the Indian National Commission for Co-operation with UNESCO. In this context, his close involvement in the advancement of Social Sciences in this country needs particular mention. He headed the Review Committee of the Indian Social Science Research Council and the Report of this Committee has contributed much to the future advancement of Social Science Research in this country. Very recently, he presided over the meeting of the Asian Association of Social Science Research Councils.

He is an active writer. His two books, *Let My Country Awake* and *It is Time to Begin* seek to clarify the basic concepts concerning the contribution of education, science and culture to development. The first title, *Let My Country Awake*, an echo from Tagore, gives clear intimation as to where the intellectual moorings of the author lie. More recently Dr. Adiseshiah wrote *Towards A Learning Society, and Science in the Battle Against Poverty*. Dr. Adiseshiah has received honours and distinctions from various Countries, Universities and Institutions.

It is a wonder how a man could find the time and energy to do so many things and so well. In the case of Dr. Adiseshiah the secret lies in the fact of a very happy and harmonious combination of hard work, belief in the capacity of intellect and education to transform the human condition, and above all the ability to influence people.

Dr. Adiseshiah is, in the best sense of it, a citizen of the world. He has not merely served the world organisation, he has vowed to serve the world of men and women and has been keeping his vows, the pious Christian he is, truly and steadfastly.

Director accepts Vice-chancellorship :

On July 31, the Chancellor of the University of Madras, the Governor of the State, announced that Dr. Malcolm S. Adiseshiah had accepted his invitation to become the Vice-chancellor of the University of Madras from August 1, 1975 for a period of 3 years.

August Seminar :

The August Seminar paper, the urban Poor by Prof. S. Ramanathan Director, Centre of Social Studies, Madras together with a summary of the discussion of the paper on Thursday August 28 under the chairmanship of Mr. J. Ramachandran, Principal, Presidency College appears as the first article.

Second Article :

Part II of the paper, Higher Education Development Perspective, appears as the second article.

Book Review :

A review by Mr. R. Ramanujam, Professor of Economics, Vaishnava College, of the Institute Publication No. 9 *Small Fishermen in Tamil Nadu* by C. Selvaraj appears in the book review section.

URBAN POOR

By

Prof. S. RAMANATHAN
Director, Centre of Social Studies, Madras.

General Introduction

The definition of the word "urban", adopted for this Paper, is the same as has been adopted by the Indian Census, which is as follows :

- (a) All places with a Municipality, Corporation or Cantonment or notified town area.
- (b) All other places which satisfied the following criteria :
 - (i) a minimum population of 5,000
 - (ii) at least 75 per cent of male working population is non-agricultural
 - (iii) a density of population of at least 400 per sq. Km. (i.e. 1,000 per sq. mile).

The Director of Census of a State or Union Territory was however given some discretion in respect of some marginal cases, in consultation with the State Government, to include a place that had other distinct urban characteristics or to exclude an undeserving place from being treated as urban". (Census of India, 1971, Paper I of 1971—Supplement, p. 3)

There has been no uniform definition of the word "urban", applicable to all countries because of the greatly varying conditions between one country and another. With this limitation in mind, we may look at the proportion of the urban population to the total population in India and a few other countries.

TABLE - I
PROPORTION OF URBAN POPULATION TO TOTAL
POPULATION IN SOME COUNTRIES

S. No.	Country	Last Census year	Percentage of urban Population to total Population
1.	United Kingdom	1968	78.87
2.	Canada	1966	73.58
3.	France	1968	69.97
4.	U.S.A.	1960	69.86
5.	Japan	1965	68.09
6.	U.S.S.R.	1969	55.85
7.	U.A.R.	1969	41.64
8.	India	1971	19.87
9.	Ceylon	1963	18.87

(Source : Census of India, 1971, Paper I of 1971—Supplement, p. 4)

(Note : It is necessary to keep in mind the size of population, in absolute number, whenever two or more groups of population are compared).

It is seen that the urban population in India accounts for a little less than 20% of the total population, while it is very nearly 79% and 74% in the United Kingdom and Canada respectively. It may, however, be noted that the urban population of about 108.8 millions in India far exceeds the total population of the United Kingdom, Canada, France, Japan, U.A.R. or Ceylon. The type of the Indian economy, which is basically agricultural, is reflected in the high percentage of the rural population of about 80 or about 438.6 millions in absolute numbers. While India occupies a relatively very low position in the degree of urbanisation in comparison to the 'developed' countries, the problems arising from urbanisation in India assume great significance and dimension, because of the large number of persons involved and because of the

general low standard of life in India, as compared to the 'developed' countries.

It may also be noted in passing that in the ranking of the first 25 largest cities of the world, Calcutta with about 7 million population, Bombay with about 6 million population and Delhi with about 3.6 million population occupy the 7th, 12th and 21st places respectively. Madras City with its 2,470,288 population, ranking fourth among the largest Indian Cities, does not find a place among the 25 largest cities of the world.

2: Tamil Nadu

Tamil Nadu is the second most urbanised State in the country, next only to Maharashtra, as may be seen in the following Table:

TABLE - 2
PROPORTION OF URBAN POPULATION TO TOTAL
POPULATION IN THE STATES IN 1961 AND 1971

S. No.	State	Percentage of urban population to total population	
		1961	1971
1.	Andhra Pradesh	17.44	19.35
2.	Assam	7.37	8.39
3.	Bihar	8.43	10.04
4.	Gujarat	25.77	28.13
5.	Haryana	17.23	17.78
6.	Himachal Pradesh	6.34	7.06
7.	Jammu & Kashmir	16.66	18.26
8.	Kerala	15.11	16.28
9.	Madhya Pradesh	14.29	16.26
10.	Maharashtra	28.22	31.20
11.	Mysore (Karnataka)	22.23	24.31
12.	Nagaland	5.19	9.91
13.	Orissa	6.32	8.27
14.	Punjab	23.06	23.80
15.	Rajasthan	16.28	17.61
16.	Tamil Nadu	26.69	30.28
17.	Uttar Pradesh	12.85	14.00
18.	West Bengal	24.45	24.59
INDIA		17.98	19.87

(Source : Census of India, 1971, Paper I of 1971—Supplement, p. 5)

If we take the first five most urbanised States in the country, the highest increase in the percentage of urban population to total population during the decade 1961-71 was registered by Tamil Nadu with 3.59, while it was only 2.98 in Maharashtra, 2.36 in Gujarat, 0.14 in West Bengal and 1.98 in Mysore (Karnataka). The cause for the increase in the urban population of these five States is not far to seek. These five States are the most industrialised States in the country. It is known that industries which are mostly located in urban areas, draw rural labour,

and it is also known that part of the rural areas on the belt of urban areas get urbanised. There is, thus a definite correlation between urbanisation and industrialisation. States like Assam or Nagaland the urban population of which is less than 10% of the total population of the State are the States considerably less industrialised than Maharashtra, Tamil Nadu, Gujarat, etc.

The classification of Towns according to population size, as has been adopted by the Indian Census, is shown below :

Classification	Population Size
Class I Towns (Cities)	100,000 and above
Class II Towns	50,000 to 99,999
Class III Towns	20,000 to 49,999
Class IV Towns	10,000 to 19,999
Class V Towns	5,000 to 9,999
Class VI Towns	Less than 5,000

(Source: Census of India, 1971, Paper I of 1971—Supplement, p.7)

The interval scales are even except in the case of the scale between Class III and II Towns.

The number of Towns of all sizes in India as of 1971 was 2,921, consisting of 142, 198, 617, 931, 756, and 277 Class I, II, III, IV, V and VI Towns respectively for a total urban population of 108,787,082. In the number of Towns of all Classes, Tamil Nadu tops the list with its 443, followed by Uttar Pradesh with 293, Maharashtra with its 289, Madhya Pradesh with its 242, Mysore (Karnataka) with its 231 and Gujarat with its 217. In

the number of class I Towns (Cities), Uttar Pradesh tops the list with its 22, followed by Maharashtra and Tamil Nadu with 17 each, Madhya Pradesh and Mysore (Karnataka) with 11 each and Gujarat with 7. West Bengal, one of the five most urbanised and industrialised States in the Country, has only 5 Class I Towns.

The number of Towns in the different Size Class with the population in percentage in Tamil Nadu in 1951, 1961 and 1971 are shown below :

TABLE - 3

NUMBER OF TOWNS IN DIFFERENT SIZE CLASS TOWNS WITH POPULATION IN TAMIL NADU IN 1951, 1961 AND 1971.

Size Class	No. of Towns	1951 Population as % of total urban population	No. of Towns	1961 Population as % of total urban population	No. of Towns	1971 Population as % of total urban population
Class I	8	37.69	11	41.33	17	43.81
Class II	13	12.58	22	16.16	27	13.53
Class III	55	23.54	60	20.51	79	20.89
Class IV	81	15.31	96	14.49	117	13.37
Class V	90	9.50	81	6.84	100	5.96
Class VI	27	1.38	17	0.67	103	2.44
	274		287		443	

(Source : Census of India, 1971, Paper I of 1971—Supplement, pp. 8-9)

The population in absolute numbers in 1971 in Class I Towns was 5,452,314, in Class II Towns 684,551, in Class III Towns 2,599,414, in Class IV Towns 1,664,609, in Class V Towns 742,170 and in Class VI Towns 303,802 for a total of 12,446,860. (Source : Census of India, 1971, Paper I of 1971—Supplement, p. 57).

The number of Class I Towns in the State more than doubled from 8 to 17 between 1951 and 1971 with a steadily increasing percentage of the population from 37.69 to 43.81, the growth rate being (+) 34.42 between 1951 and 1961 and (+) 46.72 between 1961 and 1971, while the corresponding growth rate for all Size Class Towns in the State was (+) 22.59 and (+) 38.44. The sex ratio in Class I Towns as of 1971 was 928 females for 1,000 males, while the corresponding ratio for all Size Class Towns in the State was 951. The sex ratio of 928 in Class I Towns is the second lowest, while the

lowest sex ratio of 904 is found in Class IV Towns. The increase in the population of Class I Towns is to be attributed to the twin causes of the surplus number of births over deaths within Class I Towns and the number of persons who have migrated into Class I Towns from the other Size Class Towns and/or from the rural areas. The very low sex ratio in Class I Towns may indicate, among other things, that those males who migrate into Class I Towns either to take up employment or seek employment come single in the first instance leaving behind the female members of the family and/or they are unmarried.

The number of Class II Towns also more than doubled from 13 to 27 between 1951 and 1971; but, it is seen that the percentage of population has decreased from 16.16 in 1961 to 13.53 in 1971. The percentage of the urban population in Tamil Nadu has been steadily increasing

from 24.35 in 1951 to 26.69 in 1961 and to 30.28 in 1971, and it can, therefore, be reasonably presumed that there has been practically no migration from urban to rural areas. It is also seen that there is a fluctuation in the percentage of population in all Size Class Towns except in Class I Towns either between 1951 and 1961 or between 1961 and 1971 or, again, between 1951 and 1971. Based on the above two observations, it can be stated that an interesting pattern of migration emerges, the pattern being that generally the rural people first migrate to a smaller Size Class Town and then move on to a bigger Size Class Town. If this is accepted, a corollary of this pattern, which would also have to be accepted, is that a person who has migrated from a rural area to a smaller Size Class Town in the first instance and has then moved into a bigger Size Class Town would have become 'urbanised' in the process. It, then, follows that the problems of those who

have moved into a bigger Size Class Town from a Smaller Size Class Town are likely to be different from those who have migrated from a rural area to a bigger Size Class Town directly. This differentiation may have to be borne in mind while making policy decisions.

While the number of Class VI Towns increased from 27 in 1951 to 103 in 1971 (almost a four-fold increase), the percentage of population increased from 1.38 in 1951 to 2.44 only in 1971, after having dropped to 0.67 in 1961. Could it be that Class VI Towns are not very different from rural areas with no employment opportunities and, consequently, do not attract rural migration?

One need not get panicky from the fact that 43.81% of the total urban population, as of 1971, lives in 17 Class I Towns. In this context, the following Table would be of interest :

TABLE-4
STATES WITH THE NUMBER OF CLASS I TOWNS AND
THE POPULATION IN 1951, 1961 AND 1971

S.No.	State	1951		1961		1971	
		No. of Class I Towns	Population as % of total urban population	No. of Class I Towns	Population as % of total urban population	No. of Class I Towns	Population as % of total urban population
1.	West Bengal	6	57.47	11	56.54	5	70.25
2.	Jammu & Kashmir	1	54.84	2	67.05	2	66.31
3.	Maharashtra	7	50.38	13	64.96	17	64.74
4.	Uttar Pradesh	16	45.21	17	54.43	22	57.07
5.	Mysore (Karnataka)	6	36.40	6	41.27	11	49.34
6.	Andhra Pradesh	6	32.52	11	42.66	13	48.39
7.	Madhya Pradesh	5	33.24	8	39.06	11	45.42
8.	Bihaar	6	37.13	9	43.11	11	45.40
9.	Gujarat	6	38.09	6	43.48	7	44.99
10.	Tamil Nadu	8	37.69	11	41.33	17	43.81
INDIA		81	41.77	113	48.37	142	52.41

(Source : Census of India, 1971, Paper I of 1971—Supplement, pp. 8-9).

It is seen that Tamil Nadu with its 43.81% of the total urban population in its 17 Class I Towns in 1971 occupies the tenth rank among the States in the country, and is also well below the country's average of 52.41. It may be noted that the variation of 6.12 points between 1951 and 1971 in the population of Class I Towns in Tamil Nadu is the lowest, while it is 15.87 in Andhra Pradesh, 14.36 in Maharashtra, 11.94 in Mysore (Karnataka), 12.78 in West Bengal, 12.18 in Madhya Pradesh, 11.86 in Uttar Pradesh, 11.47 in Jammu & Kashmir, 8.27 in Bihar and 6.90 in Gujarat. The increase in the urban population of the State and in Class I Towns is not alarming; but, at the same time, we need not be complacent about it.

The positive variation in the percentage of the total urban population in Tamil Nadu during the period 1951 - 71 has been 5.93 points. This increase may be taken to represent (a) the surplus number of births over deaths in the urban areas, (b) the number of persons who have migrated from the rural areas to work in the industries which are mostly located in the urban areas and (c) the number of persons who have migrated from the rural areas to urban areas in quest of steady employment either because they were unable to get steady

employment or any employment in the rural areas. It can be expected that (a) an effective and intensified Family Planning programme in the urban areas, (b) locating medium and small scale industries in the rural areas as far as possible, (c) well planned, continuing public works programme to generate full-time and part-time employment opportunities in the rural areas, (d) starting small workshops in the rural areas to manufacture minor tools, implements, etc. needed by the rural people and (e) providing some of the basic welfare services to the rural people would go a long way in arresting rural migration to the urban areas. It may be pointed out that (1) while efforts are made to improve the agricultural industry to improve production the human beings involved in that industry are mostly ignored in sharp contrast to the workers in the other industrial units and (2) providing the needed welfare services to the rural people in the rural areas would be considerably less expensive than providing the same services in the urban areas.

What possible measures can be suggested to arrest the population growth in Class I Towns? The Class I Towns in the State with some of their characteristics are given in the following Table:

TABLE - 5

**CLASS I TOWNS IN TAMIL NADU WITH POPULATION,
GROWTH RATE AND SEX RATIO**

S.No.	Name of Town	1971 Population	Growth Rate		Sex Ratio (1971)
			1951-61	1961-71	
1.	Madras City	2,470,288	22.11	42.86	902
2.	Madurai	548,298	17.42	29.07	949
3.	Coimbatore	353,469	44.78	23.46	897
4.	Salem	308,303	23.13	23.74	949
5.	Tiruchirappalli	306,247	14.13	22.57	947
6.	Tuticorin	154,804	25.65	24.61	982
7.	Nagercoil	141,207	33.96	32.95	994
8.	Thanjavur	140,470	10.35	26.44	973
9.	Vellore	138,220	7.28	21.52	957
10.	Dindigul	127,406	18.61	37.07	969
11.	Singanallur	113,397	24.29	359.58	928
12.	Tiruppur	113,171	52.01	41.87	927
13.	Kumbakonam	112,971	1.02	22.02	992
14.	Kanchipuram	110,505	9.32	19.19	967
15.	Tirunelveli	108,509	19.75	23.32	986
16.	Erode	103,704	28.11	40.59	925
17.	Cuddalore	101,345	14.60	28.01	976
All Class I Towns		5,452,314	34.42	46.72	951

(Source : Census of India, 1971, Paper I of 1971—Supplement, pp. 209-210.)

Developing carefully planned 'satellite' towns of Size Class IV (population size between 10,000 and 19,999) beyond a radius of 32 Km. (20 miles) from a Class I Town can possibly arrest the undue growth of Class I Towns. For this purpose, Coimbatore and Singanailur, Thanjavur and Kumbakonam, and possibly Tuticorin/Tirunelveli and Nagercoil may have to be treated as one unit. The suggested 'satellite' towns are not to be construed as 'suburban' towns in the western sense. (There is, incidentally, an excellent Paper by Dr. C. T. Kurien on "Problems of Suburbanisation" from a theoretical angle—M.I.D.S. Seminar of August 1971) Industry of any size should not be permitted to be started in Class I or Class II Towns. There are no Class I Towns in the Ramanathapuram or Dharmapuri District or in the newly formed Pudukkottai District. It is well-known that Ramanathapuram and Dharmapuri Districts are the two most 'backward' Districts in the State. Suitable industries may be started in the above-mentioned three Districts, though the necessary infrastructure would have to be developed. For the employment opportunities, as and when they arise, in the governmental and quasi-governmental bodies and in the Public, Private and Joint Sector undertakings in Class I Towns only those who or whose immediate families have a minimum period of domicile of three years in the particular Class I Town should be considered as a matter of policy except in cases where persons with suitable specialised qualification or experience are not available. The possibility of shifting the District Head-Quarters Offices from Class I Towns to Class III or Class IV Towns should also be considered.

The measures indicated above would not only arrest the growth of population in the urban areas and in Class I Towns

but would also arrest the increase in the number of the 'urban' poor or the extent of 'urban' poverty.

3. 'Urban' Poor / 'Urban' Poverty

The word 'poor', as is well-known, is a relative term. There is no 'country' in the world, 'developed', 'under-developed' or 'un-developed', in which there is not a segment of the population which can be described as 'poor', irrespective of how 'poverty' is defined. 'Eradication of Poverty' can be a good political slogan of expediency or an idle dream. There seem to be some general or vague descriptions of poverty. Most of us understand poverty in the abstract. In the case of some of us, the mental image of poverty may even be based on our own value judgment. This Seminar would really be fruitful if during the discussion the participants formulate a definition of poverty suited to the Indian context. This writer is not vain enough to offer a definition of poverty for discussion. Again, this writer is not certain in his mind whether the multiplication of needs would in any way affect the concept of poverty. Though the Joint-Family and Caste systems may soon become things of the past, one may be inclined to ask to what extent, if at all, those systems mitigated poverty in the country.

There are varying estimates of the percentage of people living below the Poverty Line in Tamil Nadu, and similarly, for the country as a whole. According to the Draft Perspective Plan Frame for Tamil Nadu, 1972—84, "sixty per cent of the people of Tamil Nadu are estimated to be living on or below the poverty line. Their daily food consumption ranges from 1,000 to 1,800 calories. They live in urban slums or rural huts with little access to health or hygienic facilities." According to another estimate, 55.16% of the urban

and 50.94% of the rural people of Tamil Nadu are below the poverty line. The tool (the only tool) that has been adopted in the various estimates of poverty has been the per capita consumption of calories fixed at 1,800, 2,200 or 2,500 calories per day or its equivalent in terms of money value. Food, clothing and shelter have generally been accepted as the three basic necessities of life. If two of the three basic necessities are left out the picture of poverty cannot but be a distorted one. Further, an instrument to measure the scale of values of the 'poor' may also have to be developed, particularly when the 'status symbols' play a significant role. Even when the poverty line is drawn with appropriate tools, should there be 'selective attack' on poverty, and, if so, should it start with the bottom, middle or top segment? Since the dividing line between many in the so-called 'lower middle class' and the 'poor' seems to be a very thin one, what measures can be devised to prevent them from slipping below the poverty line? The answers to these questions may be very relevant to evolve a suitable plan to mitigate poverty.

At least one important thing stands clear now. After about two decades, it has come to be realised that increasing 'growth rate' does not automatically mitigate poverty, a lesson which the 'common man' was trying to teach us by crying hoarse from the early 1940s that 'the rich are getting richer and the poor are getting poorer.'

Mention may be made here of a very interesting thesis of Dr. C. T. Kurien in his paper, "Frame-Work of a Plan to Abolish Poverty" (M.I.D.S. Seminar, January 1973). He says that, "Mass poverty exists because the mass of the people do not, and under the circumstances cannot, contribute to productive activity; and

hence have become a drain on the economy by existing as consumption agents to the extent that they do consume." He goes on to say that "...there can be no solution to the poverty situation except through activating the vast idle human resources that the economy grudgingly tolerates at the moment." He suggests that, "a plan to abolish poverty must be an attempt to reorganise the economy to produce the goods for mass consumption by the masses." To activate the vast idle human resources is a serious problem, and he has not given any clue as to how it can be done. But, would it not be worthwhile to experiment with his suggestion, with some modifications to make it more practical, in a limited way in a suitable geographical unit? In this context, what is being done in the ten Government (Leprosy Beggars) Rehabilitation Homes in the State would be of interest. In those Homes most of the patients/in-mates are given training in tailoring, carpentry, handloom weaving, mat-weaving, etc., and in one of the Homes components for Type-writers are also manufactured in the fabrication workshop. The value of the goods produced in these Homes is fairly substantial. The workers are paid wages according to what they produce, and the net income off-sets the administrative costs to some extent. As an experiment, some Production cum Service/Sales Centres may be started in urban and rural centres in an effort to draw in idle human resources, and this programme, incidentally, may also provide employment to some of the unemployed I.T.I. trained craftsmen.

4. Madras City (Class I Town)

Madras City is unique in several respects among the 17 Class I Towns in the State. Detailed particulars about the Slum dwellers and some statistics about the Pavement dwellers are given in the "Socio-Economic Survey of Madras

Slums" (1975) by the Tamil Nadu Slum Clearance Board, Madras.

These two groups alone do not, as we all know, constitute the poor in Madras City. Among the other groups is the group of Beggars, numbering about 7,000. The members of this group generally issue 'Passports' to private alm-givers for Heaven.

The Government of India Slum Areas (Improvement and Clearance) Act of 1954 defines a slum "as any predominantly residential area, where the dwellings by reason of dilapidation, overcrowding, faulty arrangement, lack of ventilation, light or sanitary facilities or any combination of these factors are detrimental to safety, health or morals." Those who formulated this definition should have been blissfully ignorant about the nature of the residential areas in the country and, consequently, did not realise that most of the residential areas in the country would be covered by the definition. The Tamil Nadu Slum Clearance Board, more prudently, defined a slum as "hutting areas with huts erected in a haphazard manner without proper access, without protected water supply and drainage arrangements and so congested as to allow of little free flow of air to get in." It is further explained that, "Slums generally present the most unhygienic, ugliest, nauseating scene. During the rainy season, the whole area gets flooded, the path-ways become swampy and the entire colony become as fertile breeding place for mosquitoes, exposing the slum dwellers living in the area to all sorts of diseases." This explanation/description would cover many parts of the city. "Hutting" seems to be the most important criterion for a slum in Madras City.

There were 1,202 slums of varying sizes in the City in 1970, and as of over 1,000 of them have been cleared. The rest are expected to be cleared by 1977. We can hopefully expect that there will not be any slum in the City after 1977 since the second objective of the T.N.S.C.B. is "To prevent further growth of slums in Madras City."

As of 1971, the population of the slum dwellers and pavement dwellers was 7,37,531 and 9,129 respectively, accounting for one third of the City's total population. The age of the slums is shown in the Table below :

TABLE - 6
AGE OF SLUMS IN MADRAS CITY

S. No.	Age of Slum	No. of Slums	Percentage of the total
1.	Over 50 years	147	12.23
2.	50 to 36 years	212	17.64
3.	35 to 21 years	117	9.73
4.	20 to 11 years	72	5.99
5.	10 to 6 years	639	53.18
6.	5 years and less	15	1.23
		1,202	100.00

A direct question as to when the head of a slum household came to Madras City is not found in the instrument used to collect the data, and the Census Reports give only the number of slums as of the Census years. It is, therefore, not clear

how the data was collected for the interval scale used in the Table. It is very significant to note that 54.41% (654 of the 1,202) of the slums in Madras City had come into existence within the past 10 years, i.e. 1965.

TABLE - 7
OWNERSHIP OF LAND IN WHICH STRUCTURES
ARE CONSTRUCTED

S. No.	Ownership of Land	Percentage of slum families to the total slum families
1.	Private	31.96
2.	Corporation	8.11
3.	Government (State)	35.69
4.	Housing Board/Slum Clearance Board	13.09
5.	Port Trust	0.03
6.	Hindu Religious Endowment/Wakf	
	Board/other missions	9.01
7.	Others	2.12

Keeping in mind that 54.41% of the slums had come into existence within the past 10 years, we find in the Table above that 56.89% of the slums had come into existence on the land belonging to the government and quasi-governmental bodies. Further, 31.96% of the

slums had sprung up on private land. It is amusing to note that "The christening of slums in the name of political leaders made it difficult for the owners of the land to evict the unauthorised hut dwellers." Comments on the above two observations would be superfluous.

TABLE 87
INCOME RANGE OF SLUM HOUSEHOLDS

S. No.	Monthly income in Rs.	Percentage of Households
1.	10-50	2.01
2.	51-100	27.78
3.	101-200	52.36
4.	201-300	13.68
5.	301-400	2.92
6.	401-500	0.81
7.	500 and ab.	0.46
Total		100.00

Leaving aside households in the monthly income range 101 to 200, it is seen that the monthly income of 17.87% of the households is Rs. 201 and above. This group would have to be considered as being above the poverty line since 'The State Planning Commission has fixed an ideal food requirement of about 2,500 calories for an average adult. In terms of value a family of 5 persons (4 adult consumption units) in Madras City would require an absolute minimum expenditure of Rs. 186 per month;.....' (Paper by Dr. P.V. Raj Kumar, M.I.D.S. Seminar, June 1975). It may also be noted that 1.1% of the slum households are single member households, 34.58% of the households have 2 to 3 members and 48.69% of the households have 4 to 6 members, accounting for a total of 84.38% of the slum households.

While there are many other particulars which deserve careful and objective scrutiny, the fore-going raise many questions relating to the policies that

have been adopted, particularly in the recent past. While providing concrete tenements to the houseless at nominal or no rent is laudable, two very crucial questions arise:

(1) Should trespassers be rewarded and thereby encouraging further types of trespass?

(2) What is the extent of the economic loss to the State-Government and the tax-payers? The total ground value of the sites on which the buildings of the Slum Clearance Board have been constructed, more particularly on the South Beach Road, would be an astronomical amount.

Further, what is to be the recurring cost to prevent these buildings from lapsing into 'concrete slums'? Are these four-storied buildings suitable particularly for the fishermen community? How many of these flats have been sub-let by those for whom they were intended?

Summary of Discussion

In the discussion of the paper at the Seminar held in the Seminar room of the Institute on Thursday the 28th of August 1975, under the chairmanship of Prof. J. Ramachandran, Principal, Presidency College, Madras, the author began with the observation that the rate of urbanisation in India as worked out in the 1971 census is not alarming as it is only 19.87 per cent of the total population. While this is low compared to other countries, India's urban population exceeds the total populations of many western countries. Even though Tamil Nadu is one of the five most industrialized states in India and Madras (2.47 million population) is a class I city according to census classification, it is not numbered among the 25 largest cities of the world. In the two decades 1951-71, the number of class I towns in Tamil Nadu has increased from 8 to 17 and during the latter decennium has registered the highest increase (3.59) in the percentage of urban population to total population. The phenomenon of migration from rural areas to urban centres evidences an interesting pattern as the first shift appears to be to the smaller towns and thereafter to the larger cities. This intra-urban migration deserves investigation as also the possible urban-rural migration and the low rates of increase of class VI towns. The inflow of migrants leads to increasing pressure on housing, civic amenities and welfare services. If further migration to class I towns is to be discouraged policy measures would include formation of satellite towns at a distance of 32 km. from the class I Centre, no new industries to be established in the vicinity and employment in organised sector to be restricted to persons with atleast a three year domicile. These measures for restricting urban growth may

restrain the increase caused by migration in the number of urban poor. In this context the author pointed out that there was no specific definition of poverty to suit Indian conditions, although there were some norms for quantifying poverty, for instance the Dandekar - Rath nutritional level of 2,200 calories. But this is only one of the three essential requirements, the other two being shelter and clothing. The emphasis on economic growth so far has not made the desired impact on the extent of poverty. At present the tendency among the poor seems to be to divert resources to the purchase of status symbols such as watches and transistors. The programme for activation of human resources with its suggestions for recognising patterns of production outlined in "Framework of a Plan to abolish poverty" by Dr. C. T. Kurien (Madras Development Seminar, January 1973) was referred to. Such programmes could be partially self financing as in the instance of craft training in the Leper Rehabilitation Centres, established by the Tamil Nadu Government. On the basis of the suggestions made in the paper and the experience gained in the Leprosy Centres, pilot projects could be initiated in a selected urban and rural centre. The slums being visible symbols of urban poverty, the definitions of a slum were cited and conditions therein referred to. The works programme of the Tamil Nadu Slum Clearance Board envisages the removal of all slums in Madras by 1977. A significant fact is that 53.13 per cent of the slums have come up during the last 10 years and by the criterion of consumption expenditure about 74 per cent of the slum dwellers are above the poverty line. A curious aspect of slum location was that many of them had sprung up on government, Corporation or State Housing Board

sites and it is a moot point whether such establishment of slums on public land would tantamount to trespass and consequent loss to the taxpayer, in view of the high ground value. Low cost housing for special groups like fishermen has to be imaginatively planned to suit their professional requirements.

In the discussion that followed the paper was described as primarily a careful compilation of trends in urban growth rather than a review of the dimensions of urban poverty, its causes and possible corrective remedies. Though the concept of poverty has been with us for a long time, the new perspective is the attempts at quantification which are not final either in terms of numbers or methodology. Such data as has been gathered, however, forms a sufficient base for designing of programmes and policies for its eradication. A multidimensional approach to the measurement of poverty is necessary and is reflected, although not explicitly, in the minimum needs programme of the Union Planning Commission which includes food, shelter and clothing as well as drinking water. Incidentally the minimum needs criteria add up to a far higher percentage of poor than the single criterion of the nutritional norm. Further, in view of the urgency of this human problem, too much time should not be devoted to problems of identification, measurement etc. The roots of urban poverty lie in the transference of rural poverty by migration and overt unemployment. The comparable rural phenomenon is under employment and low wages though urban unemployment is a more serious problem, in sharp contrast to the high wages paid to organised labour.

Possible solutions for urban poverty include structural changes in control and ownership of resources and in patterns of

production and distribution. Housing for employees should be the responsibility of the industries concerned in Class I towns. Investigations on urban poverty have been given an excellent start with the "Socio-economic survey of the Madras Slums" by the Tamil Nadu Slum Clearance Board. An opinion was expressed that the criteria of choice for quantifying poverty should be those of the minimum needs concept or levels of consumption expenditure which would obviate hunger. The suggested changes in patterns of ownership and production are in practice not as complete a remedy as they seem to be. For instance, land reform and co-operative farming have not been very successful.

In the ultimate analysis the answer to poverty is a considerable increase in production, an essential element being a high growth rate. The Indian economy cannot be described as having the requisite rates. It is also possible that our levels of urbanisation are not high enough to sustain the tempo of economic activity. It was further pointed out that prohibiting development of further industries in I class towns may be a diseconomy if it went against the principle of location of industries. Mention was made of the State Perspective Plan objective of doubling the per capita income so that purchasing power would be available to purchase the basket of goods to live above the poverty line. An awkward aspect of urban poverty in India is the relatively high cost of transport. Subsidised housing has its attractions for the unemployed. In as much as urban poverty is enhanced by migration from rural areas in search of better living, it can be described as an import problem. It is thought that 25 to 33 per cent of the economy is mainly dependent on black money and its immobilisation has materially affected industries like construction and films.

Commenting on the causes for urban poverty it was pointed out that urbanisation and unemployment were the main causes. Incidentally a survey of unemployment in four Indian cities had revealed that the percentage of unemployment in Madras city was comparatively higher. Consumption patterns of various classes of poor, particularly from the angle of caloric studies, was necessary.

It was recalled that Dr. C. T. Kurien in his paper had postulated "a large scale mobilisation of political will in support of the anti-poverty programme with full awareness of its implications." It was felt that urbanisation was an irreversible process and any restriction could be only marginal in view of the poverty prevailing in rural areas. Reducing

urbanisation as a measure of controlling urban poverty did not appear to be practical. A distinction was drawn between urban and rural poverty, the former being sociological with spending patterns dictated by nonessential requirements while rural poverty is due to economic reasons such as seasonal employment and low wages. A selective attack on poverty had to be made through education and mass media.

The burden of poverty has been a long standing phenomenon in India and is the core problem for the nations planners and policy makers. An effective attack requires quick diagnostic study of the causes, a multi-dimensional methodology for its measurement and resolute and consistent policies for its eradication

Higher Education: Development Perspectives*

PART II

I now turn to deal with some of these demands.

Development :

The first demand that we face is that of development.

Development is holistic. It is individual and social, it is political, economic, cultural and moral, it is rural and urban it is local, national, regional and international. It is multifaceted and myriad phased and one of our problems is that the boundary lines of our university disciplines do not coincide with or correspond to any facet of development. There are no economic problems, no sociological problems, no more than there are chemical or physical problems of development. We have problems of poverty, unemployment, water scarcity, food grains production and procurement, trade imbalance, regional backwardness, energy shortage and misuse, social discrimination, individual and class exploitation. There are the problems of development. Development so conceived calls for, its diagnostic, its policy formulation and programme execution, the combined skills of all our natural, human and social science disciplines, going beyond multi-disciplinarity, towards interdisciplinarity. The nurturing of multidisciplinary studies and inter-disciplinary cells is one of the urgent calls that development is making on our universities. Ultimately it will mean replacing the existing natural,

human and social sciences disciplines by new specialisms which correspond to our real life.

Underdevelopment is historic. The massive heritage of poverty, hunger, under nourishment and malnutrition, the feeble agricultural industry and poor, non-existent manufactures, with an undeveloped and maldeveloped infrastructure of communication, health, education, energy, water use and availability, rigid and out work but exploitative social institutions and organisations with which the country's development programme started its independence must be kept to the fore in all planning for development. The development starting point is this englobing underdevelopment which was built up gradually but relentlessly over the past 3 centuries. I have a feeling that not enough attention has been paid to this historic heritage of underdevelopment, which in part accounts for the unrealism and irrationalism of our development plans. Here there is a call for the universities to trace and track in as precise a manner as possible the contours of our underdevelopment by sector, by region, by locality, by class and by group, so that a firm basis for development programming can emerge.

Development and underdevelopment are humanistic. They of course involve mea-

*Extracts from Part II of the Keynote Address by Dr. Malcolm S. Adiseshiah to the Golden Jubilee Celebration of the Association of Indian Universities at Vigyan Bhavan, New Delhi on Saturday, 23 March 1975. Extracts from Part I were published in the last issue—August 1975.

surements and models, abstractions and attempted quantifications, and quite liberal use of statistics, which I too have been indulging in. They call for separate analysis of the great problems facing us, of population, renewable and non-renewable resources, the political frame work, social values and socialising institutions, peaceful living and the fight for the rights of the exploited and disinherited. But behind it all is the human person who is the cause and consequence of underdevelopment and the subject and object of all development. It is this human face which keeps peering at all of us involved in promoting development and battling underdevelopment, which is the crucible through which all must pass. In him are all the separate problems, the awesome models, the confounding statistics united. That is why development and underdevelopment call for rigorous thought and reflection about the theoretical and practical means—strategies and policies—, about the specific condition of each group and every person in it—expressed in programmes and projects and about their being synthesized in man—his hopes, his aspirations, his weal and welfare. This kind of rigorous reflection on the condition of our times and the reasons for the welfare or illfare of our people is the responsibility of the universities, and it is in the discharge of this intellectual effort, that they will, true to their calling as innovators, originators, modifiers and transmitters of ideas, act as the pivot for the contribution to and distribution of cultural forms and directions which is Man's conscience and self expression.

Strategies :

Development strategies have in the past been identified with a certain rate of growth of the Gross National Product. That was the strategy of the First United

Nations Development Decade that also was our planning strategy until we began talking about growth with social justice. In our draft Fifth Plan, we have gone further and have proposed the transfer of resources from the top decile to the bottom 3 deciles of society, as part of the poverty eradication strategy. The problem here is that, within the existing institutions, this objective of transferring resources from the top to the bottom deciles will either be defeated through inflation, tax evasion, and private profit maximisation or will become self satisfying rhetoric, acting as a substitute for some hard decisions and action. It is no use allowing incomes to be earned without limit, and through whatever means to be freely generated, and then expect that their disposition and ownership can be controlled. The strategy for poverty eradication calls for the creation of new institutions and organisations which can ensure an equitable distribution of the generated incomes and wealth. One such new institution is the organisation of landless agricultural labourers who form the major labour force in the country. Another is the organisational development of a new system of rewards and incentives which would replace the hidden hand and the market system which assures to him that hath that more will be given. The savings banks for labourers started in one district, the collective ownership of land, tractor and inputs operated in some others are further instances of such small and large efforts. The development strategy for our major objective of removal of poverty is the creation of the kind of new organisations and institutions that spreads to all in the community the fruits of development, rather than the monolithic instrumentality of GNP growth. We do not know what these institutions and organisations should be, how they are to be worked, manned and run and this is a task, in which some pilot work needs to be done, the kind of

operational field work for which higher educational institutions are uniquely fitted.

A second development strategy is the emerging concept of gross domestic capital formation, which is both physical and human. So far, our treatment of capital formation has referred to physical quantities, to stocks of equipment on and with which labour works and to a fund embodied in different forms with property rights attached to them. But a country's gross domestic capital formation must include human capital formation, which is a function of its demographic trend, its infant nutrition, health facilities and survival rate, its education and training system, its scientific and development research, its housing and drinking water provisions. It is not necessary to pursue the fruitless endeavour as to which is more important—the physical inventories or the human capital resources, or to attempt to separate and identify what is the return on each. This can be done if we had an adequate data base and more refined tools than is available under the various benefit-cost analysis systems. What is essential is to work on the cost effectiveness of the various and varying means of gross human capital formation and subsequently of its investment and use. This is a task to which the universities should address themselves, because human capital formation in our country and in the third world generally is the one strategy which faces no constraints, except those which are of our own making, to which I have made reference earlier. It is also an insistent call on the universities because they are an essential part of this process and strategy of gross capital formation.

A third facet of the development strategy is the role of science and technology which till recently was ignored in deve-

lopment planning. It is no accident that it was not until our Fifth Five Year Plan that the first ever Science and Technology Plan was produced and given a place in our development strategy. Till then Science and Technology was generally ignored by the development planner, because it came under his catch all manner of uncertainty and accident, and/or was used to explain certain limited events, such as agricultural expansion misnamed the green revolution, or the high productivity capital in some, unfortunately in a minority, of our manufacturing enterprises, or a nuclear implosion whose development use is one of our major preoccupations. The Science and Technology Plan that we have produced for the Fifth Plan is the beginning of the realisation that for us technology is no accident. It is one of the new institutions which can be used in the battle against underdevelopment and for that quantum jump which development in this country demands. But this institutionalisation of Science and Technology in the development process means the implantation of science as a native plant in our society, and the considered use of technology, as the means of achieving the breakthroughs which physical and social engineering calls for. There is from this point of view one rather large gap in our current conception of the Science and Technology sub sectoral plan—and that is, that it is limited to the physical, natural, engineering and agricultural Sciences and Technology, leaving an acting void in the conjunctural use of the human, social and behavioural Sciences and their technologies. This is one grave lacuna in our institutionalisation of Science and Technology, which our universities and institutions of higher education can help us fill.

There are two more aspects of development strategy to which I wish to refer.

Development strategy is a means of ensuring consistency between the policies and policy instruments which make up a plan and from which programmes and projects flow. This consistency does not mean harmony between policies. The policy of import substitution of 200 MW generators, for instance, might come into conflict with the policy to arrest a production decline in the continuous process industries because they need to import stand-by generators, in the kind of power famine years that we have been and are, passing through. In some areas again, national integration may involve local disintegration, as in the case of powerloom textiles from one State killing off the handloom weaving industry in another State of the Union. Particular policies can be in conflict with each other and it is then necessary to recognise such conflicts and use strategies based on the trade off relations between them that have to be worked out. But for this there should be a policy for each separate objective. No one policy or policy instrument can at the same time secure eradication of poverty, mass production of wage goods, expand the quantum of exports and improve our terms of trade and balance of payments. And it is the function of strategy to hold together in a consistent national frame these separate and sometimes conflicting policies. Here is an area where more light is needed—the policies required by our development objectives, their conflicts and trade off relations and the resulting strategy alternatives facing the country—an area calling for hard, tiresome and objective study by the university community.

Development strategy must also come to terms with the centralising tendency of all non-socialist development planning and the functional devolution and

decentralisation programming which the fight against underdevelopment imposes. Here our neighbour China is working to a strategic model under which policies are established centrally but programmes are planned and executed at the level of each commune, covering not only agricultural production of food and cash crops, but also steel and power generation, and scientific and technical research establishments. In development strategy, the core sector should be identified. The sector will vary from country to country in accordance with its political and human resource endowments, but will also in all cases include what I have termed earlier gross domestic capital formation. But the programming of this core sector and its execution should be the responsibility of the local functional units in a vast country like ours. Work needs to be done in our higher education establishments on identifying the core sector and in devising decentralised programming methods and execution techniques for pushing forward development and pushing back underdevelopment at the critical local points.

Our Perspectives :

On this basis is it possible to look into India in the 80s and 90s?

On the demographic front, we would be very near the point of having a second India living with us, that is a second 500 million men, women and children, most of whom are already born, inhabiting this vast land. One question that arises is : what kind of heritage we of the first India leave for the second India in the political, economic, social, cultural and moral realms and how can we improve this heritage in the short time that is available to us? On this rather serious question, which is not really an essay on futurology, but a form of reflecting over the state of

our coming generations, not much thinking is being done in the country and in our universities.

On the economic front, unless we develop the kind of institutions and organisations that I have referred to earlier there will continue to be mass poverty. With our present institutions—productional and distributional—we will be ending the nineties with somewhere between 25 and 30 per cent of our people still living below the nutritional and minimum needs poverty line. Given the demographic profile of the country at that time, the absolute numbers of the poor would be larger than those living in poverty to-day. If agriculture, particularly food grains production grows during the 80's and 90's at an annual average increase of 3 to 3.5 percent, if the production of essential goods, cloth, edible oils, housing materials, energy sugar increases at around 8 per cent a year, and if a working distribution net work ensures that these essential goods are effectively delivered to the poor majority, then the alleviation of poverty in the country would be possible, through institutions which will regulate factor ownership, diffuse economic power and decision making, operate a new system of rewards and incentives, make impossible wasteful and conspicuous consumption and provide the social and cultural frame work for a life of simplicity and sufficiency. In effect, we will be moving towards a period of sufficiency for all, on the basis of an equal sharing of poverty vis-a-vis the affluent economies.

In the political arena, one foreign prognosis is that we will lose our democratic structure, will become a military dictatorship and be embroiled in wars with our neighbours. This is a futuristic foreign fantasy, but it conveys a salutary warning to us. We have very few years in

which to develop a literate citizenry, a task to which every socialist country turns as its first priority, and to make our own the democratic values of sharing poverty, living simply and peacefully. There is here an option for us to choose from between democracy and its social, economic and political roots and some form of authoritarianism and its political, economic and cultural consequences. That choice will also be conditioned by the emerging new structures, of which the New International Economic Order being adumbrated now by the United Nations is one.

This new International Economic Order which, India joining with other third world countries decided last year to usher in, is based on the principles of justice and peace in the relations between India and other nations. The principles of justice involves reducing and ultimately eliminating the yawning and widening economic gap between India and the third world people on the one hand and the affluent people and nations on the other hand. This is not a new demand. India has been making this demand since the founding of the United Nations, which is co-terminous with its own independence. The idea is new because it is the first that has been conceived by the third world for the third world and has been established as a universal responsibility by the community of nations. What gives meaning to this demand in the New International Economic Order is our recognition of the indivisibility of the concept of justice. It must and will apply internationally, that is in the relations between States, because it is being applied intranationally, that is in the relations between the classes of our own State. That is its ultimate sanction. The principle of peace in our relation with our near neighbours and the more distant

ones is again to be based on a system of completely free and mutually reinforcing co-operation, through building and operating a new system of collective economic security, a form of independence within interdependence, which is the logical extension of the concept and operation of the system of non alignment as developed by us during the fifties and sixties.

In the field of education, there will be a renovation and real expansion in the minimum educational skills which primary education or its equivalent in out-of-school/adult education programmes represent. This will then call for diversification of our second level education system—in-school but more heavily out-of-school and some contraction of the quantitative growth of our higher education establishments, so that they may develop into the centres of reflection and excellence as outlined earlier. Here again there is the option facing us, which is to set our hands immediately to restructuring and renovating the system or to continue with the present system and its wastes, internal and international. Our internal wastes in the form of drop-outs and push-outs, the mis and mal education, the unemployed and unemployable are slowly leading to the burning down of the whole system to the point where we may have no option. On the external wastes, we are training the medical personnel needed for some of the most affluent countries in our world and have contributed our share of scientific and computer programming skills for the MIRV missile and moon landing space programmes. On top of all this, we will have to devise a system which can educate twice the number of primary, secondary and university level students within the next 25 years. This cannot be done by simply doubling the number of schools and universities, libraries, laboratories

and teachers. We will never have the resources for it nor the physical availabilities. There will have to be a new pattern, a new system, growing out of what is called non formal education which in the university area calls for a system of open universities. Let us thus make our options clear and act on them while we still have the time.

In making that option, universities have a special and unique role to play. That role begins with putting their own house in order, along lines on which there seems to be general agreement. They will then be part of a system in which their specialised, diversified and irreplaceable talent will be in constant use in the building of a just, peaceful and progressive society. The university system will then enjoy all the institutional and academic autonomy it needs, because through its planning process it will be fully accountable to society which feeds and nourishes it, it will contribute to the enrichment of the entire educational system of the country and be the guardian and proponent of ordered and organised change which is the life blood of development.

On this basis, the cultural perspectives for the 80's and 90's are exciting. The universities will be leaders in the peaceful flowering and development of the arts—the dance, music, drama, painting and sculpture. This fine arts will be an expression of the spirit of the people, embodying in themselves the principles of truth, beauty and goodness because they are based on the grand affirmations of justice and peace. In such a society there will be no backward and forward classes, no religious, ethnic or linguistic majorities and minorities. There will be people—individuals and groups of men, women and children who are the human vision of our future.

A Call :

It is on this vision of the future, of our heritage for the Second India, that I close. That vision calls for our treading now the hard political path of peace and co-operation, the stony economic road of unceasing and ceaseless toil, the soiled social line of justice and some sacrifice particularly on the part of us the elite, and

the dismaying moral route of honesty integrity, compassion and charity. These paths must be trodden by us in pursuance of our past heritage as university men and women, in face of the call of our people for development and a life without poverty, and in the face of our obligations as devotees to truth. Let us together answer that call.

BOOK REVIEW

Small Fishermen in Tamil Nadu

By

C. SELVARAJ

*Published by Sangham Publishers for the
Madras Institute of Development Studies, pp 68—price Rs. 10/-*

Review by Prof. R. RAMANUJAM, M. A.,
D. G. Vaishnav College, Madras.

The fishermen community along the Coromandel Coast form not merely the vulnerable section of the population of Tamil Nadu but one with great potentialities for development of an area of economic activity that will not only solve the dietary deficiencies internally but also promote possibilities of export on a large scale. There is therefore no denying the fact that the Madras Institute of Development Studies has chosen a very apt area for analysis with the aim of studying the effect of modernisation of fishing with the introduction of mechanised boats. In an elaborate preface the Director of the Institute has brought out the difficulties of analysing the specific question taken up for study and has shown that it had only to be a beginning in the study of the economic and sociological aspects of this community since modernisation had not produced enough impact for an evaluation.

The work appears to be a pointer to the need for a deeper study of this community for initiating socio-economic measures with an integrated approach to raise their level of living in a comprehensive sense. The educational level, the demographic breakdown, conditions

of their avocations, the health standards and environmental deficiencies have all been touched upon.

The methodology adopted is quite suited for the study. But the intensity of field work, through personal contact has been minimised due perhaps to constraints of time and manpower. If the districtwise study had been further cross checked by a few visits the factual study would have helped a more detailed building up of the structural, familial and other sociological aspects of this community providing material for positive and durable recommendations to strengthen the coastal population of this State.

Mr. C. Selvaraj, who had worked out the results of the study in this publication with the valuable data has done a good job in pin-pointing attention on all aspects. Mention must be made of the methodology he has adopted (pages 23-24) for working out the final findings of the research work. This is the first step in the analysis of sector-wise study of poverty in India.

R. RAMANUJAM.

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