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EDITORIAL—SOME HIGHLIGHTS

I. General Economic Scene

State:

Fiscal: Lok Sabha at its August session approved for the State supplementary demands of Rs. 12.55 crores (Rs. 8.59 crores on Revenue and Rs. 3.95 crores on capital accounts). The demand covered Rs. 10.19 crores for sinking 6,300 deep bore-wells in the drought affected areas, Rs. 1.09 as share capital in the Tamil Nadu Sugar Corporation, Rs. one crore for fair weather gravelled roads to villages and habitations, Rs. 74.51 lakhs for soil conservation schemes in drought affected areas, Rs. 71.23 lakhs as loans to co-operative spinning mills, Rs. 55 lakhs as loans to the Pandiyan and Pallavan Transport Corporations, Rs. 44.16 lakhs for land acquisition of the Salem Steel Project, Rs. 35.75 crores as share capital of the Tamil Nadu Public works Corporation, Rs. 19.97 lakhs for shifting the police training school from Vellore to Madras. The Film Enquiry Committee set up on November 1975 presented its report at the end of July. Its major recommendation is that the current six taxes on the film industry (3 on admission to cinemas, viz. basic entertainment tax, surcharge on ET, additional surcharge on ET) and 3 on the number of shows (basic show tax, surcharge on show tax and additional surcharge on show tax) should be replaced by a consolidated entertainment tax and a consolidated show tax at a lower level than the existing rates. This could be accepted if the various forms of tax evasion, particularly by touring cinemas were corrected. It also recommended the setting up of a State Film Development Corporation to assist the production of low budget films, schemes to develop fresh talent and for the construction of theatres. This last use of the proposed Corporation's finances is of low priority, as the open market is now able to construct all the theatres needed. It has further recommended a licensing system to ensure that the workers and producers in the industry are genuine professionals. The revenue from entertainment taxes in 1974-75 was Rs. 16 crores. The recommendations of the Committee need analysis in terms of the tax revenues that it will produce. As will be noted under the National section, the State loan for Rs. 13.50 crores was fully subscribed with the usual 10 per cent excess on August 24. The loan is to finance irrigation works, industrial development and for re-lending to the State Electricity Board, local bodies and agriculturalists.

Drought and Prices: With the failure of the South West monsoon for the second year running, as pointed out in the last issue of the Bulletin (p 438), 10 of the 15 districts covering 4,131 villages are drought stricken, the most serious being the districts of Ramanathapuram and Tirunelveli. Drought relief operations are being intensified. In Madurai district 1.5 lakh persons are employed on soil conservation works on 10,188 acres in 66 drought hit villages. In Tirunelveli district, Rs. 72 lakhs are being spent on minor irrigation works providing 2.5 lakhs mandays of employment, irrigating 4,059 acres and bringing in a new ayacut of 1,175 acres. In Dharmapuri, a special agricultural engineering sub-division has been located to investigate and locate areas for the construction of 86 percolation tanks and ponds, as a start. The ponds will serve the purpose of water spreading and recharging ground water to stabilise supply from the wells. Percolation tanks are a major means of conserving moisture in the dry rainfed tracts of the district and will be a permanent asset to it. The government allotted an additional Rs. one crore to Tirunelveli in late August to ensure drinking water in the water starved villages. To meet the scarcity of cattle fodder in the district, hay is being transported from other districts with the help of private businessmen in Madras, and which is being sold through 20 sales depots in Panchayat Union headquarters at 35 to 40 paise per kilo in place of the market price of Re. one. In Ramanathapuram, out of Rs. 2.5 crores, Rs. 1.77 crores have been spent by mid August on sinking deep bore-wells (981 completed out of 470 sanctioned) and other irrigation and tanks preparation programme. Also formation and gravelling of 1,951.18 KM of roads have been undertaken in 1,004 drought affected villages. The 1,000 KMs roads completed have cost Rs. 117 lakhs and provided 18.8 lakh mandays employment. Ramanathapurm also lost 2,300 acres of good cultivable land as a result of a sand storm. This land situated in Sethur is now being reclaimed on the basis of an integrated clearance scheme involving use of tractors, engineers and water specialists for reclaiming the land and the 134 wells and irrigation channels which have been filled with sand. Also a programme of afforestation is being undertaken to prevent future such calamities. The tree planting programme is being undertaken in all districts, particularly those hit by drought. The Gandhi Smarak Nidhi is active in these areas in developing Gramdan villages and hamlets, distributing land surrendered by land lords and providing employment through cottage industries. A Union government team is visiting the State again to assess the further drought relief needed over and above the Rs. 7.5 crores made available to the State (see Vol VI p 304). An equally serious problem is the low water level in Mettur which threatened agricultural operations in Thanjavur district. On August 21 the water level in Mettur was 37.20 feet against the full level of 120 feet. The inflow was 2,300 cusecs against the discharge of 10,000 cusecs. The irrigation authorities drew only 10,000 cusecs on alternate days to feed the Thanjavur farmers and at this rate the water supply would last only 3 or 4 days even with the turn system in vogue. In Mercara, the main catchment area for the Cauvery, the rainfall between June 1 to August which ought to be 212 CM was only 130 CM and this has been the main cause for the low water level in Mettur. In this situation, the State government secured the help of

Karnataka which released four times in August a total of 25 tmc feet of water from Krishnaraya Sagar reservoir, and has promised to further help the State to save the Thanjavur samba production from serious failure. The problem is that low rainfall has also affected Karnataka's farming operations, so that it is a question of developing a strategy to benefit the crops in both States. A long term solution is also under consideration —that of diverting the surplus waters of the West flowing Kerala river, Gheriyar, which will provide the water needed by Ramanathapuram and Tirunelveli. The technical feasibility study by a committee of 5, two from each State, (Tamil Nadu and Kerala), with a Union official as Chairman has just begun. This kind of action should have been taken years ago and certainly not in the teeth of a drought situation. The South West monsoon which failed in the State areas where the irrigation and power reservoirs are locatad has been active in North Arcot and Madras City, whose rains are usually in October and November during the North East monsoon. The rains in North Arcot has led the farmers in the district to begin samba paddy operations and has revived the groundnut crop in the district. Tiruvannamalai, Chengam, Polur, Cheyyar, Gudiyatham and Tirupathur which suffered from drought, during the last 2 years in all 3 seasons—Samba, Navarai and Swarnawari—, are now active in all forms of farming operations. Rice availability in the rural and urban areas is assured by government action. In Kanyakumari district, 354 co-operative societies and 54 Civil Supplies Corporation model shops provide each card holder with 30 kg. of rice in 4 weekly instalments. Now with the earning power of the family reduced by the drought, the daily drawing of rations should be allowed. Similarly in Thanjavur district, where the low Mettur level sent up prices, government is making available rice in the open market at low prices. The Union government has assured the State government that even if there is reduced paddy production in the State this year, the State's needs will be fully met from the Union foodgrain stock of 17 million tonnes. This is more a public relations and psychological assurance to prevent the creation of artificial scarcity conditions because at the same time the State government has offered to the Union government pool in addition to the one lakh tonne already accepted (see Vol VI pp 253 and 320), 1.9 lakh tonnes of kuruvai rice and 4.64 lakh tonnes of samba rice. Negotiations are under way on the terms at which this stock is to be accepted. On prices in general CSO reports that in January and February the index number of consumer prices continued to fall from 304 in December to 294 in January and 286 in February. Rural prices as marked by index number of price for agricultural labourers also fell but were at higher levels than the general index at 310 in January, 301 in February and only in March falling to the general index February level at 282. The index of consumer prices for urban non-manual employees shows a closing of the gap between Madras and other mofussil centres. For December 1975 both Madras and Tiruchy record 307 while Madurai was 290.

Power: The power situation in the State in August continued with the cut reported in the last issue (p 439). Towards the end of August, Andhra Pradesh provided this State with 70 MW

as there was a large fall in the agricultural load because the farmers in Andhra Pradesh were not operating their pumpsets following heavy and widespread rains. This power provision to Tamil Nadu was in addition to the 45 MW made available to Karnataka by the Andhra Electricity system, where the thermal stations at Kothagudam, Ramagudem and Nellore and the hydel stations at upper and lower Sileru are generating at full capacity. Within Tamil Nadu, Neyveli has offered to supply an additional 260 million units (above the 2,100 million units currently supplied) but at a 3 paise per unit higher price to compensate the Corporation's loss due to reduced production in its chemical plant. The South generally—except for Andhra Pradesh—is facing a serious position in regard to power. With the poor storage position in Linganamakki reservoir (66 per cent of its capacity) further steep power cuts for high tension bulk controlled are in the offing in Karnataka. Karnataka and Kerala are negotiating the setting up of a joint thermal plant of 900 MW to 1,000 MW capacity to meet the minimum power needs of the two States which are 200 MW for Kerala and 700 MW for Karnataka. The regional approach to power development in the South is now gaining more adherents as not only Tamil Nadu but Kerala and Karnataka are now experiencing droughts. The Southern Regional Electricity Board meeting in Hyderabad on August 20, continued the technical detailing of the regional approach, quantifying the surpluses and preparing contingency plans to meet the needs of deficit States. Here again little can be done if solutions of this kind which demand a long lead time are thought of only when the crisis is already on. It is hoped that both on water and power, the four States are firmly committed to a regional approach and regional solution.

In the country as a whole, the power situation was normal except in West Bengal, the North Eastern region and as noted above in Karnataka and Tamil Nadu. The power deficit for the country in August was 11.55 million KWH per day over the total demand of 231.74 million KWH per day. The total power generation for July was 7,307 million units which was a 20 per cent increase over the July 1975 generation. Between April and July, power generation also increased by 20 per cent compared to the corresponding 1975 months at 29,208 million units. The overall deficit referred to arises from the shortages in the 5 States and the need for increasing the plan allocation for power in these States is obvious. For the current year, the plan allocation is Rs. 1,453 crores and in addition to the further increase in the allocation in the remaining two years of the plan, there is need to ensure full utilisation of existing capacity, reduction of transmission and distribution losses and improvement in the maintenance of the thermal and hydel stations. Also the need to devise unit trains movement of coal to the South and the use of gas turbine driven generators as one means of economising on coal needs to be adopted in the country. The full cost of gas tubes is high but that can be more than compensated by their low capital operation and maintenance cost.

Cauvery Agreement : As a consequence of the meeting of the Chief Minister of Karnataka, Governor of Tamil Nadu and the irrigation and Electricity ministers of Kerala presided over by the Union Minister of Food and Agriculture on August 24

and 25, the outlines of a solution for the inter-State dispute on Cauvery waters were arrived at in the following terms: (a) there was first agreement on the actual utilization of waters by the 3 States on which the February 1975 talks (see Vol V pp 197-198) broke down. It was agreed that the total Cauvery waters of 671 tmc feet are currently utilised to the extent of 489 tmc feet by Tamil Nadu, 177 tmc feet by Karnataka and 5 tmc feet by Kerala, (b) there is scope for economies in water use and maximum such economies should be made and integrated use of reservoirs to ensure optimum use and equitable distribution of water and protection of existing irrigation areas in normal years, (c) a committee of the representatives of the Union and State governments is constituted immediately to work out the manner of sharing waters in lean years, beginning this year, (d) a Cauvery Valley Authority is constituted comprising one irrigation engineer from each State and presided over by an irrigation engineer nominated by the Union government. The functions and rules of the Authority are to be drafted by a committee of the secretaries of the 3 States and will be ratified at the next meeting. This is a good and hopeful outcome and might be the means of settling this intractable problem.

Urban Ceiling Land: On August 3, the President issued the Urban Ceiling Act for Tamil Nadu for the six urban agglomerations in the State with their appropriate ceilings on vacant land and regulation of building construction on such land. For Madras the ceiling is 500 sq. metres, Madurai 1,500 sq. metres, Coimbatore 1,500 sq. metres, Salem 1,500 sq. metres, Tirunelveli 2,500 sq. metres and Tiruchirapalli 1,500 sq. metres. The Act requires all who own land in excess of these ceilings to file a statement within 90 days, that no sale, mortgage, gift or lease exceeding 10 years should take place and no building over 300 sq. metres plinth area in Madras and 500 sq. metres in other urban areas is to be constructed on the vacant land. There are a number of issues still to be clarified and in the meanwhile all building and construction activity has once more come to a stand still.

MMDA : The government has set up a working group to draw up an integrated programme for improvement and development of a public mass transport system in Madras city. The problems to be dealt with are measures for restricting and reversing the trend of population growth and traffic within the city, the optimisation of bus transport and the suburban rail system, the development of the necessary road net work and proper combination of road and rail facilities and the financial costs of the whole scheme. The Madras Corporation has, in the meanwhile, launched a scheme to renew the major portion of the water supply sub-mains and feeder mains to a length of 34 KMS in 24 roads at a cost of Rs. 90 lakhs.

Railways, Tourism and Shipping: The Southern Railways introduced from mid August the Solid State Centralized Traffic Control System—the first indigenous make by ITI in the country—for the control of the operation of trains between Tambaram and Chingleput. It will speed up traffic and make possible better utilisation of track capacity. The system already operates between Madras Egmore and Tambaram since 1969 and the present ITI make is more modern, involving faster speed of transmission and reception of signals. In addition to the electrifi-

cation of the Madras-Vijayawada line now under way as noted in the last issue (pp 440-441), the Railway Ministry reports that it has requested the Planning Commission for funds to undertake the equally urgent electrification of the Madras-Trivellore line. This would speed the movement of goods and persons on this heavily travelled line. On the tourism front, the government announced in early August plans to develop the temple island of Rameswaram into a 'beach oriented holiday resort. On the island's coconut groves and coral reef, a marine park as well as swimming, surf riding, boating and trekking facilities are to be developed. Mamallapuram is to have its monuments further improved and a total complex is to be developed in addition to the cottages now opened. To cater to the needs of middle income groups, tourist bungalows are being established at Madurai, Kodaikanal, Tiruchendur, Kanyakumari, Yercaud and Ooty. For youth tourists, a youth hostel has been established at Madras, to be followed by similar youth residences in all district headquarters. The State is thus now ready to attract a growing number of tourists who can also visit Sri Lanka. In August the first container ship came to Madras Port, reducing the ships' stay time 24 to 6 hours. There will now be container ships coming to Madras twice a month.

Tamil Nadu Debt Relief Act: On July 29, the Tamil Nadu Debt Relief Act was promulgated under which all debts incurred by landless agricultural labourers and rural artisans whose annual household income does not exceed Rs. 2,400 and by small farmers were completely liquidated. This replace the moratorium on debts granted earlier by legislation (see Vol VI pp 126 and 257). The Act enjoins creditors to return the pledged properties to the debtors. It is important that alternative arrangements be made speedily to provide rural households with credit facilities through co-operative societies, SFDAs and MFALs and through the starting of Rural Banks. For the small farmer and artisan, this Act removes 60 per cent of their sources of credit and this must be replaced.

Welfare: In August, a Constitution amendment was introduced to arm the President with powers to increase and improve the Scheduled Tribes programme, expressing the commitment of the government to this sector of society. On the basis of surveys and plans being developed by the relevant districts, the Tamil Nadu Tribal Development Authority has formulated a five year Rs. 5.53 crore plan for the improvement of the living levels of the 3.5 lakh tribal people living in Yercaud, Kolli Hills, Aranuthumalai, Pachamalai, Kalrayan Hills, Javadhi Hills and Sitteri Hills. For this year Rs. 80 lakhs has been allotted and for 1977-78 Rs. 170 lakhs are to be spent on laying roads, residential type of schools, agriculture, animal husbandry, forestry, co-operatives, marketing societies, minor irrigation and small and village industries. The 27,000 tribal people living in Kalrayan Hills are bonded to jagirdars, who claim that the hill belongs to them. The people are heavily indebted to them and usurious money lenders, the indebtedness amounting to Rs. one crore, of which only 1/4 - 1/5 was actually originally loaned to them. In this inaccessible area, the first task is to lay roads for a distance of 60 KMs at a cost of Rs. 60 lakhs to be extended to 120 KM at a cost of Rs. 1.5 crores. Rs. 32 lakhs is provided for credit facilities, starting with Rs. 10 lakhs this year. Other preventive meas-

ures include the prohibition of the felling of eucalyptus, sandal wood and mayobalm trees. The survey reports that the indebted tribal person is made to sell his jack fruit for Rs. 1.25 and a bag of mayobalm for Rs. 5 to the money lenders, who sell them in the market for Rs. 7 and Rs. 75 respectively. Hence in addition to implementing the Debt Relief Act, the MInimum Wage Act and the abolition of Bonded Labour Act (see Vol VI pp 257 and 307), a second priority is to organise large size multi-purpose co-operative societies, to bring the people in the nine areas into the societies, advance membership loans to them and market their products. The State government is meeting 75 per cent of the total cost of the programme and the Union government 25 per cent. This is an urgent programme for one of the most neglected and exploited sections of society and the action must be planned on a firm factual basis and executed by committed personnel.

National:

Fifth Plan and Budget: The Planning Commission at a meeting in early August reviewed the outlay and targets for the last 2 years of the Plan period. The outlays will be around Rs. 20,000 crores but the targets will be lower than those set forth in the Draft Outline because of the price rises that have occurred since. One means of raising additional resources that is being explored is raising the statutary liquidity ratio of commercial banks from the present 33 per cent to a possible 35 per cent, which will enable the banks to participate further in the loan programme of the State and Union governments. In December 1974, the statutory holdings of Union government securities in employees provident fund was raised from 25 to 45 per cent. The Planning Commission needs another Rs. 2,000 crores over and above the Rs. 20,000 referred to earlier and the government was exploring the possibility of finding this through increasing the statutory limit of the liquidity ratio. The RBI action on this is referred to in the next section. Another proposal under debate is the launching of a compulsory deposit scheme in the rural areas to mop up the rural surplus that is estimated at Rs. 2,000 crores. On both the RBI has some questions. First an increase in the Union government holdings will reduce the quantum of credit available to industry: second the precise extent of the rural surplus is anybody's guess and needs more careful study. There is no doubt that the 17 million tonnes foodgrain stock is straining government and bank resources. But this may be a short term phenomenon. But all this means that the resource mobilization effort for the balance of the plan period should not be relaxed. The Finance Minister also presented the first supplementary demand to the Lok Sabha in August involving an additional expenditure of Rs. 244.18 crores (Rs. 96.55 crores on revenue, Rs. 123.16 crores on on capital account and Rs. 24.47 crores for loans and advances disbursement). As the decision on the latest cabinet report on Salem has not been taken, the Rs. 3 crores allocated in the April budget (see Vol VI p 215) has not been increased, and Rs. 123.25 crores out of the total Rs. 132.96 crores are for non-plan expenditure (Rs. 60 crores to offset the price reduction of phosphatic fertilisers, Rs. 39.18 crores payments to sick textile mill owners, Rs. 7.29 crores for acquiring IISCO shares etc.). The net result is to increase the estimated budgetted deficit for 1976-77 by Rs. 132.96 crores to Rs. 452.96 crores.

All the 13 State loans were fully subscribed on the day they were opened—August 24—to the notified amount of Rs. 171.50 crores, which after repayment of the maturing 1976 loan of Rs. 163.48 crores and the addition of the usual 10 per cent excess, will leave with the States net borrowing of Rs. 85 crores.

Prices and Anti-inflation : Price in July maintained their rising trend as noted in the last issue (pp 441-442), the index number of wholesale prices registering 306.8 for the week ending July 31 as compared to 304.7 at the beginning of the month (the week ending July 3), and 309.8 at August 2 of last year. The price of rice rose during the month by over 3 per cent (10 points), liquor and tobacco by 2 per cent (6 points) and cotton manufactures by over one per cent (3.5 points) and iron and steel manufactures by 0.5 per cent (1.4 points). The Economic Times general retail price index also records a one per cent rise in July over June when the rise was 2.1 per cent and up by 2.2 per cent compared to July 1975. Food prices rose by 1.3 per cent, oils and fats by 20 per cent, pulses by 1.5 per cent, with only condiments, spices, fruits and vegetables declining by 9.7 and 4.6 per cent. The government continued its emergency action to reduce prices. It separated the Department of Civil Supplies from the Ministry of Industrial Development and created a new Ministry of Civil Supplies and Co-operation on August 8 to ensure a continuous watch over prices of essential commodities and keep the public distribution system in proper shape. An annual plan for edible oils has been developed, 10,000 tonnes of groundnut oil has been imported from Sudan and STC contracted for the import of 1.26 lakh tonnes of edible oil. Vanaspathi manufacturers responded to the government directive and agreed to reduce the price from Rs. 145 for 16.5 kg. to Rs. 130. Also the government took preemptive action to ensure that essential commodities like food grains, edible oils and sugar were available at reasonable prices during the September festival season. To improve the availability and stop the increase in cotton prices, the government contracted to import 2,25,425 bales of cotton from Sudan, Egypt, US, Tanzania, Mexico, Afghanistan, Turkey, Iran, Greece and USSR. Textile mills cut cloth prices, those of long cloth, poplin etc. Government also increased its release of sugar as a result of which its price fell in August. In addition to these measures to control and cut back prices of particular commodities, RBI raised the cash reserve to be maintained by scheduled banks from 4 per cent to 5 per cent of the bank's total demand and time liabilities as from September 4, as a means of regulating the lendable resources of the banks. This means that the minimum cost and liquidity requirements of banks is raised from 37 to 38 per cent of demand and time liabilities from September 4. The banks are also requested to reduce their indebtedness to the Reserve Bank to the maximum possible both on food and non-food credit bases. As of August 13, RBI points out that the money supply with the public increased by 7.7 per cent compared to the increase of 4.6 per cent at that time last year. Bank credit this year has increased by Rs. 864 crores compared to last year's decrease of Rs. 34 crores at this time. The trends are disturbing. Apart from the increase in food credit which in the wake of the bumper harvest is understandable, non-food credit increased Rs. 205 crores this year against last year's decline of Rs. 85 crores, also the liquidity in the money market has increased due to the

fast growth of scheduled banks deposits by 10.9 per cent (Rs. 1,528 crores) compared to last year's increase of 8.3 per cent (Rs. 980 crores). Hence the need for all round restraint in credit and money supply. One proposal under study is for the large foreign exchange reserves to be in part converted into gold by the government, which could be sold in the rural areas as a means of mopping up rural savings. But this would be against the policy aim of getting people away from the gold attachment habit. But selective credit control is to continue in the busy season and there will be no cut in the Bank rate. The case for selective relaxation of credit to industry requires further specific studies. For the present the credit guidelines call on banks to keep a careful watch on the accounts of their borrowers, to examine their annual statements to review their performance and assess their credit needs, to see if the production plan concerned is realistic, its underlying assumptions reasonable, and the operational trends and financial viability satisfactory. On a longer term basis, the price line can be held down only through increase in the supply of goods in most demand and so the action being planned by government to help maximise production in paper, cement, textiles, manmade fibre, tyres and tubes, sugar and jute is the necessary condition for achieving price stabilisation.

Industrial Growth: The index of Industrial Production averaged 131.4 during January-May 1976 (base year 1970 $=$100), showing in increase of 11.8 per cent over the first five months of 1975. Given the power availability, increasing of capacities, decline in labour problems, larger plan outlay and increase for capacity use, it is estimated that 1976 may record a 14–15 per cent increase in industrial growth. All indications are that this year will see a record increase in industry with the public sector taking the lead, as noted in past issues of the Bulletin and in the next section. Besides the Development Commissioner of Small Scale Industries reports that the 1975-76 growth rate for the small scale sector was 13 per cent. On some goods like leather, the decline in the production of foot-wear in the organised sector is because of the increased offtake of the substitute items like PVC foot-wear and leather foot-wear produced by the small scale sector. There is however need for watching carefully the production trends in individual items and stimulate any with a tendency to decline. There is also the increase in the production of major inputs, coal and lignite at 102.7 million tonnes (12.1 per cent increase), saleable steel at 5.8 million tonnes (17.9 per cent increase) and electricity generation (13 per cent) plus the increased production of copper, aluminium, cement, commercial vehicles, machine tools, scooters, railway wagons and industrial machinery. The two problems that need watching are the need to create new capacity and new industries without which the public sector industries cannot keep up their growth (their order books are already showing a decline), and the need to counter the technological obsolescence of our established industries, notably textiles and jute. From that point of view, the higher allocation in the current year's plan for investment in industry and minerals (Rs.2,185.3 crores vrs Rs. 1,644 crores in 1975-76) and the R and D allocation of Rs. 50 lakhs of the jute development council are means of ensuring long term industrial growth trends.

Public Sector Performance: Public Sector units under the Ministry of Industrial Development continue to maintain a rising trend in production during April-June of this year. 4 of the 9 units exceeded their targets for this period, with a total production of Rs. 10.1 crores against the target of Rs. 9.79 crores. For the period the total production target was Rs. 27.6 crores and the performance was Rs. 26.6 crores or 95.3 per cent. The leading firm was Hindustan Photo Films followed by Instrumentation Limited, National Instruments and HPC. Bharat Heavy Plate reports that it will break even this year, its accumulated loss till this year being Rs. 639 lakhs and the loss for last year being Rs. 93 lakhs after providing for depreciation, interest on government loan and on borrowings. For this year, its production target is Rs. 30 crores compared to last year's Rs. 22 crores.

National Production Front:

Steel: As noted in the last issue (pp 443-444), within the public sector steel units profit of 49 crores for 1975-76, Hindustan Steel recorded a high profit of Rs. 44.66 crores. While 2 units (Rourkela and Bhilai) made a profit of over Rs. 28 crores each, Durgapur recorded a loss of Rs. 20.06 crores. The Chairman of SAIL in releasing these figures in the Annual Report, also reports that the total availability of steel in 1975-76 was 6.4 million tonnes, of which 5.8 million tonnes came from the major plants, 4 lakh tonnes from arc furnaces and 2 lakh tonnes from imports. 5.06 lakh tonnes were exported. The report predicts the continuing easy availability of steel this year at an estimated 7.2 million tonnes, the domestic demand being an estimated 6.2 million tonnes and the export target by 1.5 million tonnes. The total production target of saleable steel for this year is 6.465 million tonnes, being an 11.9 per cent increase over last year's production. In the first quarter of this year, production was 1.554 million tonnes of saleable steel which was well above the target. There is a problem that the industry is facing consequent on the decision of the Railways to increase rake loads to between 2,000 and 2,200 tonnes of steel, while stockyards are capable of handling only 1,100 tonnes at a time. This means the steel plants production schedule, in assembling 2,000 tonnes will be upset, with wagon detention and wastage of loco power at the destination. It is necessary for the railway to reduce the rake load instruction. With the production for the first time in the country of High Strength Low Alloy Steels (HSLA) at Bokaro, which is used in heavy military vehicles, agricultural equipment, pipelines, transmission towers, bridges and automobiles, the country will save this year Rs. 5 crores in foreign exchange with 9,000 tonnes produced by Bokaro. The target is to produce 40,000 tonnes by 1980. The HSLA steel technology has been developed by SAIL's Research and Development Organisation in collaboration with the Rourkela Steel Plant. The ordinance taking over IISCO (see last issue p 444) was converted into an Act and passed by the Lok Sabha in August.

Crude: The government reports that during the last 3 years ONGC has increased its production from 3.72 million tonnes to 4.1 million tonnes in Gujarat and from 0.39 million tonnes to 1.12 million tonnes in Assam, with five other locations in Gujarat and one in Assam where further oil has been discovered. Also in the structure between Bombay High and Bassein

another oil discovery has been made. In fact a World Bank study refers to the possibility of another 4 or 5 oil finds along the country's coast line, Bombay and Bassein being only the first phase of the country's ultimate oil production. The study also calls attention to the vast potential of gas which it described as "virtually inexhaustible" and points to the danger of its neglect in the euphoria over the oil discoveries. The gas which is associated gas with crude and free gas from fields which produce only gas with small quantities of condensates should be explored and used as liquifield gas more fully. Between 1965 and 1975 natural gas consumption in the country has grown by 12.5 per cent annually and for this growth to be continued the simple and relatively cheap infrastructures should be planned. A working group has been set up to determine ways of utilising the massive availability of gas associated with Bombay High crude. It is estimated that 3.2 million cubic meters of associate gas would be available here and would meet the country's needs, including those of the petro-chemical industries and will earn a considerable amount of foreign exchange. Bombay High crude is to be refined at the Hindustan Petroleum Corporation and Bharat Refineries Limited which may lead to their integration. The lube base of HPC and the unutilised capacity of BRI would then be used in obtaining the best results from the waxy, low sulphur crude of Bombay High. The Union government is taking over the 26 per cent shares of HPC still with ESSO in order to ensure full control over this important refinery. ONGC is also renegotiating its agreements concerning the drill ships—Haakon Magnus from Norway, Balmahoy, Selvessan from UK, not only to reduce the high fees and rentals paid, but also to use new offshore drilling rigs on a low rent charter basis. Such rigs also can operate in deeper waters with a number of wells, giving full data on depth, sub-sea conditions etc. Similarly it is negotiating the agreement with CFP of France at rates acceptable to the government and CFP on a five year basis. ONGC is going in for a large scale import substitution programme in collaboration with several public sector units to save Rs. 50 crores in a 12 month period. While in 1973-74 it imported 80 per cent of its materials and equipment, its plans are now to replace more than half of these imports by indigenous production and reduce this year's imports to 30 per cent of its needs. Thus BHE, Bharat Pumps, Nuclear Fuels, ECI, Mazgaon docks, and its workshops in the Southern and Western regions are now making drills, rigs, seismic amplifiers and seismic units and the new sophisticated equiqment for the crude industry.

Coal: The increase in coal production (from 88.4 million tonnes in 1974-75 to 99.8 million tonnes in 1975-76) and the current year's target of 108 million tonnes have been and are being achieved not only by the investment of Rs.273.2 crores but also by increased labour productivity. The 32,876 workers identified as surplus are being redeployed on four shifts, working seven days a week and in new projects, increasing average output from 0.66 tonnes of last years to 0.84 tonnes per manshift this year. Also the five marketing zones and 17 regional and branch offices have improved and streamlined Coal India marketing. On the question of reducing the production because of declining demand referred to in Vol VI p 263, it should be noted that perspective demand estimates call for an output of 135 million tonnes by 1978-79, 201 million tonnes by 1980-84, and 339

million tonnes by 1990-91 against a world background of our country producing today only 3.29 per cent of world coal production which is 2,340 million tonnes and 13.55 per cent of Asian coal production which is 568 million tonnes. To meet the above future estimates of coal output worked out by the Fuel policy Committee, coal production will have to increase annually by 11.2 million tonnes in the current plan, and 13.2 million tonnes during the Sixth Plan and 19.9 million tonnes by 1990-91. For this, new pits will have to be sunk at a much more intensive rate than is being done at present in West Bengal and Bihar to match the improved position of coal miners in safety, medical benefit, housing and drinking water. It also calls for improved management of Coal India along lines of the recent Energy Ministry's review conclusions, with a Chairman and a Coal Cadre. For the present, the government has decided to maintain coal prices—as part of its anti-inflationary package.

Aluminium: The Intergated Aluminium Policy introduced in July 1975 (see Vol V p 659) has both increased aluminium production and reduced inventories. Production in April-July increased by 39 per cent compared to that period in 1975 at 6,96,992. Ingot production during August 1975 to July 1976 went upto 2,06,881 tonnes compared to the previous 12 month production of 1,54,491 tonnes EL grade aluminium increased by 50 per cent from 73,024 tonnes to 1,09,311 tonnes, and CG aluminium increased by 20 per cent from 81,467 tonnes to 97,570 tonnes. Unsold stocks which in February stood at 35,000 tonnes declined to 12,000 tonnes in July including 4,000 tonnes for exports. Thus the Plan last year to import 30,000 tonnes of EC grade aluminium has been replaced, due to increased production, by export of 30,000 tonnes earning Rs. 20 crores.

Small Industry and Unorganised Sector: The Union Industry Ministry estimated that for the current year the output of the small scale sector will be Rs. 7,000 crores representing an 18 per cent growth, against its assumption of a modest 9.2 per cent growth in large and medium industry. Combining the two, industrial growth would be 10.8 per cent. The small sector's high growth is attributed to the general industrial climate, growth of rural incomes, and the larger outlays for power generation, construction and transportation. The small sector provides employment to 22 lakh workers, has an investment of Rs. 1,450 crores and In tanned light leather, woollen knitted wear, printing, cashewnuts roasting, ready made garments, tiles and industrial machinery use 60-80 per cent capacity. The number of small units supplying parts and components to large units has increased from 2,000 in 1970-71 valued at Rs. 27.72 crores to 25,000 in 1975-76 valued at Rs. 71.58 crores. This area is being further expanded by a policy of farming out parts and components from large to small units. The Union government has decided to conduct a census of all non-agricultural economic activity in the unorganised sector, which will be a valuable source for developing this important sector of the economy.

Sugar: Estimates of sugar production during the coming season, starting in October, point to an increase of 7 lakh tonnes over the current season's 43 lakh tonnes terminating in September, if incentives are announced in advance covering

excise rebate, relief in cane purchase tax, enabling the mills to plan their production schedules, according to the mill owners. The government also believes that the next season's output can reach, if not surpass, 50 lakh tonnes if the mills will follow the directive of paying 50 per cent of their excess realisation on levy free sugar to cane growers. The Agricultural Prices Commission completed in early August its study of (a) the cost of production of sugar cane, (b) the return to the grower from alternative crops, (c) the general trend of agricultural commodities, (d) the availability of sugar to the consumer at a fair price, (e) the price at which the sugar produced from sugar cane is sold by the producer and (f) the recovery rate from the cane, and on the basis has made its recommendation on the cane price for the 1976-77 season. The government is studying the report and will announce the price in September—the price which is the minimum price to be paid by the mills to the cane growers. The actual price should be much higher in accordance with its directive. Even so, in this State there is a serious problem for cane growers and given the reduction in cane production over the last year, a minimum price of Rs. 150 per tonne has been suggested to the government. In August the Union government revised levy sugar prices for different zones, reducing the prics in some zones like Tamil Nadu and revising it in others like Andhra Pradesh and Karnataka—with the overall growth of a rise of Rs. 10 per quintal. But by making suitable adjustment in the excise duty on sugar, the increase is not to be passed on to the consumer. For sugar produced in the current season (1975-76) but cleared as levy sugar on or after August 3, the basic excise duty in levy sugar was reduced from 15 to 10 per cent from August 3. There is a 5 per cent additional duty on levy sugar in view of sales tax which means the duty is reduced from 20 to 15 per cent. This involves a loss in government revenue of Rs. 6 crores. Also in regard to the despatch of a minimum of 20 per cent sugar every week, for the first week of every month the despatch can be effected within an additional 3 days to overcome the difficulty of effecting the despatches.

Textiles, Cement and Newsprint: The National Textile Corporation reports that its monthly loss of Rs. 7 crores was reduced for June to Rs. 1.5 crores. Three of its subsidiaries show a normal profit of Rs. 15 lakhs as noted in the last issue (p 460). The production of controlled cloth is now being transformed to the handloom and powerloom sector. The Union government has now decided to recognise 2 lakh powerlooms which actually exist and are functioning but have not been so far recognised by the government. The formal decision to recognise them resulted from the loss of revenue to the government from their non-recognition and their large employment potential. Suitable safeguards for the handloom sector such as a subsidy of Re. one per square metre of controlled cloth production and reservation of 7.5 million metres of saris and dhoties for the first quarter are being worked out before the formal regulatory action of power looms is announced. The Union government is undertaking an expert study of the price and distribution centres and the freight pooling system of the cement industry in the context of increasing its productivity, maximising capacities and improving efficiency. Before the end of the year the results of the study will be available in light of which decisions of long range importance to the cement industry will be made. Unlike the scarcity situation facing the country in 1974 (see Vol IV pp 277 and

485), STC reports growing stocks of newsprint. In August the stock was 20,000 tonnes—about 15,000 tonnes more than what a normal buffer needs. Because of last year's unsold 35,000 tonnes of newsprint with STC, the government banned the import of 80,000 tonnes in November last, which now has to be let in, plus 65,000 tonnes from Canada and 45,000 tonnes from Soviet Union, adding upto a large total of 1.80 lakh tonnes. Last year's newsprint consumption was 1.25 lakh tonnes, for this year 1976-77, 1.40 lakh tonnes will be in use, leaving a surplus of 40,000 tonnes. Further imports by STC should be stopped or suspended.

Agricultural Production : Normal and adequate rains during July and August in all parts of the country (except Tamil Nadu, Karnataka and Kerala) led to speedy sowing operations, normal growth of paddy seedlings and sufficient water for transplantation operations. If September also has the necessary rains at the crop ripening stage, the possibility of 70 million tonnes of kharif foodgrains and achieving the 1976-77 target of 116 million tonnes is a possibility. This is also the Union Planning Commission's target for the year, involving 173.5 million hectares of gross cropped area (against last year's 171 million hectares), extending irrigation in 47.4 million hectares against the 45.3 million hectares target, and fertiliser consumption of 3.60 million tonnes (against 2.83 million tonnes in 1975-76). The Agricultural ministry reports a 34 per cent increase in fertiliser offtake in the current season due to successive reduction in fertiliser prices and intensified sales promotion. The kharif offtake is 13.5 lakh tonnes between February and July (for the same period last year it was 10 lakh tonnes), involving a 29 per cent increase in nitrogen offtake, 53 per cent increase in phosphates and 38 per cent in potash. This calls for a better use of our fertiliser capacity, which is still 65.2 per cent and the attainment of the current year's target of 19.50 lakh tonnes of nitrogen which means using 74 per cent of our capacity (leaving aside the sick Durgapur and Cochin units). With the stock of 18 million tonnes of foodgrains, the problem of financing this stock and storage continue to be major problems. The government has approached the World Bank for a loan of Rs. 100 crores to help in financing the buffer stock which will be of the order of 14 million tonnes (after using 4 million tonnes to meet operational requirements). Unlike the release of one million tonnes per month to the public distribution system in the past year, now the monthly release is only half a million tonnes because of foodgrains in the hands of the consumers, and hence the operational release is estimated at only 4 million tonnes FCI has requested an increase in overdraft limit from the banking sector by Rs. 700 crores, to which the request to the government to increase its equity and the request of the World Bank should be added. On food imports, for the present the government has rightly stopped food inputs but policy with regard to this requires long range studies about foodgrain production and consumption patterns. The other problem is the storage space for this large stock which is gradually being met by new godown construction. About 30 per cent of the stock is still in the open with temporary covers. Also FCI is taking special measures to keep the godown clean and tidy and avoid any loss due to poor maintenance. The RBI study in its June Bulletin on agricultural production trends which is somewhat depressing

needs to be borne in mind in assessing the Planning Commission's target of 124.50 million tonnes for foodgrains production for the Fifth Plan. This can be achieved and calls for increasing the gross cropped area under foodgrains by 4.5 million hectares, increasing the area under minor irrigation by 6 million hectares and major and medium irrigation by 5 million hectares with food water management and use, increasing HYV hectarage from 25 million to 40 million hectares, increasing fertiliser consumption and agricultural credit provision of Rs. 1,700 crores in 1978-79 against the current Rs. 689 crores. Another problem on which long range preventive action has yet to be taken is with regard to floods. The Union government announced in the Lok Sabha as at August 1, that floods in 10 States have resulted in the loss of 254 persons and Rs. 42.53 crores in agricultural crops, houses and public utilities. The floods in August in Punjab and Haryana have added to this toll.

Exports: Continuing the trend reported in the last issue (pp 448-449) the foreign trade figures released for the first quarter April-June shows a trade surplus of Rs. 100 crores. While June exports rose by 14 per cent at Rs. 316.89 crores compared to Rs. 269.25 in June 1975, it was the fall in June imports by 65 per cent at Rs. 274 crores compared to Rs. 435.54 crores that was decisive. The cumulative exports for April-June was Rs. 1,044.66 crores and imports Rs. 943.04 crores. The drastic reduction in food and fertiliser imports has resulted in a trade surplus for every month since February and if this trend continues together with the 35 per cent increase in exports during this period when international markets were still not buoyant, it is likely that the year will end with a trade surplus. While sugar exports may not earn as much as last year, engineering export are expected to be around Rs. 600 crores, as part of the target of Rs. 1,500 exports by 1985, if the 20 to 70 per cent idle capacity in the engineering industries is fully utilised. (The world trade in this sector, primarily steel and aluminium products is Rs. 22,500 crores). For this the input constraints in the industry must be speedily lifted, particularly in heavy engineering, heavy electricals, automobiles, cables, machine tools, agricultural tractors, electric motors, switchgear, earth moving equipment, chemical plants, wagons, motor cycles, cranes etc. In mid August the government announced that import licenses will be taken into account for proportionate reduction in cash assistance for engineering goods made on or after April 1, 1975. In April-May engineering exports of Rs. 77.25 crores were recorded compared to exports of Rs. 59.25 crores in April-May 1975—a 29 per cent increase. Steel exports for this year are being processed at the rate of Rs. 300 crores, while steel imports are expected to be reduced at Rs. 2.15 lakh tonnes against last year's Rs. 2.29 lakh tonnes. Similarly iron-ore imports can be increased with the improved ore handling facilities at the ports to Japan, EEC countries and US. To boost exports, the Union Commerce Ministry announced in August relaxation of its shellac export canalisation policy. This will reverse the decline in shellac exports (Rs. 24.33 crores in 1974-75, Rs. 12.75 crores in 1975-76, the first year of canalisation) and help attain the current year target of 13,000 tonnes. In April and May the export of drugs, pharmaceuticals and fine chemicals as well as man-made textiles declined, which need to be promoted in the balance of the year by improving sales promotion

campaigns and improvement of quality and packing. Turn key projects are on the increase. The Soviet Union is buying equipment from HEC for setting up factories in third world countries. In June and July, HEC received orders for Rs. 9 crores for such equipment, and MECON is processing orders from Rumania for rolling mills. Scheme for increased production and exports of pashmina and mohair used in making warm luxury fabrics is being launched by ICAR through production units in Punjab, Haryana, Jammu and Kashmir, Himachal Pradesh and Ladakh. Again to diversify our exports in shrimps, cuttle fish exports are being planned and for this the Marine Products Export Development Authority is training cuttle fish processors. Also to improve the export performance (as well as production trends) of the garment industry, a working group has been set up by the government to push garment exports through meeting the new developments and fashions in importing countries. The government has also notified a simplified procedure to help all exporters receive financial assistance from the Market Development Fund for their promotional activities involving a single application procedure and grant of aid on the basis of " national " expenses. Carpet backing exports are picking up in the US, which relies for 75 per cent of its carpet backing requirements in Indian exports. It is also expected that when the huge Jebel Ali harbour now under construction in Abu Dhabi is completed, Indian exports to West Asian Countries which are to some extent held up because of lack of berthing space may expand sizeably.

Aid and Debt : The RBI May Bulletin reports that India's net external indebtedness rose by Rs. 782 crores during the year ending March 1973 compared to Rs. 462 crores in the previous year. The total net indebtedness in March 1973 was Rs. 9,560 crores against Rs. 8,778 crores in the previous year. About 70 per cent of the increase or Rs. 543 crores was due to the fall in the exchange value of the Rupee. The rate of growth of foreign liabilities accelerated at Rs. 11,255 crores against the previous year's Rs. 10,387 crores while foreign assets rose to 1,634 crores against the previous year's Rs. 1,591 crores. Long term liabilities consisting of net investment in branches of foreign companies, foreign investment in foreign controlled Rupee companies, and other foreign equity investments and credit liabilities continue to dominate the gross foreign liabilities of corporate sector at Rs. 1,816 crores in March 1973.

International :

Bangla Desh : In August Indo-Bangla Desh discussions were held on procedures for importing into India Rs. 3.5 crores of fish from Bangla Desh as provided in the trade agreement. The negotiations are handled on the Bangla Desh side by the Bangla Desh Fisheries Development Corporation and CFC in India. As a result of the agreement, the first consignment of Bangla Desh fish will arrive in Calcutta in September first week. Bangla Desh also in August signed an agreement with Turkey for a joint commission to expand trade and economic co-operation between the 2 countries.

Pakistan: STC received in August enquiries from Pakistan for export of radios, tape-recorders, pharmaceuticals and other consumer durables. Also an STC delegation visited Islamabad in August to explore the possibility of supplying Pakistan with wagon components, railway track materials etc.,

Pakistan has placed orders in India for Rs. 55 lakhs of pig-iron and Rs. 15 lakhs of bidi leaves.

World Monetary Reform: At the end of August gold was selling at $ 105 an ounce, a decline of $ 17 since the Second IMF auction on July 14 (see Vol VI p. 378). The third sale of 7,80,000 ounces will be held on September 15 despite this decline in gold prices. In IMF books, gold is valued at $ 42.22 an ounce. The IMF/ World Bank Board of Governors will meet on October 2 along with the interim committee and the Development Committee of IMF on October 2 and 3 in Manila. The IMF Board will review the sale of gold, the question of quotas to the IMF, the state of the developing countries balance of accounts etc. To date the sale of gold has produced $ 130 million available as the Fund to help developing countries. The IMF survey for 1976 shows that the current account deficit of non-oil producing developing countries will decline from $ 37 billion in 1975 to $ 32 billion in 1976 because of a relatively larger increase in their exports and a smaller increase in their imports. Because of the higher prices for their exports, the IMF forecasts some improvement in the terms of trade of these countries in 1976, after the last 2 years of deterioration. It also forecasts that the flow of capital to these countries, in combination with the use of the Fund resources and other credits will allow a pick-up in their imports. It estimates that the net flow of financial resources from the 17 OECD countries to the non-oil producing developing countries was $ 38.8 billion and expects this trend to continue.

World Economy: A futuristic UN economic study pointing to the need to close by 2000 AD the income gap between the developed and developing countries which in 1970 was 12 to 1, recommends that the non-oil producing developing countries should surpass the second decade growth target of 5-6 per cent and aim at a 6.5 to 7.5 per cent GDP growth rate through the year 2000 AD. In terms of minerals, energy resources, or in producing more food for the growing population, the study finds, on the basis of exercises of the world global model it has constructed, "no limits to growth" (see Vol II No. 5, p 11. in the coming decades. Despite weather unpredictability or the problems in implementing a technological revolution in agriculture, its finding is that the doubling of land productivity for major food staples is a realistic technical and organisational possibility, involving a minimum 5 per cent growth rate in agricultural production. Pollution, which is serious, is a technologically manageable problem and does not pose an unsurmountable barrier to the accelerated development of the developing countries. What is needed, however, is for those countries to increase their investment ratio to 30 to 35 per cent, involving serious changes in their tax and credit policy, increasing the role of public investment, the public sector production and infrastructure and a more equitable income distribution, involving significant social and institutional changes. In this context, investment resources coming from abroad will be important but secondary to the internal effort and resources. Growth rates in heavy industry will have to be higher than for manufacturers, which on a regional basis will mean increased cooperation between developing countries. In many regions, light industry will be the lead factor, providing the basis for increasing exports. This study, which in a sense is an answer to the Club Rome forecasts—Limits to Growth and Strategy

for Tomorrow—is a document for the continuing negotiations on the New International Economic Order. Its model, under these conditions, envisages an increase in the share of world gross product of the developing countries from 11 to 22 per cent, of the centrally planned economies from 23 to 27 per cent, with the developed market economies share declining from 66 to 51 per cent by 2000. The share of world manufacturers for the 3 groups will be 17.5, 29 and 49 per cent, with no absolute reduction in product or per capita income of any of the developed countries. World trade will increase by 6 per cent per annum with a rapid increase in manufacture and only modest increase in net aid flows. By 2000, the payment deficit of the developing countries will be $190 billion (at 1970 prices), calling for implementation of the basic features of the New International Economic Order such as faster change in the relative prices of primary commodities vis a vis manufactures, larger exports of manufactures by the developing countries and larger aid flows. Thus a combination of basic internal changes and changes in world economic relations are the pre-condition to the accelerated development of developing countries, which can reduce the income gap of the two worlds by 2000 AD.

UNCTAD: Against this rather specific and challenging analysis, the follow up of the promises and negotiating decisions made by UNCTAD IV becomes urgent. The integrated programme for commodities will be considered by UNCTAD's trade and Development Board in Geneva from October 5 to 22. In preparation, the Secretary General is calling a series of preparatory meetings in Geneva for international negotiations on individual products—copper (September 27 to October 1), Jute (October 25-29), hard fibres (December 6-10) and rubber (December 13-17). The first and preparatory meeting for a negotiating conference on a common fund for the financing of buffer stocks will be held in November to discuss the Fund's objectives, and its financing and management methods. Also an *ad hoc* inter-governmental committee to co-ordinate measure under the integrated programme will have its first session in November. These meetings must result in firm commitments by the participating countries and calls for serious concentration, organisation and negotiating skill on the part of developing countries.

Agricultural Fund: OPEC finance ministers meeting in Vienna in August called upon the developed countries to pay $600 million as their contribution to the Agricultural Fund to which they have contributed $400 million. The developed countries have contributed $530 million as expression of their understanding that the fund will call for "rough parity" in contributions of OPEC and developed and third world in administering the fund. US and West Germany are taking up the position that this rough parity is a condition of their participation. This is a somewhat unreal debate which should be quickly resolved to allow the Fund to start operations. The 13th FAO Asian Regional Conference meeting in Manila in August reiterated the urgency of constituting and operating the Fund and in addition has reinforced its support for the New International Economic Order. The OPEC countries have also set aside an additional $400 million as loans to 45 developing countries.

UN Law of the Sea Conference: The fifth session of UN Law of the Sea Conference opened in New York on August 3 with 156 countries participating. The con-

ference is divided into 3 groups whose interests have to be reconciled. First is the developed countries led by the US who want an International Sea Bed Authority (ISBA), which, with their technologically sophisticated techniques, they can use to their advantage. Second there is the group of 87 coastal States who wish to assert their sovereignty over their oceans and who face a text worked out by the previous New York session (see Vol VI p 270) which is heavily weighted in favour of the developed countries on the sea bed authority and related issues on the one side and the claims of the third group —the 52 land locked and geographically disadvantaged countries who have staked a claim for a share in the living resources of the economic zone of the coastal state, right of access to the ocean and a share on the revenue from the oil and mineral resources in the economic zone. In this difficult triangular relationship, not much progress has been made at the conference after the first fortnight. The Conference set up a workshop during its third week and elected India and Netherlands as co-Chairman for redefining some of the contentious issues relating to the establishment of the International Sea Bed Authority, and for evolving a machinery and system for exploitation of the sea bed beyond the 200 mile national jurisdiction. Whether in the last weeks of the conference, an agreed international treaty will emerge is at this stage somewhat doubtful.

World Steel and World Food: Steel output which declined in 1975 by 9 per cent to 620 million tonnes from 682 million tonnes in 1974 is now reverting to 720 million tonnes according to a West German study. While all leading non-communist steel producers, Japan, US and West Germany, produced at a lower level, the Soviet Union on the one side and India and Brazil on the other increased their production. India however which was in the 13th place in 1974 was in the 24th place in 1975. On the world food front, the US Department of Agriculture forecasts a smaller world grain crop at 1,057.6 million tonnes compared to its June forecast of 1,062.1 million tonnes due to the drought conditions in Western Europe and Australia. India, Argentina and US estimates remain unchanged.

Non-aligned Summit: The Non-aligned Summit attended by 82 Heads of State or government meeting at Colombo from August 16-20 made a number of economic decisions: (a) Expert groups are to study the project for a Bank of the Developing Countries and evolving a counter vailing currency: (b) other monetary arrangements to include strengthening existing clearing arrangements and creating new ones at the sub-regional and inter-regional levels, establishing links among existing payments schemes, and harmonizing of exchange rate policies of non-aligned and other developing countries: (c) invitation to the Paris conference to conclude negotiations on debts by the end of the year, and if this is not done developing countries to meet at a high level to determine their further course of action: (d) endorsement of the Lima Conference proposal for Councils or Association of producer countries and UNCTAD's integrated commodity programme, (e) special emphasis in industrialisation of the non-aligned countries and for this purpose co-operation among them: (f) the proposal for the establishment of a centre for scientific and technological co-operation among non-aligned countries for evolving technological strategy, inter-country co-operation in laboratary, installation, training and technical staff, help in developing national

S and T plans, and help in closing the gap between developed and developing countries. (see last issue p 453). The Summit also endorsed the project for the non-aligned agencies pool referred to in the last issue (p 453).

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II Agricultural Development

Paddy:

Kuruvai paddy plantings face uncertainties this year due to the failure and lateness of the South West monsoon. The late release of the Mettur waters referred to in the last issue (p 453) meant that paddy planting was delayed by 3-4 weeks in Thanjavur district. To counter the ill effects of this late planting, farmers are advised to use short duration HYV like ADT-31, or Co-33 in place of ADT-27, to plant the seedlings closely, to use only 25 day old seedlings. The alternate day release of Mettur water has raised doubts about the Kuruvai crop in the minds of farmers. Difficulties in getting water for transplanting operations and the problems of partial wetting are causing concern. Estimates are 70 per cent of the Kumbakonam area nurseries have been planted before Mettur water, and 25 per cent planted after August 3. In the Mayuram area, if water is available till the end of August, 80 per cent of kuruvai transplantation would be completed. Government expects that with Karnataka water release, 4 lakh acres will be covered in Thanjavur for kuruvai, which means the samba area must be increased from the normal 6.59 lakh acres to 8 lakh acres, and thaladi on the other hand instead of covering 3.90 lakh acres will be raised only in 40,000 acres. In the northern parts of Tamil Nadu where rains have been continuous and heavy, paddy operations are well under way. It is in Tirunelveli district where the canals should now be overflowing that the dry canals have resulted in uncultivated fields. In Madurai district there is similar distress except in the Cumbum area where the water has been released from Periyar. Lands in the fertile Tambaraparni delta are forced to remain fallow. Crops are being raised on only three fourths of the total extent of 90,000 acres of double crop land in the delta. The level in Papanasam rose during the second week of August and with improved storage and flow of the Sembalar, the largest tributary of Tambaraparni, 16,000 acres in the Ambasamudram taluk are being irrigated. In some areas here the transplantation of the traditional samba is being carried out. The seedlings being used are averaged, the grain yield will be only 50 per cent but the farmers want this crop for its pay for their cattle. In other areas farmers are being advised to raise advance Pishanam, with medium duration varieties like IR-20, IR-8, followed by short duration ADT-31 and Kannagi with the help of the North East monsoon. In August the State was

visited by the Agricultural Prices Commission which is considering prices for the next kharif season. All the various farmers associations from Thanjavur, Tiruchirapalli, North Arcot and South Arcot as well as the Statewide bodies have asked for (a) reinstalment of the bonus of Rs. 11 discontinued in the middle of the samba season, (b) prices ranging from 110 to Rs. 125 per quintal. Though the testimony was somewhat confusing, and the actual figures mentioned varying from one district to another, there was general emphasis as the need to increase the price of paddy to match the increase in the cost of cultivation. The Commission after a 3 day stay returned to Delhi where it will study the evidence and arrive at its recommendations.

Research Results:

Research at the MP (Jabalpur) University has resulted in a short duration disease resistant paddy variety JR-3756, which is not only resistant to all paddy pests unlike IR-20, it is as high yielding as Jaya. Jabalpore has also evolved 3 other rice varieties which are high yielding (4,000 kg. per hectare) and of 100-110 days duration. It can be grown in this State and will meet many of the farmers' problems. The International Rice Research Institute in Los Banos in the Phillippines which has been responsible for the rice revolution in Asia through its research release of the IR series has decided to discontinue the series in the interest of getting national research stations to develop their varieties. The Institute will supply breeding material to the National Research Programmes and encourage them to evolve new varieties suited to local specifications, needs and conditions. Each country can now name the variety it evolves as it likes. The supply of IRRI breeding material and data from individual countries will be co-ordinated by the International Rice Testing Programme, closely allied to IRRI, which in its turn will pay more attention to collecting rice genetic material, and identifying special characteristics like resistance to pests and yield quality. Two new rice cultures, CR-224 and CR-225 developed by Central Rice Research Institute, Cuttack, are like Kannagi and are being grown in current navarai and sornawari seasons. CR-225 belongs to the finest variety and can replace kichli samba in quality and is being grown in 102 to 105 days. CR-224 is longer (110 days) but is prone to stemborer and should be grown and attended to with care. Also research by IARI scientists at Rajasthan have found that two varieties—ES-23 and ES-172—of sesame plant and seed is immune to the common phyllody disease which afflicts this crop at all stages in this and other States. Research has also brought to light the fact that the kernel of the mango seed now thrown away as waste and of which there are 2 million tonnes every year, can produce one million tonnes of good poultry feed. When mixed with maize for the feed, it increases egg productivity, but must be used in moderation to increase the weight of the chicken. The G B Pant University has developed soyabean not only as an edible oil producing crop but as a vegetable like peas. This might be of particular interest to the large vegetarian population in this State. ACRIP scientists at Hyderabad report that adapting the technique of placing nitrogen in the form urea in mud balls, by wrapping urea in waste paper packets and placing them at the required depths in transplanted paddy fields, significantly increases grain yields. This placement technique has also been

developed for phosphatic fertilisers at ACRIP.

Farm Mechanisation and Jasmine Extraction:

With the World Bank loan of Rs. 78 crores for the purchase of 15,000 tractors under the farm mechanisation programme in this State, the Tamil Nadu Co-operative State Land Development Bank is financing the programme of purchasing and distributing 1,600 tractors by August, 800 tractors have been distributed and the other 800 will be purchased and distributed by the end of the year. To date not even 6 per cent of our cultivated land is under tractor cultivation. While there is no need for large scale deployment of this form of mechanisation because of its deleterious effect on employment and the fragmented nature of land holdings, there are farms where tractors can and should be used as a means of increasing both productivity and employment. On the agro-industrial front, Tudialur Co-operative Agricultural Service is setting up a Rs. 15 lakh jasmine extraction plant—a pioneering co-operative venture, which would crush 1,000 kg. of jasmine flower for extracting 3.5 kg. of jasmine perfume. The foreign market in West Germany (Eau De Cologne market) has already been secured. The Tudialur Society is also launching a Rs. 3 crore seed multiplication scheme as the lead scheme under the country's massive seed multiplication scheme being financed in Tamil Nadu to the extent of 70 per cent by NCDC and the rest by the State and the Co-operative Society.

Fish Farming :

The Central Fisheries Corporation proposes to take on long term lease the lakes and reservoirs in the State to inrease production and procurement of fish and to exploit the abundance of inland water fish in the State. The State's inland water fish will be caught and transported to the large Calcutta market. In return Tamil Nadu will receive more marine fish from Kerala. The Corporation has purchased 2 trawlers to survey the east coast, wherein the shoals of fish on the Tamil Nadu coast will be identified. The Corporation is opening several fish stalls over and above the present eight and it is necessary that people should get used to eating frozen fish in place of only fresh fish.

Sheep Farming :

At the sheep breeding station at Sandynallah in the Nilgiris, the State government and ICAR have successfully developed a pure breed merino sheep station where 193 such sheep out of total stock of 2,076 sheep are developed. The merino breed is nearer to the objective of increased wool of fine quality than the other breeds—the Nilgiris sheep, the Romney types etc. It is proposed to increase the basic stock strength to 5,000 over a period of 10 years to run the farm economically, to breed rams and ewes for distribution to private breeders, to increase the wool production potential of the area through sheep farming as a subsidiary occupation organise wool marketing and establish woolen yarn and weaving under the co-operative sector. The Nilgiris with climate and pasture are the ideal locale for the development of the white merino sheep and can in time supply the Rs. 10 crores exported carpets the white wool they need which is now imported at about the same cost.

Dairy Farming :

Around Cheyyar, Madurantakam taluk, in 15 villages with a population of 5,300

is developing a good dairy farming enterprise. In each village a producer co-operative has been organised through which two banks—Canara and Central—extend credit facilities for the member to buy milch cattle, the National Insurance Company provides insurance cover and the State Dairy Development Corporation provides marketing infrastructure including a chilling centre at Acharapalkam for keeping procured milk, veterinary assistance and training of one employee in every co-operative in artificial insemination, using the semen supplied by the Corporation. Cattle feed is provided on a no profit no loss basis and the local SFDA provides also subsidy to its members to buy milch cattle. In neighbouring Tindivanam, 20 unemployed graduates have been given a bank loan of Rs. 30,000 each to purchase and maintain 8 milch cattle. Through this self-employment programme covering both landless labourers, freed bonded labourers and unemployed graduates, it is planned to increase the 2,000 litres of milk now purchased by the Corporation to 5,000 litres by December and 10,000 litres by December 1977. In addition to the Rs. 16 lakhs loan given to 600 dairy men by the Canara Bank, Rs. 42.2 lakhs were given to 60 farmers to set up gobar gas plants and improve their crops.

Tea :

Tea production in Tamil Nadu and the South, due to the late arrival of the monsoons, is reduced by June by 3.5 million kgs. Sri Lanka facing the same lack of rain had its tea output reduced by 16 million kg. to the end of June. In the North Eastern region, upto the end of June, 14 million kg. additional tea production was being realised but the floods in the Brahmaputra valley in July reduced this amount to 9 million kg. With only marginal increases in tea production in Bangla Desh, Kenya and Malawi, world supply of tea is likely to show no increase. Prices however have been rising during the first 6 months, for South India by 17 per cent, Sri Lanka by 20 per cent, Kenya by 20 per cent and Malawi 31 per cent. Thus with the estimate 500 million kg. of tea production for India for this year, tea exports for 1976 is likely to increase to Rs. 262 crores from last year's Rs. 240 crores.

Coffee :

The Coffee Board sanctioned in August long term loans of Rs. 202.57 lakhs to 1,774 small growers in Karnataka, Tamil Nadu and Kerala to promote intensive coffee cultivation. Under crop hypothecation, 427 coffee planters have been given Rs. 43.91 lakhs, under hire purchase of estate equipment and marketing Rs. 370.03 lakhs, and for replanting in 4,913 acres Rs. 134.75 lakhs and Rs. 6.7 lakhs to 81 small growers for construction of drying yards.

Rubber:

Rubber production increased by 5.84 per cent in 1975-76 as against 4 per cent for the previous year. Natural rubber production was 1,37,750 tonnes, the stock at March 31 was 53,759 and 27 per cent of the area was planted with modern high yielding budgrafts. The major problem facing the industry and government is the question of stabilising the price of rubber. The Rubber Board has submitted a detailed report on this to the government with breakdown of costs to enable the government to fix the floor price, last established in 1970 at Rs. 520 a quintal. The price has been fluctuating, Rs. 377 in December 1971, Rs. 1,004 in August 1974 and now at Rs. 600. It is forecast

that India will have excess production till 1980-81, with 10,000 tonnes being available annually for exports. The price to be decided must take into account the interest of manufacturers and the need for buffer stock to be shared by the government and the industry and the related issue of the annual exports.

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III Industrial Development

Industrial Growth Trends:

A Union government team from the Directorate General of Technical Development visited the State in August to study the industrial growth trends and arrive at action to be taken to improve the industrial growth rate of the State. Its survey included matters concerning the capacity utilisation of the engineering industry, improved licensing, credit needs and availabilities. The report of the team should be on important step in the further industrial growth of the State. Also the Directorate of Industries and Commerce and the Small Industries Development Corporation have launched a 3 month programme from August 10 to November 18 to register 5,900 additional small scale units in the State as a means of attaining a higher small industries growth rate and accelerating the tempo of industrialisation. In this programme special attention is being given to rural industries and backward areas. On this basis, targets for each district have been established and the Joint-Director of Industries and Commerce and Senior Officers of SIDCO are supervising the work of Regional Deputy Directors and Project Officers whose personal responsibility is to achieve the targets. In the State industrialisation programme, the Industrial Finance Corporation reports that Tamil Nadu has received the largest assistance from the Corporation to 81 projects with a capital outlay of Rs. 415 crores, the Corporation contributing Rs. 72. 4 crores. The aided industries are in the area of sugar, textiles, paper, fertiliser and cement. Ten of the projects with the assistance of Rs. 8.43 crores are in the co-operative sector and the other 71 in the corporate sector receiving Rs. 63.97 crores. 90 per cent of the assistance, Rs. 64.93 crores, has been disbursed and 31 per cent of the total assistance has gone to projects in seven out of 9 backward districts. In this connection, the Corporation has commended the planned industrialisation approach of the State, such as SIPCOT's Industrial Complex at Ranipet where the contribution to the net State product will rise from Rs. 15 crores to Rs. 26.5 crores in 1978-79. The State government has developed an industrial strategy taking account of the limitation in State inputs of power and minerals, under which priority is to be given to industrial products which are "high value added low volume products". Under this criteria. electronics, official goods, precision machine tools,

sugar and salt and their bye products are the industries of the future. TIDCO will process applications in the areas quickly. Also the government is streamlining the licensing procedure as recommended in 1974 by the Administrative Reforms Committee under which entrepreneurs pressures, particularly those in backward and rural areas will have to follow simple and uniform procedure for registration of small scale units (see Vol III p 114). The government has also under study a project to establish a World Trade Centre and an Industrial Research and Development unit to speed the State's industrialisation programme. Maharashtra has established these facilities and this State needs them to move forward industrially in relation to its large foreign markets.

Salem Steel :

The Union Planning Commission's Special Committee to assess as the financial viability of the Salem Steel Project, under the Chairmanship of Mr. V. G. Rajadhyaksha submitted its report to the commission at the end of July. The Commission examined the earlier assumptions for the project's cost estimates, investment return, demand assumptions for various types of steel products, the excise duty structure and import duties and international steel prices trends. It also examined an earlier suggestion (Vol III pp 32 and 112, Vol V p 285) that Durgapur alloy steel supply Salem with hot rolled bands and found that this will be more costly in creating additional facilities at Durgapur. The finding of the committee is that Salem Steel Project is financially viable and the earlier assumption that it would give an annual return of 12 per cent is sound. The report is now under study in the Prime Minister's Secretariat at the Planning Commission, the Ministry of Steel and the Finance Ministry. It is expected that the Prime Minister will call a meeting for a decision on the project sometime in September.

TIIC :

The annual report for 1975-76 of the Tamil Nadu Industrial Investment Corporation records a disbursal of Rs. 13.13 crores (Rs. 8.24 crores the previous year) and a preprofit tax of Rs. 114.19 lakhs (Rs. 41.76 lakhs in the previous year). Concessional finance to units in backward areas was Rs. 9.29 crores, being 24 per cent of the total advances. To promote large industrial projects, the Corporation proposes to form a Consortium of Commercial banks and other State owned financial institutions. The Consortium would undertake joint appraisal of projects to determine their term loans and working capital. The Corporation is also setting up a management consultancy service to help entrepreneurs with the facilities offered by it. It plans to give priority in accordance with the State's strategy to electronics and precision engineering industry, chemicals and small scale engineering units and provide loans on liberal terms—lower interest, lower margins, longer repayment holiday and amortization period—for which it will issue special shares carrying no dividends. It will provide bridge loans to background areas units in anticipation of their receiving aid from IDBI.

Electronics :

The electronics industry in the State started with an annual production of Rs. 25 lakhs has now developed to a Rs. 3 crores production. The major production unit is the functional industrial estate—

the Dr. Vikram Sarabhai Instronic Estate at Adyar—where apart from several small units, TIDCO operates a major unit—Dynavision for making television receivers. Its parts and components are provided by ancillary units on the campus, and production is being increased to the full licensed capacity of 10,000 sets a year by next year, to be increased later to 20,000, with an export component. The R and D unit attached to it has already enabled the ancillaries to produce sophisticated plastic parts and texturisation and electroplating of the surface, with 7 units supplying the cabinets, and others printed circuit boards, transformers, special coils etc. The government plans to diversify this sector, set up 500 new electronic units to make professional components, industrial electronics, process control equipment and material. A special committee set up by the government is at work identifying areas of production development of industrial complexes for electronics, the optimum organisational pattern for the industry, exports, links between the electronics industry and the user industry and market research generally. A Rs. 35 lakh Electronics testing and Development Centre for certification and product development has been established in the campus. It will provide testing facilities to industrialists and develop prototypes according to the specification of the industrialists. The Department of Electronics has granted Rs. 15.91 lakhs to the Centre for special testing equipment. In addition a data bank has been set up in the complex, storing information on electric, electronic and instrumentation industries in the State, with reference to investment made, manpower engaged, raw materials used and ancillary capacity established. Similar functional electronics estates have been established in Tiruchi where 8 out of 20 factories have been established, Hosur where 4 out of 16 sheds and 10 out of 20 plots have been engaged, along with similiar plans for Salem, Coimbatore and Madurai.

TANSI and TNAIC:

The first Mopeds fabricated in the State by TANSI went on the road on August 22. The government is, on the basis, launching the Rs. 117 lakhs Tamil Nadu Mopeds Limited with a capacity of 20,000 mopeds, starting with 1,000 this year. Production in the temporary shed in the Guindy Industrial Estate is being shifted to the company's own building at Maraimalai-nagar by the end of the year. The Tamil Nadu Agro Industries Corporation in its turn is establishing a Rs. 3 crores plant to manufacture glucose, sophisticated starch, straw based packing paper and food products—a much needed programme in this drought year.

Golden Rock :

Four major production units for the manufacture of vital components to diesel locos are being established in the railway workshop at Golden Rock. The units are the Rs. 69 lakh cylinder liner project, Rs. 123 lakh cyclinders block reclamation project and two Rs. 18 lakh projects for coil winding and periodical overhauling of locos. The workshop is a major production facility for Indian railways.

Madras Fertilisers, Tyres and Textiles :

Madras Fertilisers Rs. 8 crores third section with a capacity of 1.8 lakh tonnes of complex fertilisers has been completed and will go on stream in October. With the improved demand for fertilisers, the unit will produce now in all 3 sections with a total 5.4 lakh tonnes. It has com-

puterised its distribution system and is intensifying its distribution programme and the education of farmers. In 1975-76 its nitrogen output of 1.43 lakh tonnes exceeded its target, ammonia and urea production was also over one lakh tonnes, making a total of 2.52 lakh tonnes of nutrients. On the tyre front, tyre dealers have submitted a good memorandum to the government showing that the 13.65 per cent sales tax on tyres in Tamil Nadu compared to 9 per cent in Pondicherry, 11.42 per cent in Andhra Pradesh and 12 per cent in Karnataka is leading truck operators in this State to buy their tyres outside Tamil Nadu. The government is convinced and will announce next month a reduction in the State sales tax to around 11 per cent which will push up tyre sales in the city by 20 per cent and in the mofussil by 15 per cent. On the textiles side, the 11 member committee set up by the Union government to examine the financial needs of the spinning mills in the South and make recommendations on the terms and conditions for giving them financial aid submitted its report on August 7. The Committee has recommended deferment of the huge arrears of commercial taxes and power charges in the case of mills with a poor financial base. This together with assurance by some of the nationalised banks to provide the mills with funds has considerably improved their prospects. The managements of the mills have been advised to restructure their capital base by converting their unsecured deposits into equity shares, and appoint professionally qualified managers to administer the mills. This is necessary to avoid a return to the mismanagement which is at the root of their ills.

Chemical and Dye Unit and Coir Industry :

TIDCO is planning to set up a Rs. 2 crore chemical complex to manufacture acid anhydride and acetate acid at Thondamanallur in the Pudukottai district. The district has also developed plans for a dye plant in collaboration with the chemical industry and has suggested the location of Avadayarkoil. The coir industry in Salem employing 15,000 workers and producing Rs. 10 crores of products per annum is in trouble with the stoppage of coconut fibre from Kerala. 90 per cent of its annual requirement of 22,000 tonnes comes from Kerala, only 10 per cent from this State. This problem was also faced last year and like last year the two government and the all India Coir Board can come to the help of Salem. But it is time that the coir industry in this State followed the Kerala pattern and through price and other incentives ensured that the local fibres are used for 10 months and not as at present for 3-6 months.

Handloom and Hosiery Products :

Production of controlled cloth (saris and dhoties) is to be taken on a pilot scale from October in the Handloom sector. In all 4 Southern States, action is being taken to bring 60 per cent of weavers into the co-operative sector. RBI is to help in providing them with credit and facilities for improving the processing and quality of products. SITRA has been asked by the Handloom Export Promotion Council to study the organisational and technical methods necessary for improving exports of ready-made handloom garments. Also the Council has appointed a committee to bring spinning mills and handloom exporters together for the supply of yarn to the latter

at low prices. As handloom garments constituted the bulk of the Rs. 125 crores handloom exports, SITRA will concentrate on studying the quality of fabrics used, constructional details, fabric strengths, shrinkage, colour fastness, stitching, finishing etc., plus quality control, technology, process, costs and operational set up. With regard to hosiery products produced by small units in Tiruchur, in view of the marketing difficulties they face, the units are being formed into a consortium under the aegis of the South India Hosiery Manufacturers Association and the Tamil Nadu Civil Supplies Corporation will market the product through its 1,000 retail outlets.

Leather :

During Apirl-June 1976 leather exports amounted to Rs. 75 crorers (33 per cent semi-finished El, 23 per cent wet blues, 32 per cent finished and 12 per cent footwear), so that the year's target of Rs. 300 crores is likely to be achieved. The 400 tanneries in the South have switched to finished leather products. The Union government, however, points out that out of the total production capacity for finished leather of 21 million hides and 25 million skin, only 67 per cent of semi-finished hides and 40 per cent of semi-finished skins have been converted into finished leather, and within this, the organised sector produced only 2.5 million semi-finished and 7 million finished leather, the major part being done in the unorganised sector. It is also of the view that much of the finished leather exported is not really finished but requires further processing. This double problem points to the country's leather finishing capacity being unutilised. One reason for it is concentrated in a few units—9 large scale units have a capacity for 9.5 million pieces, and eight new ones have been sanctioned a capacity for 7.5 million pieces. The finishing centres set up in this State should improve this situation. The Union government announced in August that it has decided that a Central Apex Body, Bharat Leather Corporation is to be set up at Agra to co-ordinate promotional and developmental activities of the leather industry. It is a pity that the body is located in Agra, while this State accounts for 72 per cent of the exports. If that body allows the Council in Madras freedom to develop the industry and provides it with the needed assistance, it might be a helpful force.

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IV Education, Science and Health

Educational Reform:

As part of the process of launching the 10+2+3 system in the State, the government announced at July end the establishment of the Board of Higher Secondary Education consisting of 21 members with the Director of School

Education as the Chairman. The Board will be responsible for the courses of study, syllabus, text-books, the nature and duration of question papers and the appointment of examiners for higher secondary schools. Following a special drive and with active co-operation of parents and teachers, the government also announced that it has achieved this year the target of enrolling 70,000 more pupils in schools. On the other hand, teacher slackness is reported during a surprise visit by the Adviser to a higher elementary school in Thidavoor, Salem district, where class teachers in 3 out of 6 class rooms were missing as they had gone out without permission. Also as the Education Finance Review Committee had pointed out (see Vol V pp 487 and 680), the school was in a dilapidated condition, in fact the school building was dangerous for use. There is need for the school improvement and inspection programme to be made effective. Among Madras city corporation schools special refresher courses were organised in August to update the knowledge in english, mathematics, science, history and geography In addition to elective subjects of 550 teachers with the help of SCERT. Also 64 corporation schools, 8 government and 8 private schools where less than 30 per cent of the students passed the SSLC examination are adopting the tutorial system under which a group of students are attached to a teacher who pays special attention to each of them. The government's integrated child health development services involving pre-school medical check up and inspection in schools to detect diseases and deficiencies and imunisation programmes in rural areas now operating in Madurai and Dharmapuri districts are gradually being extended throughout the State. A number of schools in Madras have been brought into the programme. At the University level, an important development is that the Gandhigram Rural Institute in Madurai district has been accorded the status of a deemed university by the Union government, so that its degrees and diplomas will now have normal university status and it will come under the UGC guidance and grant in aid system. This should give the Institute the opportunity to continue and intensify its innovative programme of rural research and education. At a week's workshop in Madras organised by NCERT and SCERT useful recommendations were developed to improve evaluation procedure for the M.Ed. and B.Ed. degree courses of the University and build model papers and develop internal assessment in them. At the employment level, the Director of Collegiate Education is organising 60 special lectures at Tiruchi for graduates who are preparing for IAS and other All India examinations to improve the performance of students from this State. Until the full impact of the University reforms currently initiated is felt, this kind of emergency programme is necessary and useful.

Adult Literacy :

The UN team which visited some SITE villages has given a positive report on the functioning of the SITE programme. The government's assessment is that it helped the rural audiences in conveying information on agriculture, education, health and industry and also improved school attendance. The programme is being continued through terrestrial TV as noted in vol VI p 329. The effect of SITE on rural development will have to be assessed more scientifically by specialists. The National Federation of Indian Women which ran in 1975 adult literacy classes for 2 hours daily for 2 lakh adult women plans to intensify its programme in rural

areas this year. A special effort is being made in Aduthurai to provide literacy education to young and adult illiterate farmers within the framework of the farmers functional literacy programme. In this context, one of the requirements is a functional text of 600 to 700 words which has to be prepared for each age-group, occupation and in accordance with the environment. This is one of the first tasks that the Special Office of Non-formal Education should take up. Also in August, training programmes for instructors in the Non-formal Education programme of the Tiruchi and Coimbatore districts were held in the 2 cities to improve the technical and general capacity of the instructors in the programme.

Technical Education:

IIT, Madras, which in the past 3 years has undertaken 2,674 consultancy and testing assignments for 600 organisations, plans to treble this programme in the next 2 years on the basis of target services which the facilities and resource of the Institute make possible. The State Board of Technical Education has recommended that a centre of continuing education be established at the College of Engineering, Guindy to run refresher courses for working engineers and that new courses in radio telegraphy, maintenance engineering and modern farm machinery technology be introduced along side refrigeration and air-conditioning to be offered at theEngineering College, Guindy. It also recommended that the 14 technical high-schools in the State be converted into higher secondary (vocational streams) schools, and that a computer centre be established at Coimbatore for teaching, research and use by industry. In connection with the country's technical education programme, the question has been raised, in view of the brain drain of engineers, whether the programme is more suited to international needs rather than to the Indian situation and how our technical education system with its important gains can be adapted to meet rural and national needs for development. At the agricultural education level, following the recommendation of the Vice-Chancellors of the Agricultural Universities for a total review of the concept, growth and performance of the farm universities in the country, a joint team of the government of India and the World Bank has been set up to make a critical assessment of the major gaps in the on-going research and post-graduate training programmes of the Agricultural Universities, and to draw up a plan to overcome the deficiencies. The World Bank is likely to make available some $ 50 million for this project to help the Universities overcome the defects: (a) the development of strong schools of research, education and training: (b) developing good pilot farms: (c) bringing under the agricultural university all agricultural research in every State; and (d) introduction of compulsory rural service for all its students. In the State, plans are being made on a time bound basis to implement the restructuring of medical education as envisaged in the Srivatsava Committee to provide health care to the rural masses (see Vol V pp 5 and 292, Vol VI p 100). This programme to develop an integrated service covering promotive, preventive and creative aspects of health service and family planning calls for reform of the medical curriculum, teaching and training methods and intern service in the rural health centres by the students. The University is at work to get this programme under way quickly. In addition, there is the programme of popular health education for disseminating among the rural community,

knowledge about child and maternal care, nutrition, immunisation and simple remedies for common ailments, involving training teachers, postmasters, gram sevaks, and mid-wives as village level para medical workers which the government is also starting on. On the other hand the desire of the Karnataka government to establish a University of Health Sciences which will bring under the Uuiversity, the medical faculties of the 3 Universities has been vetoed by the Union government. The Karnataka Assembly passed a Bill to this effect, but the Union government has rightly queried its competence to act without the concurrence of the Union authorities. What is needed is the reform programme set forth by the Srivatsava Committee, not the creation of new institutions or structures.

Science :

CSIR reports that its national laboratories have developed a number of technical processes for rural development—NCL has developed an insecticide, phenthoate, now being produced commercially at five tonnes to be expanded to 30,000 tonnes, CFRI has developed a multi-purpose organic fertiliser from coal, called CAMP, now being tested by FCI, CFTRI has developed a pest proffing machine which can treat 30,000 bags a day. In order to regulate both indigenous technology claims by industries and imported technology appropriateness, a system of exchange of experts among government, industry, and R and D institutions to monitor both indigenous technology claims and imported ones is being developed. DGTD will be in charge of the programme. During the 1975 kharif season, AICRIP, Hyderabad launched a successful crop surveillance programme with the help of the research and extension staff of agricultural universities and State Departments of Agriculture in AP, MP, Karnataka, Maharashtra and Tamil Nadu. The success of this programme has led to its continuance as part of the farmer's advisory service. The Biological Institute in Bangalore reports using biological control techniques in successfully checking water hyacinth, a weed which menaces the country's tanks and inland fish resources. In the field of satellite research, India has entered into agreement with Afghanistan, Argentina, Bangla Desh, Egypt and Iran to train scientists in satellite use. The national communication system will have a satellite component which will be a multi-purpose one for providing telecommunications, direct TV broadcasting and net working and meteorological services. Space technology is to be used for forecasting crop yields, weather and floods, and locating mineral resources. And the engineering model of India's second satellite is nearly completed at Peenya with the help of 100 scientists and engineers working on it. This second satellite will be ready in September 1977 and will be launched from a Soviet Cosmodrome to conduct experimental studies in meteorology, oceanography and forestry. The data from Aryabhata and the experience in building it has been used in building the second satellite.

Health :

The Union target aims to bring down the birth-rate to 30 per 1,000 population by the end of the Fifth Plan, which means in the remaining two-and-a-half years 40 million couples have to be projected as against the present 19 million. To do this the family planning programme must move out to the unorganised rural sector, from the organised sector in which it has

been successful to date. In this connection, a hopeful development is the speed with which the abortion law has caught on. This has meant the social stigma and disfavour of this act has been rapidly overcome. The Union government reports that since the Medical Termination of Pregnancy Act came into existence in 1972, 1,681 hospitals and recognised institutions report 3,47,312 abortions, with over 5 per cent of them being performed in the last year, 1975-76. This geometric progression is due to the increased availability of termination facilities in rural areas and the recognition by rural facilities that abortion is a sound and essential health measure.

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V Employment

A State sample study of the working of the scheme of workers participation in industry shows that both Unions and managements have welcomed the scheme and are making it a success. Out of 217 units, 191 had implemented the scheme, setting up 530 shop councils and 191 joint councils. In regard to the apprentices programme in the State, in the year since the New Economic programme has been implemented, the number has almost doubled from 5,000 in June last to 9,000, including 1,479 apprentices from the scheduled castes, 4 from scheduled tribes, 170 women and 3,851 from backward classes. The State Planning Commission's study of educated unemployment in the State calls for a suitable incomes policy by government which would narrow the wide variations in incomes between occupations calling for identical performance and so help young workers to chose careers according to their interest and aptitude and not for the income level. This will deal with the familiar problem of preference for white colour employment. There is also the need for man-power planning to correct man-power imbalances, project future trends and carry out adjustments. Further, unemployment can be dealt with by career guidance and advice at schools and colleges and a State Board of Vocational and Educational guidance, streamlining the system of vacancy and labour clearing based on mobile labour vocation. It also identifies rural self-employment occupations, youth corps, sales promotion and market research as means of alieviating educated unemployment. All India Employment Exchanges as at the end of May 1976 report 93,35,200 persons on the live employment registers, including 17,316 engineering graduates and post-graduates. The Union government reports that the study team on rural employment (see Vol VI p 31) submitted its interim report in August and on this basis it has been decided to merge employment programmes with the

programme of integrated rural employment. It is to be hoped that this is a real and serious decision for the 27th round of NSS reports 2 million rural workers (1 per cent of the labour force) are chronically unemployed. In a survey of the US National Science Foundation of the 56,300 scientists who have migrated to the US, India stands second at 13 per cent (after UK at 20 per cent). The reasons given by Indian scientists for their immigration are: higher US standard of living, curiosity about IS, inadequate opportunities for research in India improving childrens' opportunities and development of professional skills. 62 per cent of Indian scientists and engineers were doctorate degree holders, which is more than double the US level, their specialisation being chemistry, life sciences, engineering and physics. As an incentive to returning scientists, the Union government has permitted each to bring back $50,000 scientific instruments and equipment without import license or customs clearances, provided the equipment is for his own use. This is a useful step and might attract specialists back home.

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VI Other Items

Nilgiris Colleges:

During August the 3 colleges in the Nilgiris celebrated the inauguration of their college unions. Providence College has developed into a good women's college with an enrolment of 400 students. The College Union inauguration was an occasion for students defining their objectives and reflecting over the University reform programme. The Government Arts College, Ootacamund, also celebrated its college union with an enrolment over 2,900 students. The possibility of the college developing post-graduate facilities and being affiliated in B.A. defence studies was considered. The third college, Emerald Heights, Ootacamund, is still in the formative stage, with an enrolment of 80 students and seeking for permanent quarters. The most impressive institution in the Nilgiris is the National Defence College, Wellington which runs a high level programme for 330 officers and which JNU is about to recognise as an M.Sc. programme. The curriculum is modern and relevant to the country and the occupation, the methods of teaching and learning are refreshingly excellent and the evaluation system one of the most scientific in the country. In fact the universities can learn a lot from the college and it can help the government Arts College, Ootacamund, develop a good B.A. defence studies programme.

COSTED:

The Committee on Science and Technology for Developing Countries of the

International Council of Scientific Unions organised in co-operation with the Andhra Pradesh Academy of Sciences a 3 day seminar in Hyderabad on science in the service of the developing countries. In the plenary sessions the accent was on the socio-economic problems faced by the developing countries, namely poverty, unemployment, stagnant agriculture, balance of accounts problem and international trade and power structures—and how science and technology could and should be deployed to meet and overcome these problems, particularly in the rural areas. There was also a panel discussion on science policy in the developing countries, where the emphasis was on the development of science as an indigenous input in the countries. The seminar was attended by leading scientists in the country and was inaugurated by the minister of industry who stressed the problems faced by industry in the backward areas and how appropriate technology needs to be devised to overcome them.

NSS:

In August a 3 day conference of the NSS programme officers from 90 colleges was held in Madras to draw up the programme of work for the NSS cadres for the academic year. The decision was to integrate the work programme of NSS in the colleges with the community social service of the PG and semesterised first degree course, and the plan that each college is working on to contribute to the University programme of Integrated Rural Development. The Advisory Committee of NSS meeting soon after this conferences confirmed these decisions and decided to add work on Integrated Rural Development to the work programme of NSS, which concentrates on national campaigns against drought, programmes of tree planting and non-formal education.

UGC :

Two committees of the University Grants Commission met in August, One dealt with procedures for Ph.D., thesis valuation. The main conclusion on this was that given the wide ranging and comprehensive expertise available in the country, there is no need to appoint foreign examiners except in highly specialised fields where the number of Indian specialists is limited. Consequently it was also recommended that the viva voce examination for every Ph.D., thesis should be a public viva voce. The second meeting dealt with the upgrading of post-graduate programmes in affiliated colleges. Attention was concentrated on the guidelines issued by the Commission setting forth minimum qualifications for post-graduate teachers—six with research qualifications, of whom 3 should be Ph.Ds. in science courses and 4 with research qualifications, of whom 2 should be Ph.Ds. in social science courses. The means of enforcing these guidelines were discussed.

Insurance College and YMCA :

In August the convocation of the Madras Insurance College was held at which 40 students were awarded their diplomas and certificates. The importance of insurance in a country without a national social security system was emphasised and the means of bringing this course under the programme managed by the Advisory Council of Trade and Industry explored. The YMCA pattimanram celebrated on August the 30th anniversary of UNESCO recalling its universalism, and its solid contribution to the development

of education, science, culture and mass communications. Also the close links forged by Indian specialists starting with the late Dr. S. Radhakrishnan with UNESCO were emphasised.

Alliance Francais and Kent State Professors :

Alliance Francais organised in August an exhibition of French books and the occasion was used to recall the contribution of French books and literature to scientific precision in writing and thinking, the humanism of its culture and the universality of its civilization. A group of 60 professors from Kent University visited the University in August for an exchange of views on the economic development programme of the country, its achievements and constraints and the problems raised by the growing gap between developed and developing countries.

Mct. Trust, A. L. Mudaliar Sports, Nehru Literacy Award :

During August there was a meeting of the Mct. Trust in the University when it was decided to invite Mr. Gajendragadkar to deliver this year's anniversary lecture and to offer to the university one post doctoral fellowship in space science. Several names were also put forward for the visiting professorship of the university to be financed by the Trust. The month also saw the A. L. Mudaliar silver jubilee inter-collegiate sports meet in the Rajaratnam Stadium, in which 20 colleges participated. The meet saw participants exhibiting their sportsmanship qualities. The college championship were won by Loyola and Stella Maris. The Jury of the Indian Adult Education Association met during the month and nominated the adult educator who is to receive the Jawaharlal Nehru Literacy Award for the year.

University Events:

The first stage of the review of the University administration was completed by the National Productivity Council and its report was handed in. The report is now being studied by the service and departments of the University under the guidance of the Administrative Review Committee. The resulting recommendations will be placed before the syndicate at its September meeting. Simultaneously external expert consultants are visiting the University Departments and assessing their present work and recommending their future development for the 6th and 7th plans. The University staff recreation club held its annual meeting at which the improvements needed for staff amenities and nursing were discussed, University Committee meetings were also held to develop guidelines for community social science, autonomous colleges recommendations, and rural reorientation of the first degree courses by the relevant Board of studies. A national seminar on polymars and a COSIP physical chemistry meeting to develop a question bank in chemistry were also organised in August. A special convocation was held on August 21 at which the Chancellor conferred the degree of Doctor of Laws *Honoris Causa* on Dr. M. Eghbal of Iran. The monthly meeting of the Syndicate reviewed the progress of the implementation of the 3 year policy, making decisions with regard to autonomous colleges and improvement of post-graduate courses in affiliated colleges.

September Development Seminar :

The paper for the September Development Seminar, ' Small Industries ' by Dr. T. C. Mohan, Professor of Economics, Dharmamurthi Rao Bahadur Calavala Cunnan Chetty's Hindu College, Madras, together with a summary of the discussion at the Seminar held on Thursday September 30 under the Chairmanship of Mrs. Sarasvati Nityananda appears as the first article.

Second Article :

A paper, Socio-Economic Problems of Develping Countries, appears as the Second article.

Book Review :

A review by Rev. Fr. Devasya, Professor of Economics, Loyola College, of the MIDS Publication No. 10, 'Rural Employment in Tamil Nadu' by J. Viswanathamurthy and C. L. Narasimhan appears in the book review section.

SMALL INDUSTRIES

By
T. C. MOHAN
Madras

Introduction

The small industry sector has been in the public focus since the formation of the Second Five Year Plan of India in which one of the objectives adopted in the plan frame was the entrustment of the production of consumer goods to the small industry/village industry/handicrafts sector.[1] Since that the development of SSI has assumed a significant importance in the Indian economy and successive plans have allocated increasing funds for its development. As a report of NCAER puts it " Developing small scale industries has been accorded special importance in the country's planning efforts both for economic and social reasons. " The Industrial Policy Resolution, 1956 emphasised the need for integrating the development of the SSI sector with that of the large scale industries. Further it suggested that policies should be so designed as to improve the competitive strength of the small scale producers.

The desirable features of the small scale sector are the following:

a. Capacity to provide immediate large scale employment, in the context of the huge unemployment prevailing in the country.

b. Offering a method of ensuring a more equitable distribution of the national income.

c. Facilitating an effective mobilisation of resources of capital and skill which might otherwise remain unutilised.

During the past decade and a half a systematic attempt has been made to develop the small scale sector through a number of devices which include:

i. Provision of infra-structure facilities for their establishment and expansion.

ii. Supply of machinery and work sheds on instalment/hire-purchase basis.

iii. Offer of finance towards capital and working capital needs at concessional terms through special agencies besides the normal commercial bank channels including the State Bank and other materialized banks.

iv. Reservation of areas of production exclusively for the small sector.

1. Refer: Page 15, Second Five Year Plan A Draft outline.

v. Limiting capacities of large enterprises in certain spheres.

vi. Assisting the small industrial units in their marketing operations through institutional set up like the NSIC and SISI and through a price preference scheme (upto 15 per cent or so).

The small industry sector which was until independence the cinderella of the Indian industry, has successfully attracted the enlarging attention of the Prince, viz. the Govt. and its ills are expected to vanish with this happy wedlock. Unfortunately, the woes of the S.S. sector seem too many and too varied even for the Govt. to solve overnight. Sustained efforts of the Govts. at the Centre and the States will be required and that in the right direction of planning and implementation of policy to see through the present difficulties of the sector and emerge out of the woods.

Plan Allocation to SSI

The Plan allocations to the small scale industrial sector coupled with village industries have been as below in the successive plans.

	All-India	Tamil Nadu (outlay) (Rs. in crores)
	Rs.	
First 5 Year Plan	30 crores	1.55
Second ,,	225 ,,	14.08
Third ,,	325 ,,	22.13
Fourth ,,	Pub Priv 850 crores 450+400 (Public & private sector,	31.00
Fifth ,,	Pub Priv 611+1,050	1,660 crores

The objectives of the Socond Plan included a large expansion of employment opportunities, and a reduction of inequalities in income and wealth and a more even distribution of economic power. It seems that the State had in conformity with these objectives seriously entered upon the development of small scale industries and village industries by allocating 7 times more funds to this sector than in the First plan. This tempo has been kept up ever since and the present position of the small scale industries and their share in the national economy (employment, national product, increase in the number of entrepreneurs etc) have been analysed in this paper in the following pages.

The analysis has been carried out under convenient heads and covers almost all aspects of the present position and development as well as the future prospects of this sector of industry both in the country as a whole and Tamil Nadu in particular.

The paper is divided into nine parts, each dealing with a specific aspect.

Part I is intended to give an idea of the date available for a study of the small scale industrial sector and the present organisation of the sector in the country as well as in Tamil Nadu.

Part II deals with the output in this sector both in gross terms as well as industry-wise.

Part III is concerned with the export potential of the small industry sector and the contribution of Govt. promotion institutional agencies in this field excluding Autonomous agencies. Also the problems in the export field faced by this sector and the possible solutions are analysed.

Part IV is an analysis of the output—Employment co-efficients in respect of small industry in the various sector carried out to show the comparative position of Tamil Nadu in this respect. Besides, the estimates of employment and net output of the small industry in the different States are presented and compared with special attention to the position of Tamil Nadu.

Part V contains an analysis of the Economic ratios for large scale (ASI) and small scale (census and ASI) sectors, bring out the superior advantages that flow from the employment, value added and output aspects of the small industries sector.

Part VI focuses on the existence and extent of idle capacity in the small industries sector and accounts for the same in terms of the dominant causative factors.

Part VII makes an attempt to outline the development of small industries in Tamil Nadu and the role played by SIDCO in assisting and promoting the same.

Part VIII reviews the financial assistance availed of by the small industries in Tamil Nadu through TIIC and the outstandings.

Part IX lists the recommendations which flow from the analysis in various parts of the paper

Part I

Role of the Small Scale Industries:-

In the Indian economy small scale industries have proved in the past to be the haven of those who had only a little capital but much experience or competence acquired in a production shop while working as an employee, in a large manufacturing industry. It is only such of those from the ranks of skilled or semi-skilled labour who had the above requisites besides self-confidence, venturesomeness and the willingness to face risks that joined the ranks of entrepreneurs trying their luck in small-scale ventures/industrial units. Their number used to be small before planned development was ushered in and the industrial policy was modified to encourage indigenous industry, in fact small industry as a maiden had very few suitors until recent times. It was in 1956 that the National Small Industries Corporation Ltd. was set up as a public undertaking by the Govt. of India as a result of its realisation that for an agricultural economy like ours with 70 to 80 per cent of the population dependent upon land for their livelihood, small scale industries would go a long way in solving India's socio economic problems. In addition, the lot of the urban poor would be capable of betterment only through creation of large employment opportunities for them through the organisation and development of the small industrial sector. This is so, because of the capital intensive nature of large scale industries (including medium industries) which involves the use of machines for performing most of the operations of production and hence provides only limited/meagre employment opportunities to the unemployed urban/rural poor. Therefore, small-scale industries have been accorded special importance in the country and their growth has been fostered over the years through various incentives such as preferential treatment in respect of credit and marketing, offer of machinery on hire purchase and provision of technical assistance.

A small scale industry unit is defined as one whose capital in fixed investment in plant and machinery does not exceed Rs. 10 lakhs. In the case of ancillary units, the ceiling is fixed at Rs. 15 lakhs. This definition has been adopted since 1975. The earlier limits being Rs. 7.5 lakhs and Rs. 10 lakhs respectively. The contribution of the small scale industry to the country's domestic product and employment is substantial. This is evident from the claim based on available statistics that around 50 per cent of the value added by the manufactring sector in the country originates in the small scale enterprises.

Statistical gap:

Precise quantification of the extent of contribution of the small scale industrial sector to the national product is rendered difficult by the lack of sufficient statistical data. Further very little is known on the economics of operation of most of the small enterprises in our country. Though some information could be called out from the data available in the Annual Survey of Industries it is neither comprehensive nor up-to-date. It is rather surprising that inspite of so many years of active promotion of small industries in this country, and a plethora of agencies involved in small industries promotion even the number of small industrial units in existence and their number actively in operation was not precisely known until now.

Reading the great importance of a systematic and detailed examination of the operations of the small scale industries in the country and the urgent need for the collection of precise statistical data to enable more efficient planning of their development and undertaking suitable administrative policies and executive measures, the Development Commissioner Govt. of India was recently asked to conduct a comprehensive census of the small industrial units in the country. Statewise, as per the suggestions of the Estimates Committee of the Lok Sabha as well as small scale Industries Board and under the guidance of a committee of experts. This census was conducted in 1974 with the reference list of units as on the register of the State Directorates of industries upto 31-12-1973. The reference year for the data related to the year 1972-73.

Organisation of the Industry :

The census which required visits to nearly 3 lakh addresses on the State Directorates of industries revealed that certain units were permanently closed, some were not traceable, some did not respond, some were outside the purview of Small Industries Development Organisation (SIDO) industries and some had started so recently that they were not able to supply full year data.

TABLE 1

CENSUS COVERAGE OF SMALL INDUSTRIAL UNITS (SIDO) IN THE 1974 CENSUS

	Nos.	Percent	Tamil Nadu
1. No. of units covered in the census	2,99,186	100	28,910
2. Not traceable	32,315	11	4,421
3. Traceable but permanently closed	66,161	22	5,942
4. Not responding	5,535	2	549
5. Functioning after 1972	14,209	5	1,996
6. Others (outside SIDO's) purview, duplicate registration, proposed, etc.)	41,389	14	—
7. For which data tabulated	1,39,577	46	16,002

Source : All India Report on the census of small scale industries, Vol. I pubd. by Development Commissioner SSI, June 1976.

It is reported that on the basis of enquiries in Maharashtra it appears that ¼ of the non-traceable units are in existence; also it is clear, as per enquiries, that a significant percentage of non-traceable units cannot be termed as bogus units, viz. units not in existence and which have mis-utilised raw materials and other facilities. This is to be confirmed by enquiries conducted in other States including Tamil Nadu.

As per the above census there have been only 28,910 units registered in Tamil Nadu by 31-12-73. But revised figures for Tamil Nadu as on 31-7-76 have been just made available, district-wise as below, by the State Directorate, which gives a clear picture of the spread of registered units over the area of the State.

TABLE 2

TOTAL NUMBER OF REGISTERED UNITS IN TAMIL NADU—DISTRICT-WISE AS ON 31-7-76.

Name of the district	Total No. of Regular units	Total No. of Temporary units	Grand total	
1. Madras City:				
i. South Area	1,825	1,878	3,703	
ii. North Area	1,249	2,384	3,633	
iii. Central Area	1,985	3,229	5,214	It may be seen
2. Chingleput	1,865	2,918	4,783	that 42 percent
3. North Arcot	1,580	510	2,090	of the units in
4. South Arcot	379	279	658	the State are
5. Salem	1,629	589	2,218	concentrated in
6. Dharmapuri	248	363	611	Madras city,
7. Coimbatore and the Nilgiris	1,952	1,759	3,711	Chingleput dist. and Coimbatore.

Name of the district	Total No. of Regular units	Total No. of Temporary units	Grand total
8. Thanjavur	872	1,619	2,485
9. Tiruchirapalli	984	568	1,552
10. Pudukottai	344	151	495
11. Ramanathapuram	1,216	1,505	2,721
12. Sivaganga	273	307	580
13. Tirunelveli	900	269	1,169
14. Nagercoil	260	97	357
15. Madurai	1,769	934	2,703
Total	19,330	19,353	38,683

Source : Official records, Director of Industries, Tamil Nadu

It is noteworthy that in the census mentioned above, an attempt has been made to arrive at new estimates of production in the small scale sector on the basis of the census figures. The Annual Survey of Industries collects information on a regular basis on only one segment of the small industrial sector, namely, those units registered under the Factories Act. This excludes from its purview all manufacturing units employing less than 10 persons using power and less than 20 without using power, a stratum whose economic contribution is generally believed to be large. In the absence of a complete enumeration by ASI of the small scale units, the only basic source for eliciting information on small scale factory establishments is the separate analysis made by ASI in respect of the size of the establishments covered by its survey. But even here there is a long time lag normally involved in publishing these estimates which detracts from their usefulness for current policy formulation. Further, difficulty arises in regard to the ASI data due to the non-comparability over time of its figures on account of the changes in the defination of a small enterprise from time to time. (In 1965: ASI defination of small industry was on the basis capital investment of Rs. 5 lakhs; later it was Rs. 7.5 lakhs, now it is 10 lakhs). In effect it has been estimated that the share of the small scale sector in ASI production has been about 30 per cent only. This is because the ASI data covered only about 56,000 small scale industries while the known information about registered small industry units was above four times this number for which ASI data were available. Besides the latest available summary results for the small scale sector factories in the ASI are only for the year 1970.

It is, however, admitted that the new figures collected in the recent census of the Development Commissioner cover only the sector within the purview of SIDO. This, by definition, excludes nearly 22 types of small industries. Establishments which had not registered with State Directorates of Industries are not covered due to non-availability of addresses.

Part II—Output in S.S.I. Sector

The Development Commissioner, Small Scale industries has worked out the

direction of growth in the small scale sector since the census of 1972 on the basis of new registered units as the scheme for collection of quarterly production returns introduced in 1959 for the small scale sector could not be successfully implemented due to lack of response from the units and also lack of resources at the State level for adequate follow up. The figures of production for 1973, 1974 and 1975 which are worked out using macro level indicators provided by the census data and growth in registration in subsequent years, are intended to plug the void in production statistics. The following table reveals the contribution of the small scale sector in the total industrial sector (large and small). The gross value of output in the small scale sector was estimated at Rs. 2,901 crores in 1972 on the basis of the census.

TABLE 3

PRODUCTION IN THE SMALL-SCALE INDUSTRY SECTOR—ALL INDIA

Industry	Value of Production (Rs. in crores)			
	1972	1973	1974	1975
1. Organised sector (DCTD) *(262 industries accountive for about 60% weight of the manufacturing sector)	5,500	6,170	7,900	N.A.
2. Small Scale Sector	2,900	3,400	4,900	5,700
3. Total (1)+(2):	8,400	9,570	12,852	—
4. Small scale sector: as % of (3):	35	36	38	—
5. Percentage increase of				
(a) (1) over the previous year	—	12	28	—
(b) (2) over the previous year	—	17	44	16

Source : All India report on the census of small scale industries, Vol. I, pubd. by Development Commissioner S.S.I., June 1976

It may be noted that the growth in the value of output in the small scale sector has exceeded the growth in the organised sector in both 1973 and 1974. Probably the growth rate in 1975 might also have been higher in the small scale sector, though the figure for the organised sector is not available, as 1975 has been known to be a year of meagre growth in the organised sector.

Production in the small scale sector of reserved items (198) for the year 1970, 1971 and 1972 have also been estimated on the basis of the census data for the reference year 1972. The value of production for the reserved items in three years has been Rs. 394.78 crores in 1970, Rs. 477.98 crores in 1971, and Rs. 607.09 crores in 1972.

* Refer : Annual Report (DGTD) 1972-73.

The data relating to production in 1970, 1971 and 1972 item-wise for about 2,500 products (codes) in the small scale sector were collected in the census of small scale industrial units. The total output in the sector during these three years was Rs. 1,593 crores, Rs. 1,992 crores and Rs. 2,602 crores respectively excluding non-reporting and traced units for which estimates have been made.

It may be guessed from the above figures that the percentage of the value of the output of reserved items has been 23.3 per cent of the value of the output of all items (2,500 products) in the small scale sector in the year 1972. The value of outputs of these items has been increasing by 21 per cent in 1973 over 1972 and 27 per cent in 1972 over 1971.

Further it is revealed by the census that in the case of about 300 items produced in the small scale sector the value of the production in each item in 1972 was more than Rs. one crore. The total contribution by these products was Rs. 2,000 crores.

Another interesting aspect ot production in the small scale sector is, by broad industry classification, the estimates of the value of production in 1973, 1974 and 1975 show that chemical industries, metal products, basic metal industries and machinery and parts account for 50 per cent of the value of output in the sector.

The following table shows the estimated gross output (Rs. crores) in Small Scale Sector—industry-wise.

TABLE: 4

ESTIMATED GROSS OUTPUT INDUSTRY-WISE *(Rs. crores)*

Industry	1972	1973	Growth % over 1972	1974	Growth % over 1973	1975	Growth % over 1974
1. Food Products	169.8	217.1		303.1		366.0	V
2. Beverages	8.3	6.9		12.9		13.7	X
3. Hosiery & Garments	173.3	200.9		267.1		270.0	
4. Wood Products	114.3	138.1		185.1		197.8	
5. Paper products & Printing	140.9	159.9		198.2		233.0	
6. Leather & Products	98.7	113.5		172.4		217.5	
7. Rubber & Plastic products	168.5	186.0		251.0		306.8	VIII
8. Chemicals	386.7	448.1		655.8		779.7	II
9. Glass & ceramics	140.0	167.9		242.2		284.1	IX
10. Basic Metal Industry	328.0	394.4		517.4		611.8	III

	Industry	1972	1973	Growth % over 1972	1974	Growth % over 1973	1975	Growth % over 1974
11.	Metal Products	522.7	627.5		908.8		1,064.3	I
12.	Machinery & Parts	234.7	270.9		463.8		532.1	IV
13.	Electrical Machinery & Equipment	169.2	195.9		300.4		351.1	VI
14.	Transport Equipment	150.3	173.6		294.7		338.9	VII
15.	Miscellaneous Industry	69.9	84.8		116.9		127.9	
16.	Job work, repair & servicing	25.9	31.4		43.0		46.7	
	Total	2,901.2	3,419.9		4,932.0		5,742.2	

Source: All India report on the census of small scale industries, Vol. I, pubd. by Development Commissioner, Small Scale Industries, Ministry of Industry and Civil Supplies, June 1976.

It is to be seen from the table that the pride of place in gross output goes to metal products with Rs. 1,064.3 crores in 1975. Chemicals come second with Rs. 779.7 crores in the same year; Basic metal industry, is third with Rs. 611.8 crores, machinery and parts take the fourth place with Rs. 532.1 crores; fifth is food products (Rs. 366.0 crores); sixth comes electrical machinery and equipment (Rs. 351.1 crores); transport equipment, seventh (Rs. 338.9 cr); rubber and plastic products is eighth (Rs. 306.8 cr); glass and ceramics occupies ninth place (Rs. 284.1cr); hosiery and garments is tenth (Rs. 270.0 cr.); more than 50% of the entire output is seen to be accounted for by the first four industries, viz, match products chemicals, basic metal industry and machinery and parts.

Part III—Role of Small Scale Sector in Exports

TABLE 5

EXPORTS OF THE SMALL SCALE SECTOR—SHARE IN TOTAL EXPORTS 1973-76

Year	Exports including re - exports (FOB Value) Rs. in crores	Exports of the Small Scale Sector	Exports through the N.S.I. Corpn. Ltd. (Rs. in lakhs)
1973-74	2,523.4	——	
1974-75	3,253.0	400.0	15
1975-76	4,000.0 (Expected)		30 (Expected)

Source: National Small Industries Corporation Ltd., Souvenir, 1976.

It may be seen from the table that the exports of the small scale sector in the year 1974-75 worth Rs. 400 crores out of the total exports of Rs. 3,253 work out to only 12.3 per cent. As the total value production in the small industrial sector is nearly 40 per cent of the total value of output in the organised industrial sector, the exports of the small industrial sector should be normally expected to be commensurate with its proportionate share in Indian industrial sector. Much therefore remains to be done to bolster up the export share of the small industrial sector.

The National Small Industries Corporation Limited, has made a laudable attempt in recent years to assist the small industrial sector with export promotion efforts as a developmental and promotional measure rather than a purely commercial venture. Its successful debut into the export trade within the existing framework of its 'Marketing Division', with a modest achievement of Rs. 30 lakhs worth of exports in 1975-76, and its ambition to multiply its exports acting as s 'Recognised Export House' is a measure of its dedication to the cause of small industry in India.

It needs to be emphasised that the development of small industry and full exploitation of their export talents/potentialities is a long march and will need concerted efforts at all levels.

What seems to hamper the entry of small scale industries into export trade in a big way may be listed as :

(i) Lack of knowledge of export trade and consequent inability to work out export pricing,

(ii) Cumbersome and complex system of export formalities and lack of knowledge of rules and procedures and the documentation system,

(iii) Lack of resources, particularly for the purpose of product development for exports.

(iv) Lack of contacts with the foreign buyers and information about the specific products and markets effective for export operations,

(v) Lack of quality consciousness and the inability to adhere to the quality of approved prototype/sample.

(vi) Lack of credit facilities for working capital needs.

It has been pointed out by the NSIC that many of the Indian products from the small scale sector inspite of being relatively cheaper in the foreign markets do not enjoy substantially potential demand because of lack of product image. It is suggested that to gain such a product image, it is necessary to actively participate in international exhibitions/trade fairs and arrange buyers/sellers meet overseas. This will help in creating demand as well as image of the small industry products in the foreign markets. Further, sponsoring special export promotion tours of small industrialists to foreign markets to book business to cater the specific needs of foreign markets is underlined by the NSIC. The provision of after-sales-service will play a very significant role in procuring expanding markets for the products of S.S.Is in foreign markets, particularly in Africa, Asia and Far East.

Besides the above, the S.S.Is suffer from an acute shortage of working capital, especially in the present context of the credit squeeze.

Quality control measures should be vigourously implemented in the export sector especially in the matter of SSI products so that minimum acceptable standards are laid down and strictly enforced.

Part IV—Output - Employment Co-efficients in SSI

TABLE 6

Output-Employment Co-efficients in respect of Small Industry in various States as on 1960-61 are given below:

Ranks	State	Output Employment Co-efficient (Rs.)	Index All States = 100	Factory establishments.
1	Delhi	1,870	290	
2	Punjab	1,386	215	
3	Himachal Pradesh	1,180	183	
4	West Bengal	1,161	180	
5	Gujarat	1,151	178	
6	Maharashtra	967	150	In prospect of
7	Kerala	670	104	large Industry
8	Mysore	597	93	Madras occupied
9	Assam	567	88	the 8th rank
10	Madras	560 (3,004)	87	with figures
12	Uttar Pradesh	472	73	in brackets
14	Bihar	456	71	
18	Andhra Pradesh	270	42	

Source : Occasional Paper No. 8: Income Structure of Manufacturing Industry 1960-61, NCAER, Delhi.

It is revealed that the Output-Employment Co-efficient for Madras has been below the All India index of 100 and is less than that by 13 points. This shows the need to pull up the co-efficient by more efficient organisation, better technical knowledge and modern techniques of production. What Myrdal has recommended in his 'Asian Drama' is regard to small industries in Asia seems to be relevant here.

It is surprising that even in respect of factory establishments' O-E-C, Madras occupied only the 8th rank in that year.

TABLE 7

The following table presents the estimates of employment and net output of small industry for different States for 1960-61

States	Net Output (Rs. '000)	Percentage distribution All India = 100	Employment Numbers	percertage distribution All India = 100	Remarks
Madras	10,02,955	10.6	1,792,409	12.2	All other States
Maharashtra	13,81,966	14.6	1,428,906	9.7	have still lower
West Bengal	12,78,355	13.5	1.101,143	7.5	net output
Uttar Pradesh	9,34,287	9.9	1,980,934	13.5	percent.
Punjab	9,50,245	10.0	685,442	4.7	
Gujarat	6,54,300	6.9	568,588	3.9	
Andhra Pradesh	4,78,871	5.1	1,775,827	12.1	
All States	94,73,352	100.0	14,696,753	100 0	

Source : Occasional Paper No. 8, ibid of NCAER, Delhi.

It may be seen from the table that in respect of net output Madras stands third highest with nearly Rs. 100 crores, below Maharashtra with about Rs. 138 crores and West Bengal with about Rs. 128 crores.

With regard to employment presented in the small industry sector, Madras stands second highest with about 18 lakh persons engaged in it, next only to Uttar Pradesh with about 20 lakh persons.

It should be pointed out that though Maharashtra has the highest net output of 14.6% in the total for the country, its employment is only 9.7 %of the total for India, this shows the higher productivity of small industry in Maharashtra than in most other States. Punjab and Gujarat are even higher than Maharashtra with employment percentages only about half of the net output percentages. Madras lags behind in this respect with almost 1:1 proportion between employment and net output percentages. The pointer here is that much needs to be done to pull up productivity of small industry in Tamil Nadu.

In recent years the SIDC Limited has set up prototype development cum Training Centres in Madras for engineering and leather manufacture to improve productivity in the industries in Tamil Nadu through better training, technical knowhow and modern techniques. The same should be extended to other industries too. The small Industries Service Institute in Madras is also engaged in training entrepreneurs, improving methods of production and quality of products. This should be organised as a major drive with well qualified technical, economic and marketing experts and consultants whose knowledge should be constantly updated.

Part V—Economic Ratios for Large Scale (ASI) and Small Scale (census and ASI) Sectors.

TABLE 8

The Table below gives an idea of the economic ratios in the large scale and small scale sectors of the Indian economy.

Item	Census 1972	ASI - 1969		ASI - 1968	
		Large Scale	Small Scale	Large Scale	Small Scale
1. No. of Uuits	1,39,577	4,371	55,815	4,092	51,729
2. OUTPUT Fixed Investment	3.28	1.18	5.92	1.10	5.28
3. VALUE ADDED Fixed Investment	1.06	0.03	0.97	0.27	0.82
4. WORKERS Fixed Investment (for Rs. 1 lakh)	17	4	26	4	27
5. WORKERS All Employees	0.82	0.79	0.83	0.81	0.86
6. WORKERS' WAGE-BILL All employees' emoluments	0.84	0.64	0.70	0.64	0.68

Source : All India Report on the Census of Small Scale Industries by Development Commr. SCI,—Delhi 1976.

A few important conclusions emerge from the above ratios as pointed out in the Census report :

(i) Output per unit of investment is higher in small scale sector than in the large scale if we take either the ASI small scale sector or the Census small scale sector. It is almost three times higher if we compare ASI the large scale with the Census figures. If the ASI figures for both is alone considered the ratio is almost 5:1. This brings out the greater benefit to the National product of the country from investment in the small scale sector as compared with the contribution from the large scale sector.

(ii) A similar but huge advantage emerges in favour of the small scale sector even in respect of the value added per unit of investment. In the small scale sector the value added is almost 35 times that in the large scale sector if we take the figures for ASI 1969 and Census 1972. This greatly reinforces the comparative advantage in favour of the small industry.

(iii) In respect of employment potential also the SSI has a predominant advantage over the large scale. For every Rs. one lakh of investment SSI provides employment for 17 to 27 persons as against only 4 in the large scale sector. The ratio is about 24:1.

(iv) In the matter of total employment of workers and their wage-bill the ratio is more in the small scale sector than in the large scale.

Thus on all counts the SSI sector makes a greater contribution to the economy.

Part VI—Extent of Idle Capacity in the SSI

TABLE 9

The Table below shows the extent of capacity utilisation in selected units : 1969-70.

Name of product	Reporting units	Capacity utilisation Below 30	31-50	51-80	Above 80
Agricultural implements	9	4	2	2	1
Auto Ancillaries	11	1	5	2	3
Cycles and Components	4	1	1	2	-
Electricals	11	3	4	2	2
Electronics	3	2	1	-	-
Batteries	2	1	-	1	-
Light Engineering	12	3	1	5	3
Hardware	6	-	3	1	2
Steel furniture	4	2	1	1	-
Utensils	4	-	2	2	-
Plastics	9	2	1	2	4
Rubber Products	5	-	2	3	-
Scientific Instruments	5	1	1	2	1
Surgical and hospital equipment	3	2	-	1	-
Paints and Varnishes	4	1	1	1	1
Pesticides and agri-chemicals	1	1	-	-	-
Hosiery	2	-	1	1	-
Printing	4	-	-	3	1
Food Processing	5	-	5	-	-
Timber-based industry	1	-	-	1	-
TOTAL	105	24	31	32	18

A study of idle capacity in SSIs in T. Nadu has been undertaken as part of the All India Census and it revealed that out of 16,000 units covered about 1,500 units or about 10 per-cent of the units were found to be working below 20% of their capacity as per information provided to the author by the Directorate of Industries.

Source : Study of Selected Small Industrial Units, NCAER, 1972 (per cent)

The figures in the table bring out the position with regard to the idle capacity existing in the small scale sector. The extent of idle capacity is disconcerting in that out of 105 reporting units about 24% were working below 30 percent capacity, about 29 percent units between 31 and 50 percent capacity, another 30 % units between 51 and 80% capacity and only 17 percent working at about 80% capacity. Cumulatively, above 50% of the units are working below 50% capacity. This situation should be seriously viewed and remedial steps taken without delay so that contribution of the SSI sector to employment as well as to the domestic national product could be stepped up to the fullest possible extent. This is urgent especially in view of the present large scale unemployment in India.

Reasons for idle capcity:

An analysis of the reasons for such idle capacity has been made and the contribution of each of the major factor to idle capacity is reviewed.

Among the more important causes of idle capacity the following figure prominently (in the descending order of importance).

1 Storage of indigenous raw materials

2 Storage of imported raw materials

3 Inadequate finance

4 Lack of demand

and

5 Obsolete equipment

If the availability of raw materials and credit facilities could be considerably improved a large proportion of the idle capacity could be easily eliminated.

As for demand, the production of quality products at prices cheaper than the prices of similar products of large scale industry, the creation of suitable marketing consortia for small scale industry, exhibitions and buyers/sellers meet, export drive and diversification of production would go a long way in solving the problem. NSIC Limited and SISI's could assist in the organisation of these besides the State agencies. The financing bankers and financial institutions too could help in organising these for the benefit of their customer - borrower - industrial units.

Part VII—Role of SIDCO in Tamil Nadu:

A Assistance toward procurement of raw materials:

The Tamil Nadu Small Industries Development Corporation Limited, an undertaking of the Government of Tamil Nadu (popularly known as SIDCO) has been, since its inception in 1970, rendering varied and significant assistance to the registered small industries in the State in the following ways:

- Effective procurement and equitable distribution of essential raw materials required by small industrial units.

- Supply of machinery required by small industries on Hire Purchase basis.

III Construction of worksheds and making them available to industries on Hire Purchase basis.

IV Offer of technical consultancy for new entrepreneurs who desire to set up small industries and preparation of Technical Feasibility Reports for new projects.

V Offer of marketing assistance to Small industries

VI Consolidation of import licences of small scale industries and effecting bulk import against them and promotion of exports.

TABLE 10

VALUE OF RAW MATERIALS DISTRIBUTED BY SIDCO

Year	Value (Rs. in lakhs)	Growth rate of the value of raw materials distributed
October 1970 to March 1971 (5½ months)	106.58	
1971-72	379.19	
1972-73	417.89	
1973-74	576.10	
April 1974 to December 1974 (9 months)	602.43	

The growth in the value of the raw materials supplied from 1970 may be taken as indicative of the growth rate of production in the small scale sector (registered) in the State. However there are severe limitations on such an assumption for the following reasons:

a Changes in the price level of the raw materials from time to time.

b Except in the case of scarce controlled raw materials of iron and steel, zinc, calcium, caustic soda, coke, pig iron etc. which are of indigenous origin, the quantities value of which may truly represent the growth in production, the value of imported raw materials may be dependent upon the value of the import licences cleared, the availability of these in the exporting countries, etc.,

c The availability of some of the raw materials at short notice in the black market would have been taken advantage of by some proportion of the units as the normal channel of distribution through SIDCO would have involved long delays.

d A certain number of bogus units would have resold the supplies

obtained by them through SIDCO in the black market to earn windfall profits.

B. In the sphere of Hire - Purchase of machinery, the number of entrepreneurs assisted by SIDCO is 1,262 and the value of this type of assistance is Rs. 613.60 lakhs. This includes 69 cases sanctioned under TIIC - SIDCO consortium scheme during 1974.

TABLE 11

HIRE-PURCHASE OF MACHINERY THROUGH SIDCO

Period	No. of persons benefited	value of assistance rendered (Rs. in lakhs)	rate of growth
14-10-1970 to 31- 3-1971	11	7.62	
1- 4-1971 to 31-3-1972	154	75.91	
1- 4-1972 to 31-3-1973	401	173.11	
1- 4-1973 to 31-3-1974	569	232.76	
1- 4-1974 to 31-12-1974	127	184.23	
	1,262	673.63	

Source: SIDCO Industrial Estate (CBE) Inauguration Souvenir, 1975.

It may be admitted that the value of the hire-purchased machinery through SIDCO should be taken as a more reliable indication of the growth of capacity in the small scale secctor than the value of the raw materials supplied mentioned earlier. This is inspite of the rise in the price index of capital machinery from year to year.

It is seen from the table that there has been a progressive increase in the value of machinery procured with the exception of the year 1974 during which the value of the machinery supplied has fallen by about one fourth. This is probably indicative of the condition of slump in the market for the goods of the small-scale sector, besides the rise in the rate of interest chargeable on hire-purchase consequent on the rise in the bank rate of the Reserve Bank. It is only under the new scheme of "TIIC-SIDCO consortium scheme" with effect from 1-4-1974 that a liberalised scheme has been introduced to assist the entrepreneurs for purchase of machinery and for construction of sheds, with a reduced margin of only 10 %, the other 90% of the value of all fixed assets viz., land, building, plant and machinery being financed by the

TIIC. The rate of interest charged on this assistance will be only 10½% (9% only in the case of backward areas). Further the repayment is spread over a period of 8-14 years with a moratorium of 2 years (4 years in the case of Backward areas).

Though the small entrepreneurs seem to prefer this consortium assistance to that from alternative sources like the commercial/nationalised banks, as the rate of interest charged for the consortium assistance is only 10½% whereas the rate of interest payable on advances/loans from commercial banks (including the State Bank and Nationalised Banks) is around 14½ to 16½ per cent, about 4 to 6 per cent more, a tendency on the part of entrepreneurs to stay away from the former has been noticed in the past due to the cost involved in the delays that are usually incidental to the formalities to be gone through before the consortium assistance is realised. Cutting down such delays in the grant of consortium assistance at least to a level not exceeding that involved in the formalities of the commercial banks would act as a great incentive to the entrepreneurs to go in for the consortium assistance more and more in view of the cost advantages of a reduced interest rate.

C. SIDCO's Workshed Assistance:

A major line of assistance provided by SIDCO to the new entrepreneurs is the hire-purchase scheme of SIDCO for the construction of worksheds, started in December 1971, to take care of one of the vital needs of the small scale industry. The worksheds are constructed tailored to the special needs of each of the entrepreneurs and made available on easy instalment terms spread over a period not exceeding 16 equal half yearly instalments, a moratorium of two years from the date of completion of the building being permitted for the repayment of the loan together with interest at 14½ per cent.

The maximum assistance rendered to an entrepreneur under this scheme is to the tune of Rs. one lakh; but in the case of industries of special nature, this may be increased upto Rs. 2 lakhs. Assistance may be availed of in either of the following two types :

(a) Construction of workshed by SIDCO in its own land according to the needs of the entrepreneurs idientified before hand.

(b) Assisting entrepreneurs who propose to construct worksheds in their own lands.

A special incentive is given to the unemployed engineering graduates and technocrats to acquire worksheds by waiving the payment of the initial margin money stipulated under the scheme.

SIDCO has so far established worksheds in its industrial estate at Ambattur, Kurichi near Coimbatore, Tiruverambur near Tiruchirapalli and Ranipet by March 1975.

TABLE 12

INDUSTRIAL ESTATES—No. OF WORKSHEDS CONSTRUCTED AND PROPOSED.

Name of the Industrial Estate	No. of sheds constructed	Estimated Cost (Rs. in lakhs)	No. of entrepreneurs benefited	Remarks
1. Ambattur Industrial Estate	114	89	114	The total no. of sheds including proposed total : 546. The total cost : 451.46 lakhs: Total no. of entrepreneurs benefited : 546
2. Thiruverambur, Trichy (Ancillary Estate)	12	24	12	
3. Kurichi, Coimbotore (Textile Ancillary Estate)	26	16.14	26	
4. Ranipet Industrial Estate	12	10.50	12	
5. Construction of worksheds on Party's land	128	84.82	128	
	292	224.46	292	

Proposed for future construction :

1. Tiruppur (Coimbatore)	100	75
2. Mathur (Pudukkottai)	8	12
3. Ponnamaravathi (Pudukkottai)	10	8
4. Ranipet	15	12
5. Ambattur	49	50
6. Coimbatore	50	50
7. Tiruchy	10	8
8. Poomphuhar	12	12
	254	227

Source : SIDCO Industrial Estate (Coimbatore) Inauguration Souvenir 1975

Directorate of Industries :

It is reported that steps have already been initiated by the State Department of Industries and Commerce to acquire a vast area in Hosur, Dharmapuri district to put up a large industrial estate with World Bank's assistance as it is considered the most backward area in the State. This will be a composite estate providing for different lines of manufacturing units.

Besides the above, the Department has under its aegis two functional industrial estates, one exclusive for Electronics at the Instronics Campus near Adyar (Vikram Sarabhai Electronics Estate) with about 50 units at present (likely to be expanded further), another exclusively for finished leather at Madhavaram Industrial Estate. It is proposed to organise an industrial co-operative for finished leather production near Ambur to cater to the needs of a hundred small leather manufacturers. An electronics industrial estate is visualised at the proposed new township of Maraimalai Nagar on the outskirts of Madras city.

It is noteworthy that the Department of Industries has taken the initiative to acquire land and develop the same into industrial estates for exclusive lines of manufacture by small industries, thereby avoiding the delays and bottlenecks in either a company like SIDCO or any other organisation involving itself in the complex formalities of acquisition or purchase of land.

D. Ancillary Development :

A fruitful line of development for the small scale industrial sector will be the establishment of units near large manufacturers in the private or public sector to cater to their needs for components of various kinds, job works and servicing required by them. These large units cannot by themselves provide for all those as it would entail additional investment of capital as well as organisational problems besides cost escalation due to additional infrastructure.

Further, the new entrepreneurs, who are normally thrown to the winds in the matter of marketing their products in the absence of marketing organisations of their own which they cannot afford to maintain, will be provided with assured markets by the large industries to whom they are approved ancillaries. In some cases the large industries could provide besides the market the technical know-how as well as scarce raw materials required by their ancillaries, thus solving the three major problems which baffle or frighten intending small entrepreneurs. Such an arrangement is the very haven of diffident entrepreneurs who are otherwise qualified or competent to run a small scale unit.

SIDCO has already pursued this line of action to develop ancillary industries throughout Tamil Nadu. It has already constructed an industrial estate at Ambattur to serve exclusively as an ancillary to T. I. Cycles of India SIDCO and T. I. Cycles have jointly made a selection of 19 entrepreneurs (most of whom are technocrats) for this estate with an eye on the efficiency and workmanship required for the manufacture of quality products.

Another Ancillary industrial estate has been completed at Coimbatore with special stress on the manufacture of Textile machinery spares.

A third Ancillary estate has been established at Tiruchi with the direct involvement and encouragement from Bharat Heavy Electricals, providing for 12 sheds at an estimated cost of Rs. 24 lakhs. In addition, one estate at Mathur (Pudukkottai district) is being established to cater to the needs of the BHEL.

Future development of Ancillaries :

It should however be stated, as admitted by SIDCO, that quite a lot remains to be done in the area of development of Ancillaries to large manufacturers/ large scale industries either in the Public sector, Joint sector or Private sector. The development of such ancillaries is not a simple problem and in fact it bristles with numerous difficulties, some of which may be listed as below :

a A systematic study should be made of the potentialities for the development of ancillaries in and near all those large industries whose capital investment exceeds Rs. 25 lakhs (i.e. medium/large industries)

b Such medium/large industries should be persuaded to shed as many as possible of their present components/activities to be exploited by small units as ancillaries.

c All future expansion of medium/ large industries should be cleared by the DGTD only after a thorough technical study/examination of the possibilities of letting in small scale units to carry out the required manufacture.

It is surmised that at present the DGTD does not have competent calls to carry out such studies before permitting such expansion of facilities by medium/large industries.

d Medium/large industries should not be permitted to preempt the possible fields of manufacture fit for small scale units. This can be ensured at the stage of industrial licensing by excessive sufficient scrutiny by the DGTD.

e The Development Commissioner, Small Scale Industry should be associated with the DGTD in the matter of clearance of new industrial units or expansion of units even in the medium and large scale sectors.

f Preference may be shown in the matter of purchases for Government departments to those industrial units which have farmed out the components or sub assemblies to ancillary units of small industries.

g One of the essential conditions for licensing new units or additional capacity in the large industrial sector should be the provision by the units for small scale ancillaries around them to supply components, provide jcb works or servicing.

E Consultancy and Preparation of Project Reports:

SIDCO attempts to organize beneficial consultancy service to provide the interested entrepreneurs with good project reports prepared by the professional consultants ; besides it professes to give guidance and advice to sick units to organise themselves on right lines for which purpose a coordinating consultant has been appointed

by it. It has proposed to have a band of consultants for each discipline so that problems can be referred to these exports for advice as and when they arise. These exports are also to be utilised for preparing detailed project profiles for each district based on the techno-economic reports already prepared.

Also SIDCO assists the new entrepreneurs for initiating feasibility studies for specific projects in the small scale sector under liberalised terms of assistance which requires entrepreneurs to pay only a margin of 10% of the cost of preparation of the feasibility report upto Rs. 10,000 and 20% if the cost exceeds Rs. 10,000. The balance amount will be met by subsidy from out of co-funds of SIDCO/ grant available from the Government of India. SIDCO has already prepared feasibility studies in the field of Electronics for the benefit of prospective entrepreneurs and so far 24 feasibility reports have been prepared for utilisation by the entrepreneurs. About 10 units are under implementation and six more are expected to be set up after approval from the Central Government.

Here too SIDCO should take care to see that the project reports and feasibility studies prepared by its consultants and band of exports are constantly updated as most of these become rather outdated by the time an entrepreneur gets interested in making use of them.

SIDCO is also entrusted with the Government of India's outright grant or subsidy scheme in so far as it relates to the Small Scale Industries in the State. With effect from 1-4-1974 under this scheme new industrial units to be set up in any one of the 27 identified backward areas in Tamil Nadu will be given an outright grant or subsidy equivalent to Rs. 1,590 of fixed capital investment. Since 1-4-1974, 72 small scale units have availed of this subsidy through SIDCO. From the inception of the scheme in 1972, 184 small scale units have been granted this subsidy.

F Educated unemployed and Technocrats

SIDCO has so far assisted 305 educated unemployed persons for purchase of machinery and for construction of worksheds which includes 251 technocrats. These candidates are provided with a special concession in hire-purchase scheme in that they are given 100% financial assistance for purchase of machinery as well as for construction of worksheds. Thus the payment of margin money prescribed is waived in their case.

Without detracting from the services of SIDCO and its various laudable schemes of assistance to new entrepreneurs, it should be pointed out that since its inception in 1970 it has been able to assist only 1,262 small scale entrepreneurs under scheme for the hire purchase machinery to the extent of Rs. 673.63 lakhs and provide worksheds to only 546 small entrepreneurs at a cost of Rs. 451.46 lakhs. The total value of assistance rendered on these two counts totals upto Rs. 1,125.09 lakhs or Rs. 11.251 crores. On an average it works out to roughly Rs. 281.27 lakhs of assistance per year. This cannot be deemed sufficient from the point of view of what is required to be done in the State to really make a dent on unemployment among the technocrats and the educated. Its socio-economic impact should be much more impressive and SIDCO should undertake a really effective

drive to rope in every year at least a minimum of 10% of the roughly 36,700 graduates made up of 29,000 with degrees in Science, Arts, Engineering etc., 400 with degrees in Agriculture, 3,800 with diplomas in Engineering and Textiles and 3,500 with I. T. I. certificates, who come out of our educational mill and want to engage themselves in gainful employment, (paid-employment/self employment). Or, it should aim at setting up in self employment in small scale industries at least 25% of the output of the engineering colleges (about 6,000), Polytechnics (about 3,800) and Agricultural Colleges (about 400) per annum. It may mean turning about 2,500 young graduates in technical and professional courses into entrepreneurs in the small scale industrial sector. Such a target is not only desirable but may become feasible given better co-ordination at all levels, avoidance of delays in completing formalities, elimination of inter-correspondence of a routine nature, stipulated daily progress in processing applications, forming teams of consultants, experts, financiers, machinery suppliers along with intending entrepreneurs who will work together, if necessary by staying together during the working hours in a project office in which all relevant activities will be concentrated. A frequent complaint is that intending entrepreneurs get easily frustrated at the avoidable delays and procedural ramifications, shuttle-cocking of papers and persons all at which take months or a year to get completed by which time the candidate either has given up or has taken up a paid job in preference to the charms of self employment entrepreneurship.

TABLE 13

GROWTH OF SMALL INDUSTRIES IN TAMIL NADU
1966 to 1973

The table below presents the growth of registered village and small industries units in Tamil Nadu during the period 1966 to 1973 :

Year	Number of units	Increase	Remarks
1966	10,784	-	The small enterprises sector accounted for 6.2 per cent of the State income in 1960-61. It increased its share to 8.9 percent in 1970-71 (at 1960-61 prices). During the decade 1960-70 the small enterprises sector registered an average annual growth rate of 6.4% as against the 3.5% growth rate for the economy as a whole.
1967	11,813	1,029	
1968	14,125	2,312	
1969	19,748	5,623	
1970	22,231	2,483	
1971	25,486	3,255	
1972	21,874	3,612	
1973	40,218	18,344	

Source : The Perspective Plan for Tamil Nadu 1974-84, Volume III, State Planning Commission, 1974.

PART VIII

Tamil Nadu—An Economic Appraisal, 1975, in its Review of the performance of the State's economy in the year 1975, purports to provide an overall view of the progress and problems in the various sectors of development in the State. But it does not provide a sufficiently comprehensive report, either verbal or statistical, of the role of small industry in the economic growth and development of the State, inspite of the fact that its contribution to the same is almost as great as that of the large manufacturing industry sector. It is reported (p. 46 of Part I—Review) that the year 1973-74, witnessed significant expansion in the small industries sector. This is supported by the statistical figure of the increase of the number of small industries registered in the State from 31,350 in 1973 to 42,616 in 1974. Their growth trends, as contained in the report gives the categories of small industry as percentages of the total units. This information can be tabulated as follows:

TABLE 14

SMALL INDUSTRY UNITS IN TAMIL NADU (1973-74)

Industry Category	Percent of the Total
Chemical Products	15.5
Metal based Industries	15.3
Machine Manufacturing	9.2
Food processing units	7.0

[2]Commercial Banks' Advances to SSIs

According to Table No. 8.5 of the Appraisal document (Part II—Tables), the number of small scale industries units in Tamil Nadu in 1972 (June) which availed of advances by scheduled commercial banks is 15,130 with limits granted and in force being Rs. 110.04 crores and the balance outstanding being Rs. 71.48 crores. The figures for All India were 1,25,069 units, Rs. 959.16 crores and Rs. 598.36 crores. In June 1973 the Tamil Nadu figures were 18,441 units, Rs. 127.53 crores and Rs. 86.21 crores. This reflects a 21.9 per cent growth in the number of units which availed of commercial banks advances in the course of one year. Also the growth in advances has shown an increase of 15.9 per cent. For the whole country the figures for 1973 were 1,68,061 units, Rs. 1,170.33 crores of limit inforce and Rs. 723.36 crores of balance outstanding. The growth rate in the small-scale units availing bank advances for the country a whole was, therefore, 34.4 per cent which is 12.5 per cent more than the rate for Tamil Nadu mentioned earlier. Similarly with regard to bank advances availed, the growth rate for All India was 22 per cent during 1972-73 which is 6.1 per cent higher than the

[2]Tamil Nadu—An Economic Appraisal—1975

growth rate in advance for units in Tamil Nadu during the same year.

See Annexure I and II of this paper for small industry financing by the Tamil Nadu industrial investment corporation.

PART IX

RECOMMENDATIONS

The following recommendations seem pertinent and feasible of incorporation in any policy formulations with regard to the future development of small scale industries.

Promotion of New Enterprises :

1. To attract and assist new entrepreneurs to take to self-employment through starting small industries, a consortium of promotional institutions in the State should organise a sandwich type of training for the candidates by deputing them to a model/successful small scale enterprise for inplant training for atleast 3 months in the relevant aspects of production, marketing and accounting operations so that the individual develops confidence in later on running his own enterprise. This may be in addition to the class room training imparted by SISI at present. This is likely to bolster up the number of unemployed graduates/technocrats to come forward in increasing numbers to become entrepreneurs than at present.

2. Promotional organisations like the SIDCO should themselves keep ready at hand the current quotations of prices of machinery from reputable manufacturers and suppliers from month to month, as well as the production capacities, cost figures, and input-output details for such machines which will be relevant to the industries which new entrepreneurs will be assisted to set up.

This will eliminate the frustrating experiences and avoidable delays met with by the new entrepreneurs in obtaining quotations from time to time and getting to know other details regarding the production function of the industry.

3. The project profiles and feasibility studies which are offered by the promotional institutions to intending new entrepreneurs are said to be mostly outdated when the stage for implementation arrives by which time a number of the original parameters would have changed much. These institutions should consider obtaining the services of operating entrepreneurs in the field and competent team of consultants consisting of technicians, economists and marketing experts to help prepare really comprehensive and feasible project reports.

4. There is also need for a team of trouble shooters to be organised by these institutions with men of practical knowledge and experience in tackling the problems of small industries.

Ancillaries :

5. The large scale industries already in existence should be advised to shed some of their present activities in the production shops to small scale industries to be started by new entrepreneurs. This will be especially feasible in cases where the large industry suffers from problems of lack of capital to modernize the shops, lack of working capital, managerial problems or other kind of sickness.

6. In the case of new medium or large industries to be licensed the DGTD should exercise a comprehensive technical scrutiny to see what components or sub assemblies included in the project could be desirably shed out to the small enterprises which can operate as ancillaries.

7. The large industries which take ancillaries to assist them with production of components etc should be required to contribute atleast 25% towards the working capital needs of the ancillaries to be utilised in the production of the components to be supplied to them. This will considerably help the small units from turning sick due to non-availability of sufficient working capital to execute orders. The present availability of credit from bankers is not that easy as is supposed to be or claimed. This will also help sustain the units during the period of waiting for payment by the buyers which is normally more than ninety days, too much for the tender child-small industry.

Information cell :

8. There should be set up a monitoring cell in the promotional institutions/ Directorate of Industries which will continuously supply information on the already available capacities for various products, the market potential for the products, the availability and prices of indigenous and imported raw materials etc so that the intending entrepreneurs are sufficiently warned of the circumstances prevalent from time to time regarding these factors and they are enabled to make sound decisions.

Marketing :

9. A marketing organisation with branches in all important centres of the State and the marketing regions should be set up, to which the promotional agencies and the small entrepreneurs can be made to contribute funds for its operation. It should be manned by marketing executives to be drawn from well known marketing agencies/houses, who should adopt all modern and sophisticated methods of marketing like organising exhibitions, sales campaigns, etc.

Policy formulation :

10. The present policies with regard to the direction and development of small industries both at the Centre and States seem to suffer from a certain adhocism as there are no basic directions or basic policy decisions in the matter. Apart from the platitudinal statements of intentions in the five year plans, there are no annual or longer term budgetting policies and developmental programmes firmly laid down to fix the lines of development, the types of assistance including reservation of lines of production. More emphasis on the co-ordination of personnel, promotional, financial and technical aspects of their development is badly needed.

PART VIII

ANNEXURE—I

SMALL SCALE INDUSTRIES : CONSTITUTION-WISE CLASSIFICATION OF LOANS ADVANCES AND OUTSTANDING AS ON 31—3—1973

(Rs. in lakhs)

CONSTITUTION ON INDUSTRIAL CONCERNS	EFFECTIVE SANCTIONS		AMOUNT DISBURSED		AMOUNT OUTSTANDING		Percentage of the sanctions
	Small Scale		Small Scale		Small Scale		
	No.	Amount	No.	Amount	No.	Amount	
Public limited companies	7	11.65	6	9.11	2	3.51	
Private limited companies	34	151.59	31	98.20	24	80.53	88
Co-operative societies	...	...	...	...	...	...	
Partnership concerns	134	283.41	105	187.77	100	177.36	95
Joint-Hindu Families	1	0.86	1	0.86	1	0.93	
Proprietary concerns	111	112.86	66	66.28	60	58.85	90

Constitution-wise the maximum percentage of outstandings are noticed in respect of partnership concerns. Proprietary concerns occupies the second rank while private limited companies come third.

ANNEXURE—II

TICC's FINANCIAL ASSISTANCE TO SSI SECTOR

CLASSIFICATION OF LOANS AND ADVANCES INDUSTRY-WISE (SMALL SCALE) AS ON 31-3-1973 & 31-3-1975 (Rs. in lakhs)

TYPE OF INDUSTRY	EFFECTIVE SANCTIONS Small scale		AMOUNT DISBURSED Small scale		AMOUNT OUTSTANDING Small scale	
	No.	Amount	No.	Amount	No.	Amount
1. Stone quarrying, clay and pits	2	2.28	2	2.05	2	2.07
2. Food manufacturing industries except beverage industries	60 (141)	94.83 (204.10)	49	70.52	46	62.89
3. Beverage industries	3	7.18	3	5.82	3	6.08
4. Tobacco manufacturing	-	-	-	-	-	-
5. Manufacture of textiles	17 (61)	31.73 (80.58)	13	26.01	13	23.03
6. Manufacture of foot-wear, other wearing apparels and made-up textile goods	1	4.50	1	4.29	1	4.88
7. Manufacture of furniture and fixtures	4	3.58	2	1.81	2	1.87
8. Manufacture of paper and paper products	5 (57)	19.50 (92.15)	5	15.22	4	13.45
9. Printing, publishing and allied industries	12 (57)	24.24	12	24.15	10	21.67
10. Manufacture of leather and fur products except footwear and other wearing apparels	3	3.34	-	-	-	-

	TYPE OF INDUSTRY	EFFECTIVE SANCTIONS Small Scale		AMOUNT DISBURSED Small Scale		AMOUNT OUTSTANDING Small Scale	
		No.	Amount	No.	Amount	No.	Amount (Rs. in lakhs)
11.	Manufacture of rubber and rubber products	5	9.84	4	8.97	4	7.98
12.	Manufacture of chemical and chemical products	26 (44)	49.98 (102.17)	19	29.13	13	28.57
13.	Manufacture of products of petroleum and coal	-	-	-	-	-	
14.	Manufacture of non-metallic mineral products except products of petroleum and coal	7 (27)	23.01 75.77)	6	14.73	5	14.03
15.	Basic metal industries	18 (27)	47.63 (91.53)	14	28.57	11	23.40
16.	Manufacture of metal products except machinery and transport equipment	14 (77)	11.32 (90.22)	8	6.13	7	4.75
17.	Manufacture of machinery except electrical machinery	29 (43)	32.43 (50.83)	18	22.34	15	14.86
18.	Manufacture of electrical machinery, Apparatus appliances and supplies	8 (35)	18.65 (62.96)	7	13.91	6	11.60
19.	Manufacturing of transport equipments	30 (66)	72.42 (121.17)	26	38.96	26	38.66
20.	Electricity, gas and steam	-	-		-	-	-

TYPE OF INDUSTRY	EFFECTIVE SANCTIONS Small scale		AMOUNT DISBURSED Small scale		AMOUNT OUTSTANDING Small scale	
	No.	Amount	No.	Amount	No.	Amount
						((Rs. in lakhs)
21. Motion picture production, distribution and projection						
22. Hotel Industries	3 (11)	39.50 (109.20)	2	6.50	2	6.50
23. Transport (Road Transport operators, etc.,)	16	8.54	4	2.05	4	1.99
24. Miscellaneous manufacturing industries	12 (120)	46.64 (222.71)	10	39.87	9	31.71
25. Rural Medical Practitioners	12	9.23	4	1.19	4	1.19

Reasons for heavy outstandings in 1973 : 1. Lack of raw materials
2. Lack of demand for products of S.S.I.'s
3. Long gestation period for many of the units
4. Lack of good financial management.

Summary of Discussion

In the discussion of the paper at the Seminar held in the Seminar Room of the Institute on Thursday, 30th September, 1976, under the chairmanship of Mrs. Sarasvati Nityananda, Madras Institute of Development Studies, the chairman observed that while the development of village and small industries is an important part of India's post-independence economic programmes, it must be recalled that the economic policies of a colonial regime had left no base for the development of this sector in terms of infrastructure, skills or organisational experience. The uneven growth of small industries has to be viewed against this handicap. Two useful studies on the growth pattern of small scale industries are, first, a survey by the Indian Institute of Public Opinion (Quarterly Economic Report No. 82) which gives an all India picture and second, an analysis of the structure of this sector in Tamil Nadu which forms part of a research study by Dr. C. T. Kurien and Prof. Joseph James "Economic Change in Tamil Nadu". Guidelines for future development have been laid down in the Tamil Nadu State Planning Commission Report on small industries. The paper presents a clear picture of the current status of small scale industries in Tamil Nadu, although not strictly a mid-plan appraisal.

The author introducing the paper stated that small industries were not accorded priority in economic planning till the framing of the Second Five Year Plan when Prof. Mahalanobis allocated the production of consumer goods to this sector and basic goods to the large industries. A study of the small industries reveals certain desirable advantages in comparison with the large scale sector. Small industries provide higher employment per rupee invested; ensures a greater possibility of equitable distribution of national income if capital and skill are efficiently organised; are able to overcome imbalances in regional dispersal of industries and expedite development of backward areas. However, statistical data available is deficient. The A. S. I. figures cover only small industries which employ 20 workers if non-power using and a minimum of 10 workers if power using. This coverage, therefore, leaves out a substantial number of units. The Quarterly Economic Report No. 82 of the I. I. P. O. gives the Statewise picture during 1960-70. The SIDO survey contains statistics as in 1974, according to which there were 28,910 units in Tamil Nadu. The districtwise figures as on 31/7/76 are reported by the Director of Industries and Commerce which classified the units as permanent and temporary and the total number is 38,683. Unregistered units may possibly comprise another 1/3. 50 per cent of the registered units are concentrated in Madras, Chingleput and Coimbatore. The backward areas are not favoured for the location of industries in this sector. It is also seen that the small scale sector has been growing at a faster rate than large scale sector during 1972-75. The output has risen from Rs. 2,900 crores in 1972 to Rs. 5,700 crores in 1975. The output is highest in metal products, chemicals and basic metal industries which total about 50 per cent of the total output. The exports of small industries are valued at Rs. 400 crores which is 12 per cent of the total exports, although production is over 33 per cent of the industrial output. The inhibiting factors

in small industries exports seem to be poor R and D, underfunding, lack of quality consciousness, cumbersome and complex system of export, lack of market information, etc. An analysis of the output employment co-efficiency in small industries in various States shows that as in 1960-61 Tamil Nadu was well below other industrialised States. Similarly in estimates of employment and net output, the situation in Tamil Nadu was not satisfactory. Another crucial factor is capacity utilisation in which it is noted from empirical data that 50 per cent of units are using only 50 per cent capacity. This under utilisation is pricipally due to shortages of indigenous and imported raw materials, inadequate finance and lack of demand. Among the organisations formed at the State and Central level to assist the development of Small Industries, the Small Industries Development Corporation Ltd., (SIDCO) has established some useful infrastructure and consultancy programmes, of which the principal ones are distribution of raw materials, supply of machinery on hire purchase, construction of worksheds, marketing assistance, consultancy and consolidation of import licenses for bulk import. In practice, the services offered by SIDCO, however, have not met expectations. The high rents of worksheds provided, increases overheads uneconomically and the consultancy services provided consist mainly of project profiles which are often out of date. The major problems besetting small industries include financial stringency owing to credit squeeze and acute shortage of working capital as public financial institutions do not make loans for this purpose. The author made several recommendations for the development and improvement of small industries. The reservation of 200 lines of production for small industries needed to be increased considerably. Financing of small industries by commercial banks has to be intensified. The systematic devolution of the production of ancillary items to small industries would expand this sector, particularly if a proportion of working capital needs of these units were met by the large scale industry concerned. Another measure would be to assist 20 per cent of the technical graduates to venture into small industries.

During the discussion it was pointed out that the data available on small industries particularly those on output-employment coefficients were out-dated and could not indicate present trends. However more recent statistics on this aspect were not readily available. Similarly there were no direct figures available for ancillaries. A query was raised whether there was any definite information available on the impact of the Emergency on the growth of small industries. In this connection, reference was made to the TIIC-SIDCO consortium for quicker processing of applications and other formalities to overcome the avoidable delays. Incentives for establishment of small industries in backward areas in the shape of a subsidy of 15 per cent is now part of the current policy. The banks are now required to submit a fortnightly report on financing of small industries and differential interest rates are an added encouragement for the rural small entreprenuers. An undesirable feature appears to have arisen in the growth of bogus companies and other malpractices and some penal action is necessary to root this out. The Maharashtra survey of small industries had identified a number of spurious units. Concerning the efficiency of small industries, it was thought that price of products was an accurate indicator. A feature of

the small industries production pattern was that the cost per unit was lower than that of large units. But products of small industries do not always maintain standards. Employment orientation in small industries, therefore, should go hand in hand with quality control. A view was expressed that the current capital limit of Rs. 15 lakhs led to the purchase of substandard machinery and equipment and consequent indifferent quality in production. It was suggested that the approach could be flexible and the capital limit set at Rs. 20 or 25 lakhs. Official assistance should not ignore even enterprises carried on in domestic locations. For instance in Haryana and Punjab such units were able to produce cheap bicycle parts. Another aspect of small industries structure pointed was that there is overall deficiency of managerial capacity. In small industries while the percentage of profit was as high as 32 per cent, the total profit is small and cannot be ploughed back into the industry or used to create reserve funds.

The recommendations developed in the paper and the discussion that ensued identified some areas of concern. Of these the most urgent need is for reliable information and up-to-date on structure of the sector. Further, there should be closer linkage between small industries and large industrial units to encourage production of ancillary parts by the former. While linkage with large industries and export orientation are necessary, directions of future development in this sector must recognise the pivotal role it has to play in integrating the rural areas into a local, regional and national system of productivity services.

SOCIO ECONOMIC PROBLEMS OF DEVELOPING COUNTRIES*

Poverty :

The major socio-economic problem of the developing countries is poverty. This poverty phenomenon has three aspects. First it is massive in the sense that the majority of the people 50-80 per cent on the basis of a minimum nutritional norm, 60-70 per cent in terms of what the United Nations calls minimum levels of living or what our Draft Fifth Plan calls the minimum needs programme live under the poverty line so defined. In absolute terms, over one billion people are living in conditions of mass poverty.[1] Second poverty is unequally distributed. There is a growing and wide gap between the poor majority and the rich minority both internationally and intranationally. Internationally the GNP per capita of 17 industrialised countries ranged between $6,595 for the United States and $2,702 for Italy in 1974 (up from $4,848 for the United States and $1,884 for Italy in 1970) compared to that of 46 non oil producing developing countries whose per capita income ranges from $70 for Burundi, Mali, Ruanda, Uppervolta, Bangladesh and Laos to $250 for Egypt, Philippines and Thailand in 1973 (up from $60 for Burundi, $210 for Thailand and $240 for Philippines and stagnant at $70 for Mali and Uppervolta in 1970).[2] Internationally the evidence from the developing countries income distribution is an increase in the numbers of those living in poverty between 1960 and 1970, a stagnation or decline in their per capite incomes in that period and an increase in the per capita income of the top 20 per cent of the society[3]. Third, poverty is basically a rural phenomenon. On the average, urban wages in developing countries are 2 to 3 times higher than rural wages, and the benefits of the new technology in agriculture—the benefits of the so-called green revolution—have

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[1] R. S. McNanara: One Hundred Countries. Two Billion People—Proeger Publishers, New York 1973

The 27th Round of NSS (1972-73) reports that 43-5 per cent of rural households had a monthly per capita income of less than Rs. 34/-

[2] World Bank Atlas 1973 and 1975

[3] Report of the President—Annual Meeting of the Board of Governors of the World Bank, Washington D.C.—1971

Poverty in India—Dandekar and Rath, Economic and Political Weekly—Bombay—India 1971

*Extracts from a paper presented by Dr. Malcolm Adiseshiah, to the Seminar, on Science in the Service of Basic Human Needs, Committee on Science and Technology in Developing Countries, I. C. S. U., India, held in Hyderabad on August 10, 1976.

accrued to the 20 per cent large and medium sized landholdings, leaving the small, dry and marginal farmer outside of the science and technology rural delivery system. Here is one point where the science and technology system in each of the developing countries can make a start. The slow and somewhat neutral start made in this country by CSIR in its Karimnagar experiment (slow because the survey stage itself has taken over 2 years to take off, and neutral because it is equally addressed to the rich farmer and the poor landless labourer instead of being loaded in the favour of the latter) is now being expanded into the Integral Rural Development Programme set forth in the Union Budget for this year.

Stagnant Agriculture :

Food production in developing countries has been stagnant in absolute terms and declining in per capita terms. Using 1961-65 as the base of 100, total food production increased from 123 in 1970 to 131 in 1974 (in Asia from 124 to 129), while per capita food production declined from 104 in 1970 to 102 in 1974 (in Asia the decline was steeper from 104 to 98). In industrialised countries, on the other hand, food production increased by 20 percent.[4] From being food exporting countries in the pre-war period, the developing countries have had to import an annual average of 30 million tonnes between 1969 and 72, raising to 52 million tonnes in 1974. This was also the time of a sharp rise in world food grain prices by 250 per cent in the case of wheat, and 300 per cent in the case of rice between 1972 and 1974, sending up the food import bill from $8 billion to $9 billion. The future of the food situation for the developing countries is even more sombre. FAO estimates a cereal shortage for the developing countries of 85 million tonnes in 1985, which at current prices would cost $17 billion. The Club of Rome forecasts cereal imports for India and other South Asian countries of 500 million tonnes in the year 2025.[5] Apart from these somewhat frightening futurological forecasts, the stagnation of the agricultural sector in the developing countries which employs 60 to 80 of the labour force, contributes around 40 to 50 per cent of the GNP and shares to the extent of 70 to 90 in the total volume of exports from these countries[6] is due to many reasons.

The comparatively low level of science and technology application to this sector and the uneven delivery system of such applications as exists have been referred to earlier. The demographic factor in the developing countries who have to feed 60 million additional persons annually and whose rate of population increase between 1961 and 1973 has been from 2 to 2.5 per cent (compared to the decline during that period from 1.3 to 0.9 per cent in the industrialised countries) is a further element in the failing per capita agricultural product. A major operating factor in the stagnant and declining nature of the agricultural sector is the rural social structure in the developing countries. If it is true that the modern agricultural technology is scale neutral, then the land ownership concentrations in these countries must be seen as a negative factor. In Brazil less than 10 per cent of the rural families control 75 per cent of the culti-

[4] The World Food Situation—February 1975 U. N. World Food Council WFC/11

[5] Strategy for Tomorrow—Club of Rome 1975

[6] UNCTAD New York—TD/B/496/Sept. 1 and Annexes 1975

vated land, in India, Pakistan and Thailand around 12 per cent of the rural families own more than 50 per cent of the cultivated land.[7] It is in this context that a programme of land ceiling, security of tenancies, rights to the tiller, control of rents and rural indebtedness, timely supply of inputs to the small and marginal farmer together with adequate marketing arrangements, and assurance of fair wages to landless labourers is an even more decisive factor for a break-through in the stagnant agricultural sector than the intensification in the application of science and technology to it.

Unemployment :

The developing countries have 76 million unemployed workers and have to find employment for some 226 million during the seventies.[8] In its report to the World Employment Conference currently underway (June in Geneva, the International Labour Organisation computes that between now and the year 2001, employment will have to be created for one billion workers in the developing countries. Within these aggregates, the unemployment of the educated labour in the developing countries which was around 9 million in 1970 is now around 15 million. India also registering a total of 5 million job seekers registered in her Employment Exchanges as at December 1975. These figures relate to overt employment. There is in addition the more serious problem of underemployment which is estimated to cover 30 per cent of the working population in these countries.[9] In the absence of a system of social security, really no one in a developing country can afford to be completely unemployed—unless he is living off a relative as a member for example of a joint family. Every one has to work at something, even if it be at literally scratching at a dry barren ground for a living. There are conceptual problems in defining unemployment and underemployment which are the subject of perennial debate among economists, the broad meaning of underemployment being that a person is working far less than the time period that he can. There is also the problem of disguised unemployment wherein a proportion (varying from 10-20) of those working on agriculture and doing so to fill in time and can be removed from that sector without any decline in agricultural output. Another feature of the employment situation in the developing countries is their very high dependency ratio which is 80.8 (for Asia 85.9 and Africa 87.3) compared to 57. 5 of the industrialised countries.[10]

In this somewhat daunting employment profile, four lines of action are suggested for the developing countries. First, their development strategy which in the sixties and even to-day are aimed at GNP growth with corollary employment consequence, has to be restructured in the direction of a mix of employment generation and growth. Its aim should be the increased production of goods of mass consumption. This is more easily stated as a general principle but involves a quite complex input output matrix, a different balance of small, medium and large industrial mix, a closer correlation between the capital intensive core sector and the manpower

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[7] Agrarian Reform : Food and Agricultural Organisation. Rome 1970

[8] World Employment Programme—ILO Geneva 1969

[9] Report : World Employment Conference—ILO—Geneva 1976

[10] Trends in Developing Countries—World Bank—Washington 1973.

demanding non-core sector and a new agri and agro industrial set of priorities for investment than what is traditional in their development plans.

Second there is a special task for science and technology in these countries which has hitherto concentrated its resources and research on the capital intensive sector and in the profit producing luxury goods and consumer durables, which are in demand by the market—that is the upper and middle classes who have the purchasing power that compose the market. And as the science and technology that are needed to produce these goods are the same as those used in the industrialised countries such science and technology are imported by the developing countries through various systems of transfer or purchased by collaboration agreements. This makes for the marginalisation of science in the developing countries, that is their science and technological institutions are alienated from their agricultural and manufacturing industries, because what they are working can be bought by their governments and agricultural and industrial leaders from abroad with more certainty and speed, certainty because they will surely work and speed because there are no endless procedural bottlenecks. Their Science and Technology have thus become consumption items instead of production inputs and investment items. In this context, what is needed is for the Science and Technology of the developing countries to develop the technologies needed by them for meeting, on the one hand, their special and large manpower resources and, on the other hand, and in the process, became the infrastructure for the full and improved production of goods and services needed by the poor masses in agriculture, animal husbandry, fisheries, edible oils, cereals, cloth, education, health and nutrition, water supply, housing and small and cottage industries which today have little Science and Technology back-up.

A third issue on the employment problem raised is the proposal by the ILO report referred to earlier for a more rational International Division of Labour under which the industrialised countries will move out of less capital intensive and skill demanding industries into those which are more sophisticated in terms of labour skills and capital intensity, allowing the developing countries to specialise in the former group which include textiles, leather goods, rubber products, jute manufactures, sugar, coffee and tea processing and a wide host of agri-agro industrial sectors. It has been estimated that such an International Division of Labour will benefit both groups of countries—by enabling labour in the industrialised countries to move into industries which are more skilled and higher wage earning occupations, thus increasing their total welfare: and by increasing the number of jobs in the developing countries, for every one job released in the industrialised countries, three to four jobs can be created in the corresponding activity established in the developing countries. This, by itself, if it were accompanied by some kind of intergovernmental agreement, would be unexceptionable. But the ILO report to the conference refers to the fact that multinational corporations, who to-day employ 2 million workers in their subsidiaries or agents in the developing countries, could further expand their activities to meet the massive labour force increase in these countries. But this kind of International Division of Labour has a price. The multinational corporations are moving out their

assembly work to Brazil, Mexico, South Korea, Singapore, Pakistan, Kenya, Senegal and the developing countries, because labour productivity in these countries in assembling automobiles, transistors, television sets, air conditioners and other durables is on all fours with that in their own (industrialised countries), while wages are one fourth to one tenth of the levels in their countries. Hence the declining rate of return on capital invested in these industries in their home market is leading to an outflow of capital and accompanying technology to the developing countries, who in return are paying something like 5 percent of their GNP as repatriated profits to these countries.[11] Under this form of international Division of Labour, there is thus not only the question of the nature of production structure developing in the developing countries but even the question of their balanced and autonomous development.

International Trade:

Of the total world exports of $278 billion in 1970, the developing countries share was 17 per cent and that of the industrialised countries 83 per cent. Of these relative shares, the percentage of primary commodities exports of the developing countries was 75.9 per cent and manufactures 23.4 per cent which was about the reverse of the industrialised countries exports percentage of 22.9 and 75.4. The traditional pattern of developing countries being exporters of primary products and importers of manufactures and machinery still holds, in spite of the view that the industrialised countries have become themselves primary product producers. They have done this under the shelter of high tariff and non-tariff barriers—as in the case of sugar, cereals and edible oils and in the case of food exports four countries—U.S., Canada, Australia and Argentina—have become major exporters. There has also been an increase in the percentage share of the developing countries manufacturing exports which have increased from 14.6 in 1960 to 23.4 in 1970. This is to an extent due to the location of assembling units in developing countries by multinational corporations as noted earlier. Consequent to the developing countries being exporters of primary products and importers of manufactures and food grains, and the declining and fluctuating trend of primary product prices in world markets and the rising price trend of manufacture, the terms of trade with 100 for the base year 1950 has been unfavourable and worsening for developing countries declining to 90 between 1968 and 1971, while that of the industrialised countries has risen favourably to 110/111 during that period.[12] Since 1973, the developing countries terms of trade—particularly that of the 33 non oil producing developing countries called the Most Seriously Affected Countries (MSA)—have sharply deteriorated due to the increased prices of oil, food grains, fertilisers, non-ferrous metals and capital machinery, under which their current account deficit for 1975 is estimated at $45 billion.

It is against this backdrop that the Fourth United Nations Conference on Trade and Development (UNCTAD-IV) met in Nairobi to face the following four major problems faced by the (MSA) developing countries: (a) their mounting trade deficit amounting to $45 billion per year for the next three years, doubling

[11]Amin, Samin Accumulation on a World Scale, New York 1974
[12]Statistical Year Book—1974, United Nations, New York.

their debt servicing of $ 120 billion from 11 per cent of their export earnings in 1974 to 20 per cent in 1977: (b) Some regulation of commodity prices which have further fallen in relation to the prices of manufactures which they import, worsening their terms of trade by a further 10 per cent between 1972-73 and 1975-76 calling for a programme of 10 commodity buffer stocks—backed by a $3 billion fund as a start: (c) the problem of their small share (7 per cent) of world industry and high cost of over $ one billion per annum that they pay for the transfer of technology: and (d) the problem of world monetary chaos calling for a new international monetary system universal in membership, serving their need for reserve creation, adjustment mechanisms, balance of payments support and participation in decision making.[13]

These represent the heart of the new International Economic Order whose principles have been established by the United Nations but whose execution is still a long way off. UNCTAD-IV has taken a first step in establishing machinery and procedures to discuss and negotiate these basic issues. There are two areas in which the developing countries can make progress in this somewhat dismal international trade situation. One is to expand substantially the trade between themselves. With 1950 as the base, in 1971 the trade among industrialised countries stands at 774.6, from industrialised to developing countries at 418.8, from developing to industrialised countries at 334.2, but among the developing countries is only 270.7. It is to be hoped that the decision of the Non-aligned summit at Colombo will be translated into increased trade flows between and among the developing countries. The second problem is for the developing countries to restructure their export-import trade in line with the major development objective set forth earlier to concentrate on the production of essential goods and services needed by their poor majority. This in turn depends on the nature of the centres of power within each country and is a basic issue.

Ownership and Power:

It is at this point that the socio-political issue of the ownership of production factors and resources and the decision making powers and net works that determine so much of what has been discussed earlier, namely, poverty, agricultural stagnation, unemployment and trade flows call for some discussion. Nationally the concentration on economic growth (with some lip service to social justice) in development plans, the advice that the central problem of growth for the developing countries is to transform them from being 5 per cent savers to 10 per cent savers, that export oriented growth is the way to break out of the economist's invention of the low level equilibrium trap of which the examples of South Korea, Taiwan, Hongkong. Singapore are put forward, and the central problem of the developing countries being their population explosion,—all these have their counterpart in the international models popularised in the Club of Rome—publications—Limits to Growth and Strategy for tomorrow. These warn us that the exponential growth of our population will use up all available arable land between 2,100 and 2,500 acres, that the current rate of use of minerals—oil, chromium, aluminium, copper, iron ores etc.,—will involve their exhaustion within a varying period, 21 years for copper and 420 years

[13]UNCTAD IV—Report of the Secretary-General 1976.

for chromium. The Neo-Malthusian model—which has been slightly attenuated in Strategy for Tomorrow—is that our future is that either our population will outrun our food supplies, or if technology is used to increase food supplies, it will be at the cost of unbearable levels of pollution which will make life nasty, poor and brutish. It must be admitted that there is truth in both the national and international portrayals of the existing social order. In the developing countries, Economic growth is needed, more national savings are needed for such growth, exports must expand to pay for needed machinery and technology, population growth must be restrained, just as much as the rate of consumption of our natural and mineral resources needs to be slowed and levels of pollution controlled internationally. But this national and international analysis and portrayal of the development problem sidesteps, and in fact hides the central issue of the ownership of resources and the decision making net works which determine what shall be produced, namely the non-essential consumer durables, where investments shall be made, namely in profit producing sectors which in the developing countries are those producing for upper and middle classes, the areas where science and technology will be applied and not applied, and the kind of export industries which are quick returns producing sectors set up by the Governments and the industrialists of the developing countries—as subordinate to the multi-national corporations of the developed countries. So too in regard to the alarming rate of consumption of the world's minerals leading to their exhaustion the question is who owns them and consumes them. It is not the poor developing countries who use less than 5 per cent of these resources, but the industrial countries and particularly the United States whose Senate Report[14] States that the American people consumed during the 10 years 1959-68 more of world resources than all people in all countries in all their history ever consumed. And so there is need for as much attention to be paid to the decisive question of how the ownership of production factors, the narrow knowledge base, and the political decision making powers within each developing country can be removed from their upper and middle class concentration and be spread more evenly. Only then can science and technology serve the needs of the poor majority of the country. Similarly internationally, the ownership and use of the world's common resources need to be spread evenly, and in particular the rate of their consumption by the rich countries restrained by inter-governmental agreements and sanctions.

[14] U. S. Congress—Report on consumption of Minerals by U. S., Washington—1972.

BOOK REVIEW

'RURAL EMPLOYMENT IN TAMIL NADU'

By

J. VISWANATHA MURTHI and C. L. NARASIMHAN

This book contains the findings of a joint study undertaken by two Research Officers of the Madras Institute of Development Studies. As the Director of the Institute, Dr. Malcolm S. Adiseshiah, observes in the foreword to the book, 'the study is the first one that attempts to portray the profile of rural employment in the State and forecasts its contours for the Fifth and Sixth Plans, along with means of meeting the problems that might arise.'

The book is divided into six chapters. In Chapter 1, the authors explain the scope and nature of the study and define important terms like employment, labour force, underemployment, disguised employment, crude workers' rate and labour participation rate. Chapter 2 contains a detailed comparative study of the unemployment situation at the national and the State level. While overt unemployment is a striking feature of the urban sector, underemployment and disguised employment (which means disguised unemployment) are pervasive in the rural sector both in Tamil Nadu and in India as a whole. In 1961, only 0.29 per cent of the male and 0.03 per cent of the female rural population in India were overtly unemployed, while the corresponding figures for Tamil Nadu were 0.32 per cent and 0.02 per cent. The prevalence of large scale poverty among the rural population can be explained only in terms of large scale underemployment and disguised unemployment. The proportion of illiterates among Tamil Nadu's rural unemployed is strikingly low (only 9.98 per cent) as compared to the national level (40.28 per cent), but the proportion of the educated among Tamil Nadu's rural unemployed is considerably higher than at the national level.

In Chapter 3, the authors have compared the rural labour force of the 12 districts of Tamil Nadu in regard to its growth from 1951 to 1971, the crude workers' rate in 1961 and 1971, distribution of the rural labour force among the primary, secondary and tertiary sectors in the economy, the level of unemployment, etc. In Chapter 4, there is a study of agricultural labour, or the labour force engaged in the primary sector, which includes cultivation, forestry, fishing, hunting, etc. The term labour force includes owners, tenants and workers. The comparison of the level of the unemployment in the 12 districts reveals many interesting facts: e.g. Kanyakumari district has the lowest proportion of illiterates and the highest proportion of the educated among the unemployed in the rural sector. Chapter 5 is a critical assessment of the impact of the

various programmes introduced in recent years to increase employment in the State. These programmes include the Community Development Programme, Khadi and Village Industries Programme, Rural Man-Power Programme, Crash Schemes for Rural Employment, Intensive Rural Employment Pilot Project, etc. According to the authors, although employment creation effected by these programmes is substantial, they have suffered from inadequate attention to co-ordination and implementation. Chapter 6 contains certain forecasts and policy recommendations.

The Census of India 1971 has not yet provided the final estimates for unemployment. The National Sample Survey, 1969-70, has estimated the level of unemployment in Tamil Nadu as 1.3 per cent of the rural population. The authors of the present study have estimated Tamil Nadu's rural unemployment as 2.48 per cent. The authors had to work under the handicap of inadequate statistical data and depend heavily on the official Census data. The Census of India has defined the worker differently in 1951, 1961 and 1971. All this has made comparison of unemployment at different times difficult and misleading. In spite of such constraints, the authors have attempted certain projections for 1974 and 1981 the full validity of which can be tested only by further studies. It is not clear how the authors have arrived at the high level of overt unemployment of 6.8 per cent for males and 36.5 per cent for females forecast for 1981 for the rural sector in Tamil Nadu.

The authors have done a great service to the State by highlighting the diverse dimensions of the problem of unemployment at the national, State and district levels. They have rightly urged the need for a re-definition of employment in terms of productivity, output and income. Although this would swell the ranks of the overtly unemployed, it would give a more realistic picture of the problem of unemployment and a basis for policy formulations. The programmes for action recommended by the authors both for the State as a whole and for separate districts are no doubt important and practical, but the gravity of the problem of unutilised and under-utilised man-power and the chronic poverty in the rural sector calls for more radical and comprehensive solutions.

(Sd.) A. DEVASIA, S. J.

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