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Strategies For Sustainable Agriculture and Irrigation in Tamil Nadu

Challenges Facing Industry

578.

CONTENTS

EDITORIAL - SOME HIGHLIGHTS

I. General Economic Scene

State

Plan

Tamil Nadu's VIII Plan, which was proposed at Rs. 9500 crores, has, because of the state's improved Balance from Current Revenue (BCR), increase in union support for externally aided projects, better mobilisation of small savings and higher level of negotiated loans, been raised to 10,200 crores. The improvement in BCR is expected at Rs. 2400 crores : the union support for externally aided projects has increased from Rs. 2500 crores to Rs. 3000 crores : small savings collections and negotiated loans will bring in an additional Rs 3700 crores - for the VIII Plan. The Tamil Nadu Economic Appraisal - 1990 reports that the VII Plan totalled Rs. 7200 crores

Credit and foreign assistance

According to this Appraisal, the state has marginally improved its ranking in Union investment, having gone up from the 9th place in 1989-90 at 4.9 per cent of all Union investments to the 8th place in 1989-90 at Rs. 5902 crores or 5.2 per cent. It accounted for an additiona investment of Rs 1004 crores during 1989-90 which constitutes at 6.1 per cent of the Rs. 16,409 crores at the national level. The improvement in 1989-90, reported in the appraisal document shall be set against the 1989-90 budget which states that the state's share of the union investment declined sharply from 10 per cent in 1969 to 5.21 per cent in 1989. From all India financial institutions, Tamil Nadu's share has gone up from Rs 400 crores in 1985 to Rs. 905 crores in 1989-90, which was the terminal year of the VII Plan and which was 9.77 per cent of the total amount disbursed. But in terms of per capita investment, the state at Rs. 187.92 crores in 1989-90 was the smallest of the 4 southern states and cumulatively it ranked fifth at Rs. 1087 crores The government reports that the total value of committed credit by external agencies available to the state government till August 1992 was Rs.2500 crores covering both ongoing projects and those in the pipelines. These projects have been funded by the World Bank, ADB, DANIDA, IFAD, USAID, and EEC. The government also reports that it is gearing to step up the utilisation of the credits. Following the increases in the 1992-93 Annual Plan (see Vol. XXII pp 175-176) and the VIII Plan referred to earlier including increased union support, the state government will be able to allocate the rupee resources for these projects. These externally funded projects which have resulted from the states good performance will also relieve the acute resources crunch faced by the state. The state has also taken the lead in the country in full fledged computerisation of district level annual credit plans from this financial year with the launch of NABARD's Service Area and Monitoring System (SAMIS) this April.

Climate and Prices

The weather in May was hot and dry, the temperature climbing to 40° celsius and above. Towards the end of May, the South West monsoon was expected to break in Kerala and come onto Kanyakumari. There were also the usual summer showers towards the end of the very hot season in Madras. CSO's monthly abstract of statistics for the period after November has not been issued and so the price data reported in the last issue remains unchanged.

Power

Power in the state in May was normal with no power cuts or load shedding. TNEB has approved a plan of action to reduce the very large loss of 18.5 per cent by 1.85 per cent. It involves standardisation of the conductor sizes, upgradation of power distribution by voltage and the calibration of low tension metres. The Board is not able to assess the transmission and distribution losses in the state because of the non provision of meters to agricultural services and huts. This is a case where the initial cost of providing meters estimated at Rs. 45 crores might not be recouped by setting up of meters because the high incidence of losses are being identified as being due to voltage drop. The state government to help the ailing B & C mill has exempted it from any power cut for 3 years. It has had to amend the Tamil Nadu Restriction on Consumption of Electricity Order 1976 for this concession. It is questionable whether sick units should be kept alive at all and whether they should receive electricity subsidy like this. Applications from which farmers are pouring into TNEB (over 2000 in 2 months) for getting priority correction for their pumpsets under the Board's self financing scheme. In view of the collapse of 2000 MW nuclear Koodankulam power project because of the dissolution of the USSR, the state government and TNEB are considering starting Koodankulam with a 200 MW unit, using indigenous techno-logy. It has also under consideration 600 MW gas based plant at Pillayperumalinallur but its gas requirement of 2 million cubic metres a day, is leading to the examining of whether the plant can be run with furnace oil from the country's refineries. The government is opening up the sector to the private agencies. It has invited bids from private parties for both its 500 MW coal based projects at Cuddalore and Tuticorin, two more lignite based plants of 210 MW each near Neyveli on which an NRI and a group of industrialists are each getting involved. For the second project the industrialists are willing to buy the fuel from NLC, the machinery from BHEL,

locating the plant at Srimushnam, near Neyveli. At Basin Bridge, TNEB has proposed a 120 MW thermal plant to be financed by ODA, Japan, on which two bids - one from Mitsubishi and the other from Sumifomo have been received and are being considered. To attract private parties, the state government is adopting a flexible formula on the state's equity participation to be decided on a case by case basis; equ lling the tariff for each privately generated power to be equal to the highest unit cost of production of TNEB and also permitting power generation for captive consumption, with any excess being banked with TNEB. Further, the state which has exhausted most of its viable hydel power and cannot expand its thermal capacity, is now trying to non conventional energy, particularly wind energy. Here the state needs to gird itself to tap the full potential under the VIII Plan period. 22 sites in the 3 southern districts of Chidambaram, Nellai Kattabomban, and Kanyakumari have been identified by IADA as having rich potential for wind energy. Another breakthrough in energy saving tea factories is through their use of integrated solar air heating system which the Erinkadu Tea Estate in Coonoor has demonstrated. The technology has been indigenously developed and gives the tea factories the needed 100-130 celsius temperature for drying the tea leaves.

In May the power situation in the country deteriorated. A number of states-Kerala, Karnataka, AP. UP, WB and Orissa imposed power cuts - some for both AT&LT users. Most of this shortage of power was due to the declining share of hydel generation The government states that hydel power has declined from 45 96 per cent in 1966 to 28 per cent at end of 1992 and is likely to persist through at the VIII Plan. Against this depressing scenario, two positive points should be noted. First, of the vast hydel potential of the country, only 14 per cent has been developed and a further 7 per cent is under development. According to CEA, the economically exploitable hydel potential is 84,340 MW at 60 per cent load factor. During the VIII Plan only 6247.9 MW of hydro capacity has been envisaged. This should be rapidly expanded during the IX Plan and for that steps should be taken in the VII Plan. The second positive point is that the Energy Sector Management Assistance Programme (ESMAP) of the World Bank has identified 51 mini hydel projects in the 4 southern states and Punjab to be funded by the Bank at $70 million. The government reports that industries with captive power plants have been hit by these decision. South Eastern Coal fields are not to allocate under the priority category for these plants. This means that these industries will have to reduce their production drastically because they will have only the amount of coal available to non core sector users. A serious factor is that the economy faces an VIII Plan power deficit of 48,000 MW, but the Planning Commission has only allotted Rs. 78,000 crores which will meet only half the deficit. It is hoped that the balance of 24000 MW will be provided by the private sector. But not only is there this rather vague hope and reliance on the private sector, the possibility of the government being able to raise Rs. 78,000 crores is doubtful, so that the VIII Plan raises a question mark over its power availability which will affect the entire economy.

Water

Unlike from Madras city, 13 districts are facing adverse conditions of acute water scarcity and migration of landless labourers from these districts in search of employment has already begun. The worst water scarcity districts are Tiruchi, Periyar, Salem, Ramanathapuram, Pasumpon Thevar, Kamarajar, Chidambaram, Nellai Kattaboman, Kanyakumari, Madurai and Dindigul - Anna districts following close behind. These are the districts where the precipitation during the North East monsoon last year was below normal and so drinking water scarcity started in April itself. The government has made 2 grants - of Rs. 6.72 crores and an additional Rs. 6 crores to these districts from which 1773 bore wells were drilled and all existing wells deepened. The government states that all rural habitations will be provided with atleast one source of water. TWAD is implementing a major water supply project with Rs. 322 crores as World Bank aid. In particular water supply scheme to 81 medium towns and 955 rural habitations are being provided to Coimbatore, Madurai and Salem. A question that the government - both at the state and local panchayat level - should face is whether provision for meeting drinking water scarcity in every summer period should not be provided as a normal part of every annual budget

Transportation

Tuticorin Port reports a record handling of cargo at 58.68 lakh tonnes and 741 ships during 1991-92. 7.68 lakh tonnes were exported through the port and 5.1 lakh tonnes were imported. The Madras Port also reports a record traffic in 1991-92 to the point where other ports like Bombay are being compared with its throughout. On road transport in the state, the government reports that in 1990-91 its 15 passenger transport corporations with a total fleet of 14,251 buses, have made a net loss of Rs. 43.87 crores. All the Corporations except the Thanthai Periyar Transport Corporation suffered losses, following the losses registered in the previous year. The question arises whether some of the state transport corporations should not be let to private operators, the state supplementing the operation in the case of remote rural areas and out of the way hilly places. Indian Airlines reports that the first aircraft hanger in the southern region is being set up in the Madras airport and will be ready by end of 1993. This would replace the use by the Indian Airlines of the International Airport hangers on a rental basis and would cost Rs. 860 crores. The hanger will have all modern equipment facilities and will be able to house wide bodied aircraft like Airbus 3000. It is essential that Madras airport should be provided also with full repair and maintenance facilities so that national and international carriers do not have to wait for parts to be flown in from Bombay.

Housing

The state government's construction undertaking reports a positive performance in 1990-91 recording a net surplus of Rs. 5.919 crores as against the depressing deficit of the previous 487 lakhs, the deficit being Rs. 15.07 crore in 1986-87 rising to Rs. 54.31 crore in 1987-88, Rs. 14.45 crores in 1988-89 and spurting again to Rs. 51.87 crores. This report made by the government study relates to the Tamil Nadu Adi Dravidar Housing and Development Corporation and Tamil Nadu State Construction Corporation. The deficit of the Adi Dravidar Corporation is understandable but not that of the other companies serving the middle income and higher income groups. The combined turnovers of the Corporation are rising from Rs. 840.35 crores in 1986-87 to Rs. 1852.63 crores in

1990-91. The question raised by the work of the other Corporation is whether the state government should be in the business of house building except for the really poor and whether it should not leave construction to the private sector. In particular should these government companies take up work abandoned by contractors?

DA

The government in late May announced the grant of an additional instalment of DA to its employees on par with the Union employees. The question that is raised-not just for Tamil Nadu but for the country as a whole is the rationale for compensating government employees and those working in the organised sector for every price rise. The question is related to two questions - one a question of social equity and the other on the economic front. While the vast majority of workers - the landless agricultural labourers and the small self employed in the informal sector - have no compensation from inflation and rising prices, should limited group have the facility. The economic question is that every increase of DA injects so many thousand crores of rupees into the economy and fuels further inflation. The DA is thus both a consequence and of a cause of inflation. It is a case of the tail wagging the dog. Should not this vicious circle be broken soon?

National

Plan

The major event in regard to the VIII Plan was the approval of the Plan for 1992-97 at Rs 7,98,000 crores, with the public sector outlay at Rs. 4,34,000 crores (45 per cent of the total outlay) by the National Development Council at its meeting on May 21 & 22. The outline of the Plan have been set forth in earlier issues of the Bulletin, the only change being the increase in the Public Sector outlay by Rs. 34,000 crores which sent up its share from 43.2 per cent to 45 per cent. The growth rate has been fixed at 5.6 per cent for the Plan which seems high in light of the recession, austerity and structural adjustment through which we are passing. But given the fact that the latest RBI Report on Currency and Finance for 1990-91 forecasts GDP to grow at 2.5 per cent in 1991-92, the 5.6 per cent may not be unattainable. The real problems are that the monsoon this year will be below normal, and reports on drought conditions in various parts of the country are being received, that manufacturing has declined by 2.5 per cent and industrial production by 0.9 per cent during the first 10 months of 1991-92 and the persisting high inflation rate at 12-13 per cent - these problems are the real obstacles to the Plan. The Plan has always been an indicative one, as it functions in a mixed economy, but this Plan is really indicative that it refers to only 45 per cent of the total outlay and its effectiveness will depend on how closely it programmes this amount and monitors its implementation. To sustain the growth rate of 5.6 per cent, the 21.6 per cent assumed savings rate is not high, but this will de attained only if the governments, dissaving comes down from 2.3 per cent of GDP to 1.1 per cent, calling for some serious cuts and in some cases belt tightening. Similarly the high savings rate assumes high surpluses from the public sector, which call for a radical change of policies. Parallel to the reduction of budget support to the public sector, the budget support to infrastructure and social sectors will be increased from 70 per cent in the VII Plan to 80 per cent in the VIII Plan. This is good news for the soft sectors of education, health, family planning, and the call to them is to spend the increased resources effectively. The growth in the Plan will be a product not of increased investments as in the past, but of improved efficiency of investment in both the public and private sector. Will this happen? The question is raised because the crucial infrastructure of power as noted earlier is likely to be in short supply as well as the other decisive element, Crude oil. Without these, investments cannot produce efficient results and so every effort should be made to improve the power and crude oil sector. On the question of resources, the finance minister presented to NDC an austere menu comprising scrapping Dearness Allowance in the public sector, keeping the fertiliser subsidy under control, ensuring remunerative pricing of power, irrigation facilities and petroleum products and privatisation of state road undertakings. There is little chance of this menu being accepted, but it is the kind of hard decisions confronting the people and trade unions, along with some means of keeping under some control excessive profits in the private sector and black money generation, which need to be faced squarely. His call to the union and states to increase their BCR, reduce non plan expenditure, raise more revenues and rely less on borrowed funds including small savings is also a well timed and needed call. At the NDC, according to the Deputy Chairman of the Planning Commission, besides endorsing the VIII Plan, i) there was strong pressure from the state to transfer the rural development funds to the states which was not accepted but instead it was agreed that the rural development programme will be restructed and provided flexibility so that states could choose which programme they wish to implement. The present uniformity will be replaced by the flexible method of administration. ii) there was also a demand by states to make the small savings more attractive, against which it was pointed out that this would make the scheme more expensive to the states. iii) there was general agreement that the implementation of the schemes and plan was crucial and for this the administrative machinery needs to be improved and streamlined.

Prices

The rate of inflation in April on the basis of the whole sale price index on a point to point basis was 1 per cent, the index standing at 218.6 during the week ended April 25. There will be cascading effect of the steel price hike, which on May 19 was raised to 115 per cent : then there will be the seasonal rise in foodgrains and other prices and the upward revision of the telecom tariff. The annual rate of inflation computed on the variation in the index was 13.27 per cent on April 18, 13.09 on April 25, 12.7 per cent on May 2, using the provisional index for the current year and the final index for the previous year. But if the provisional index for both years are used, the rate becomes 13 3 per cent. The increase in the consumer price index over the 12 month period ending March 1992, in terms of the index for agricultural labourers was a high 21.9 per cent. It is pointed out that 70 per cent of the nation's work force is engaged in agriculture and related occupations, this is true inflation rate, (and not the subdued wholesale price inflation rate). On top, the wage incomes of the farm workers, and those in the unorganised sector are not indexed to inflation, as pointed out earlier shows the unreality of using the wholesale price index to measure inflation as it affects the majority of workers. The increase of 21.9 per cent till March 1992, comes on top of an increase of 16.6 per cent rise in the previous year ended 1991.

What then is the way out? The government and RBI keep stressing monetary expansion and the fiscal deficit to explain inflation. RBI reports a sharp rise in broad money supply of over 19.5 per cent in 1991-92 over the 14.9 per cent registered in the previous year. The Finance Ministry's computing the data of broad money increased by Rs. 51,709 crores (19.5 per cent) between March 31, 1991 and March 20. 1992 shows that this run away inflation should be arrested. Accordingly the rate of growth in net RBI credit to the government has been brought down from last year's 20.1 per cent to 12 per cent - but even so inflation continues on its inexorable way. And the disturbing part of the inflation is that the index of food articles price during the first 2 week rose by 0.97 per cent (against 0.57 per cent last year), including the sharp increase of 14.75 per cent for fruits and vegetables. Action to hold back inflation by the government is to reduce the various deficits - budget and fiscal and RBI to reduce money supply. But this is also slowing down industrial growth and there is talk of inflation and stagflation. So there has to be multipronged attack on inflation - to increase the supply of food articles and to reduce credit and money supply simultaneously.

Budget

On May 6, Parliament approved the Finance Bill for 1992-93. Its highlights are : i) responding to middle class demand, income tax deduction under 80L restored with a ceiling of Rs. 7000 : ii) under section 88, ceiling on investment level increased by Rs. 10,000 to Rs. 60,000 crores; iii) within the overall ceiling of Rs. 60,000 a sub ceiling of Rs. 10,000 for equity linked schemes : iv) preemptive taxation for small traders expanded to include tailors, typewriting, photocopying, repair and laundry services and eating places; v) the proviso that people opting for pre-emptive taxation will not have other sources of income charted to tax; vi) persons having taxable income from other sources not exceeding Rs 5000 a month eligible for opting for the new scheme; vii) tax rate of firms, associations and bodies cut from 40 to 30 per cent; viii) for venture capital companies concessional rate of 20 per cent proposed; ix) to help small firms 100 per cent deduction of partners' salary upto Rs. 50,000; x) tax reforms committee to examine procedures for direct tax. The finance minister announced further direct and indirect tax concessions of Rs. 602 crores, comprising restoration of 80L tax deduction referred to above, reduction of the long term capital gains tax on firms and venture capital companies, a 50 reduction in gold import duty from Rs. 450 to Rs. 220 per 10 grams, and other tax concessions referred to under highlights. Lok Sabha was able to examine and approve the demands of only 11 ministries and so guillotine was applied to grants for 33 ministers and departments and 6 union territories, which means that Parliament approved Rs. 2,33,398.91 crores at one - go in 10 minutes. This meant that important ministries like Defence, once more escaped scrutiny and key ministries like communication and tourism, social welfare and health and family welfare were not discussed. The telecom tariff announced by the Minister of Communication soon after raised trunk call charges, placed limit on duration of phone calls, made call to peripheral areas cheaper and provided group dialling facility in rural areas.

Stock Exchange

In May the major event was the transfer of large funds - varying from Rs. 2000 to Rs. 4000 crores - to Mr. Harshad Mehta for share purchases in which several banks including SBI, National Housing Bank, the United Commercial Bank and others were involved. This led to the spectacular rise of the Bombay Stock Exchange index in the first 3 months of 1992 and the decline by 222 points on a Wednesday on top of Tuesday's record rise of 530 points. The run away boom was covered by adulterated liquidity. Money was 'created' in the financial system with massive issues of Bankers Receipts in support of fictitious transactions in securities, pushing up share prices. The government announced in Parliament that CBI has been ordered to investigate the involvement of the State Bank of India, UCB, NHB in the stock market scam. But it should also enquire into the role or non role of the finance ministry and RBI. It is pointed out that the 3 institutions involved - the stock exchange - exbureaucrats whose incompetence in not detecting the growing divergence between the financial sector and the real economy, exposed their incompetence and brought down the prestige of technocratic rule. Now what is needed is: a) the money that has been swindled will have to be identified and returned to the banks, b) the market should be allowed to liquidate the speculative positions built with bad money and c) the guilty should be punished.

Economy

The most serious development in May for the economy of widely reported drought conditions prevalant and spreading in several states - the worst hit being Gujarat, Maharashtra, Rajasthan, MP, Kerala, Karnataka, 2 districts in Orissa and parts of Tamil Nadu where the water scarcity was earlier noted. Cherrapunji which is noted for receiving the highest rainfall in the world is now facing an acute water crisis due to loss of forest cover. What has triggered the drought is the erratic south - west monsoon with its effect on the kharif crop which will be 5-6 million tonnes short this year. Also Gujarat's oilseed and Kerala's plantation crops have suffered damage. This shows the gaps in our development strategy whenever a partial failure of the monsoon destabilised over agriculture and pushed people to the state of deprivation. This also shows that official claims that agriculture has been insulated from the vagaries of the monsoon and that potable drinking water has been provided to all but a few habitations are false. The states who have been hit have asked for further relief over and above what has been available to them from the Calamity Relief Fund - 4 states - Gujarat, Maharashtra, MP and Karnataka - have asked for Rs. 1710 crores. Here advance release of funds - advances even from next year's relief fund can help. But the amount should be raised to a more realistic level than the present Rs. 804 crores. Here a plea is made again for a review and restructuring of the drought relief programme both to plug its leaks and help it create durable assets. Basically it is adequate and effective land and water management policies which will help the country deal with droughts effectively. In May, a number of studies on the economy were published. RBI's report on Currency and Finance fot 1990-91 estimates that GDP growth in 1991-92 will be 2.5 per cent, agriculture a 2.6 per cent growth, food grains at 171.1-172.6 million tonnes. During the first quarter of 1991-92 industrial production declined by 0.9 per cent, with a 2.7 per cent decline in manufacture. The stagnation in the industrial

sector is attributed to import compression measures. The report however is an indictment on the government's anti-inflation, anti-deficit policy - on its fiscal monetary policies. For instance fiscal policy pursued surreptitiously brought down RBI net credit to government only in the last month of the financial year. The Asian Development Bank presents an optimistic picture of Indian economy for the next 2 years, forecasting a growth of 4.3 per cent to 4 8 per cent and states that with the financial sector reforms and larger foreign investment inflows the economy will be looking up. A World Bank report, Poverty Reduction: a handbook and operational directive, states that growth in the industrial employment is a key priority to future poverty reduction in India, as agricultural growth will be insufficient to absorb all potential new entries into the rural labour market. It further states that the first priority in India should be creating employment and improving the labour market by removing anti-employment and protectionist trends in the industrial sector, easing restrictions, employment, restructuring codes and eliminating small business protection schemes that constrain growth. That is its basic bias. Another World Bank study on India's agricultural subsidies criticises India for spending so heavily on such subsidies which have benefited the wealthier and agriculturally advanced regions and large farms rather than the needy ones. It cites the case of irrigation in Punjab and shows that Punjab received benefit of Rs. 1027 on gross cropped area on an average in 1980-87 compared with an all India average of Rs 511 per hectare. It repeats the above Bank study in stating that agricultural growth will be insufficient to absorb all new entrants into the rural labour force. An Indian study on poverty and planning in India speaks of its concern of low productivity spreading and advocates professional management and free and equitable competition between the public and private sector and using technology to spread knowledge and information to any one needing it and not be a monopoly of the elite. These are the elements which our planning should embody. Finally there is a happy convergence from Pakistan, the 1992 Human Development Report on the imperative need for "India and Pakistan to freeze their military expenditures at its current levels during the 1990s, they could reap a potential peace dividend of $50 billion during the current decade, enough to put all their children in schools, provide primary health care and clean drinking water to every one and banish malnutrition by 2000. The Pakistan opposition leader also made this plea in her National Assembly. On May 29, the government issued an ordinance abolishing the capital issues coutrol act of 1947, which abolishes the office of the Controller of Capital issues. This is forecast in the budget speech. The office becomes redundant with SEBI having statutory power covering all aspects of the securities and share market.

Industry

Industrial production during April 1991 - January 1992 declined by 0.9 per cent, according to IIP index. The January 1992 index was -0.4 per cent compared to 1991 January. So using the IIP data for the period upto December 1991 and the quick estimates for January 1992, the index stands at 203.6 which is - 0.9 per cent referred to earlier. The upsetting factor is that the continuing decline in the industrial index month by month during 1991-92. There was a marginal improvement of the Industrial performance, when the just released IIP index for February stood at 229.4 which was plus 3.4 per cent as compared to February 1991. Taking this performance into account, IIP states that for the first 11 months the industrial growth index works out to 206.2 which is -0.4 per cent compared to the corresponding period in 1991-92. The Planning Commission in its assessment for industrial development during the VIII Plan estimates that capital goods, electronics and jute industries will be adversely affected. The capital goods sector will be hit by the freedom given to entrepreneurs to select and import capital equipment and technologies on the one hand and its inability to meet global competition, on the other. In time, the leading capital goods manufacturers will update their products and become suppliers of world class capital goods. Similarly the opening up of the economy will lead to restructuring the entire electronics industry, including closure of a number of sub economic units which are engaged primarily in screw driver technology. In time, there will be consolidation and amalgamations of units which along with increased tie ups with foreign firms will provide a good basis for the sustained development of the industry. The jute industry is resting on government orders and has a bleak future unless it takes up modernisation. Similarly with low capacity use, poor productivity, inadequate sales, long delivery period and high production costs, the shipbuilding industry is moribund, with the ship repairing industry which has potential to meet the growing demands and earn foreign exchange. The petro chemical industry which has been delicensed will grow as taxes on it are reduced. The fertiliser industry in effect will be bypassed by the economic liberalisation against the control on its inputs and prices. On the other hand, the the Planning Commission states that cement, sugar, textiles and steel industries are poised to do well. The cement industry is internationally competitive and will grow in both production and exports. With the focus on increasing the per hectare yield of sugarcane, the sugar industry will be expanding a major restructuring with power looms in the lead. Several 100 per cent EOUs in modernised composite units have come up and this is a healthy trend. But the outlook for handlooms is not promising. The Department of Programme Implementation calls attention to the escalating costs of industry - 307 projects that it has monitored have increased their costs by 34.9 per cent and 177 of these projects are behind schedule. The government reports to Parliament that RBI have approved 384 foreign investment proposals involving direct foreign investment of Rs 1256.89 crores, which is a 12 fold increase over the previous year's approvals. The Small Industries Development Bank of India (SIDBI) was established and became operational on April 2, 1990 and is functioning through its head office in Lucknow and a network of 5 regional and 21 branch offices. In its first year 1990-91, it provided Rs. 2823.8 crores as sanction to the small scale units, which was 35.3 per cent higher than the previous year, making the cumulative long term credit Rs. 5343 crores and working capital of Rs. 1544 crores. For the 27,17,880 units listed by RBI this is totally inadequate and needs to be stepped up quickly. SIDBI has also initiated steps to hasten the pace of rehabilitation of sick units but here the coverage is small and the pace is slow. Both needs to be increased. On individual industries DOE reports a negative growth rate, recession in the television market, and a drop in production of main frame computers in 1991, when the industry recorded a decline of 5 per cent. In the fertiliser industry, manufacturers are forming a cartel for the import of

ammonia and phosphrous acid in the second half of 1992. The Planning Commission reports that it has approved a plan outlay of Rs. 1234 crores for 1992-93 for the fertiliser sector in the Department of Fertilisers.

Public Sector Enterprises

Reports on the performance of the Public Sector units are unsatisfactory. The Department of Heavy Industry reports that of the 49 PSUs, 27 losing units might wipe off the Rs. 285 crores profits from the remaining 22 units in 1991-92. These 49 units which projected to make a small profit of Rs. 14 crores in 1991-92 and in 1991-92 and in 1992-93 their losses will be a high 173.31 crores. The shares of 5 public sector units - BHEL, HMT, Andrew Yule, Hindustan Cables and HPF - have been allotted to the financial Institutions. This process of disinvestment needs to be extended to chronically loss making units. The overall financial performance of the 183 enterprises was Rs. 356.8 crores in 1991-92 compared to the Rs. 4811.28 crores in 1990-91. 85 of them earned a net profit of Rs. 2457.20 crores, while 98 units incurred a net loss of Rs. 21101.01 crores which was an increase of Rs. 103.83 crores over that of the previous year. Of the 21 sector groups 9 producing steel, minerals and metals, power, ferrous, chemicals, and pharmaceuticals and telecom services have shown improvement during the first half of the current year, while seven sectors - coal, petroleum, heavy engines medium and light energy, consumer goods, textiles and financial crisis record deterioration. The Annnal Plan for 1991-92 envisages a total public sector outlay of Rs. 72,313 crores against the previous year's outlay of Rs. 64,707 crores implying a stepping up of 11.7 per cent. The contribution of public enterprises to the plan is estimated at Rs. 14,956 crores (union Rs. 16084 crores states - Rs. 1128 crores) which is not satisfactory. The government states that it is offering a part of equity in 30 public sector units to employees as part of its disinvestment policy under which so far 8 per cent of government holding in 30 PSUs at a total cost of Rs. 3038 crores have been transferred. The offer of equity to its workers is a welcome step. A regrettable factor is that the Comptroller and Auditor General reports that the accounts of 85 government units contained errors of under statement of losses of Rs. 130.23 crores by 29 compared in 1989-90 on top of the previous year's Rs. 100.87 crores by 18 of them. There was over statement of profits of Rs. 5591 crores by 36 units and understatement of profits of Rs. 81.49 crores by 23 companies. There is no excuse for these errors of ommission and commission as they make the presentation of accounts to Parliament a futile and unreliable exercise.

National Production Front

Steel

The Ministry of Steel estimated that the liberalisation measures will reduce the current steel demand - supply gap of 1.8 million tonnes to 0.91 million tonnes by the end of the VIII Plan, 1996-97, with secondary producers doubling their production to reduce the gap. Their output will increase from the current 6.27 million tonnes to 11.03 million tonnes at Plan end, while the main producers will increase their production from the present 8.3 million tonnes to 13.06 million tonnes - Vishakpatnam steel contributing the most increase from the current

395,000 tonnes to 2.16 million tonnes by 1996-97, Bokaro and TISCO increasing by 1 million tonnes each. The Caparo group, London, headed by Swaraj Paul expects the 12,000 crore Daitari steel plant in the Cuttack district to begin commercial production at the end of 1996. SAIL announces that its energy conservation efforts in 1991-92 resulted in a saving of Rs. 63 crores. This has important lessons for all steel plants in energy consumption per tonne of crude steel. Further, SAIL facing the 60 per cent power cut in Karnataka, is planning to participate in Karnataka Power Corporation's hydro power in order to ensure 35 MW power for the Viswesvaraya iron and steel plant at Bhadravati. Thus side by side with expanding production, various means of saving energy are being explored, particularly by the large steel producers.

Crude

With the declining domestic production and the rising cost of imported crude and petroleum products (Russia has decided to implement its 1992 trade protocol with India in supplying 4 million tonnes of crude plus some kerosene and diesel valued at $650 million), the Planning Commission's advise and warning to monitor the demand for petroleum products should be taken seriously and put into effect immediately. The commission estimates that the balance life of oil and gas reserves in the country at less than 25 years, so that an uncontrolled increase in demand for petroleum products will make the country's balance of payments prospects an impossible one. The commission estimates that at the present rate of consumption, the demand for petroleum products will be 81 million tonnes in 1996-97 and 125 million tonnes in 2001. The higher oil imports to meet this demand will reduce availability of resources for investment in the post VIII Plan period. Hence it is necessary to i) expand existing refinery capacity, ii) adopt conservative measures, iii) pay attention to demand management and iv) develop substitutes. In this last item Natural gas is an important substitute and should be used in fertilisers, and petro chemicals, power generation and for extraction of LPG. These will save consumption of naptha in fertilisers and petro chemicals sector, furnace oil in the power sector and kerosene in the domestic sector. In the transport sector, compressed natural gas could substitute for diesel and petrol. The commission estimates that with the development of western offshore oil, crude supply will be 50 million tonnes in 1996-97, which will involve as import of over 30 million tonnes.

Coal

The coal scenario is not clear. On the one hand government informs Parliament of mounting annual coal production - 211.73 million tonnes in 1990-91, 229.29 million tonnes in 1991-92, and the target for 1992-93 which has been fixed at 238.20 million tonnes A CIL document, 'knowledge of insiders' states that Coal India which meets 68 per cent of the country's coal requirement has come out of the red in 1991-92 by paying Rs. 53 crores to the government and repaid Rs. 451 crores by way of loans to the government. The document says that a reduction of 5 per cent in unit cost of production has been effected and collection of coal sale during the year increased by 15 per cent because of the cash and carry principle. At the same time, the union minister for coal speaking at a CIL function states that there is need

for a time bound programme to reduce the high level of coal sales dues of Rs. 11,000 crores, and to bring down coal stocks and inventory of stores. He has called attention to the parlous situation of underground mining in which the government has invested a huge Rs. 4500 crores in machinery since the 70s but which hardly produced 30 per cent of the annual output and incurring a loss of Rs. 900 crores in 1990-91 and an estimated Rs. 1000 crores in 1991-92. This calls for not only an arresting of the trend in increasing of wage rates and for absorbing the DA by matching productivity improvement, a strict control over manpower which will have to be redeployed and retrained but also to replace the obsolete underground coal production technology used, by modern techniques and methods. The minister says that in hard coal production India at 4.80 per cent stands second to China's 6.13 per cent. This shows India is a poor second and every effort should be made not to pass around optimistic and gullible reports of achievements, but to make coal mining really productive and lucrative, particularly in regard to underground mining.

Non ferrous

Zinc has both plus and minus sides. On the plus side it reports the highest monthly production in March of zinc (12866 tonnes) and lead (5188 tonnes) and for 1991-92 a total of 85.509 tonnes of zinc and 32,730 tonnes of lead It plans a 40 per cent increase in the current year, 1992-93, at 1.67 lakhs (140,000 tonnes of zinc and 55,000 of zinc). It also reports that it has started exporting zinc (upto now India has been an importer), receiving export order of 750 tonnes from Bangladesh, Pakistan and UAE. In lead the country will become self sufficient this year. The negative side is that the report of the Comptroller and Auditor General pulls up Hindustan Zinc (HZL) for time and cost over runs. For instance the cost of Balara mine project increased from Rs. 1.161 lakh tonnes in September 1973 to Rs. 2.167 lakhs in October 1977 and there was a time over run of 10 months. Similarly the Rajputana mine which did not have a proper engineering study increased its cost from 44.75 crores in February 1977 to Rs. 78.30 crores in 1984. It also calls attention to the fact that in most of the mines and smelters, the targets fixed are below capacity. These negative elements need immediate corrective action.

Agricultural Production

Agricultural production is in the doldrums. The Department of Meteorology confirms that the south west monsoon will be late and below average. The Department of Agriculture points out that this second IMD bulletin does not refer to the "sluggishness" of the monsoon but to its late arrival. But the lateness of the monsoon could go along with a 90 to 95 per cent rainfall during the monsoon. This along with the use of short duration varieties for kharif which farmers are preparing themselves for could mean that the kharif crop could be good. The 1991 kharif production was 94.2 million tonnes against the 99.7 million tonnes in 1990. Hence the 1991 foodgrain production is placed at 171-173 million tonnes about 4 million tonnes less than the output in 1989-1990 The 1992 kharif is feared also to be sub-optimal, which the ministry attributes to the delay in deciding on the fertilisers subsidy. The aberrant rainfall if it is repeated again this year, will like last year lead to a fall in foodgrains production.

The parliamentary committee which is studying the fertiliser situation and subsidy and which was to report in mid February and is now expected to present its report at the end of the month, May. There are strongly conflicting views presented to it. The Union government and Punjab seem to be hopeful to achieving the wheat procurement target of 55 million tonnes this year. There are problems such as the week-long protest observed by the farmers in Punjab in early May. At the end of the protest week the government reports that it has processed 35.36 lakh tonnes of wheat, paying the farmers concerned a bonus of Rs. 25 per quintal. A crop insurance scheme, covering all farmers, and all crops against all risks is to be launched in one district in each state in addition to the existing computerised crop insurance scheme (CCIS) which covers only a few crops and offers a maximum risk coverage of Rs. 10,000. The new scheme, CCS, will offer an indemnity payment much higher than the premium collected from the farmers; this CCS is timely. A World Bank report on agriculture in India states that doubling food production by 2000 is urgent and can be achieved by maintaining past rates of crop yields but calls for a 4 fold increase in fertilisers applications. Since gains in foodgrain production increase the risk of soil degradation, misuse of particular spill overs from chemical applications and excessive draw down of water, can be countered by integrated pest management, minimum tillage, agro forestry, integrated crop and live stock management and soil enriching crop rotations to reduce land degradation and increase yields. This is the case for farmers literacy and education and social change.

Foreign Trade and B O P

In May there was both good news and bad news in regard to foreign trade. The good news was that the trade gap for 1991-92 was the lowest since 1980 at $1 billion. The bad news is that it comes through a decline in exports plus an even sharper fall in imports. The fall in exports was in the main part due to the sharp decline in Indian sales to the former Soviet Union. Exports to hard currency areas increased by 6.34 per cent, which was much lower than 14.7 per cent rise in 1990-91 and 10.8 per cent in 1989-90. Even so the changes in the world economy has not helped Indian exports - many industrial countries are slowly recovering from recession, Russia and the other countries of the former Soviet Union are beginning to import from India. There is a chance of a recovery in 1992-93. Without a large export recovery, the whole reform package would collapse, as the stabilisation of the Rupee exchange rate requires an inflow of hard currency. Such Rupee exchange stabilisation is the only means of preventing inflation and encouraging exporters to bring in their earning and not discourage export intensive imports. Did the fall in world price last year depress the value of both imports and exports, so that import compression was not so severe and export growth was not so poor as earlier imagined? To boost exports in the VIII Plan there is to be a further pruning of nagative lists of imports and exports (most raw materials and components have been removed), and a gradual reduction in both the level and dispersion of tariff rates. This should include as a priority reducing the rates on capital goods imports to boost exports. The partial convertibility of the rupee should be so handled that exporters are allowed to import at the official exchange rate or they should be allowed to convert their entire export earning, at the market rate as the EDU are able to. This would counter the negative 1991-92

export trend and further reduce its trade deficit from the 1.61 billion crores in 1991-92 (down from $5.93 billion in 1990-91) and boost the use of the special licenses for exports issued after March 1. Also the group license and transparent procedure announced in May to push up exports carry a number of items like motor vehicles, aircraft and delegation of powers to regional licensing authorities should expand exports. On specific items, the government reports that export of traditional goods have shown an impressive increase from Rs. 9256 crores in 1990-91 to Rs. 10,090 crores in 1991-92. Silk goods exports rose by 53 per cent and Rs. 675.56 crores in 1991-92. Between March and May 1992, 5 tonnes of gold were imported under the new scheme. Textiles exports are expected to touch Rs. 2500 crores by 1994-95 against Rs. 12,000 crores in 1991-92. The US to protect its intellectual property rights under Special 301 suspended duty free treatment to Indian pharmaceuticals and chemicals given under the generalised system of trade preferences. The US wants India to open up its domestic market for US textiles. It has said that an increase in its quotas for ready made garments from India will hinge on the market access available to US textiles industry. The US is thus taking a series of extreme protectionist measures while it wants other countries like India, China, Japan and the EC to open up their markets. This does not make sense for its trade and for world trade The government has given a major relief to garment exporters who do not need to give bank guarantee or make earnest money deposit with the Appraisal Export Promotion Council Now a legal undertaking is adequate.

Loans and Aid

World Bank and IDA announced in May a loan of $153 and IDA credit of $153 for the 365.3 million Second National Highways project. The World Bank has asked for partial privatisation of the railways manufacturing units as a condition for making a loan of $300 million for the import of rails, special steel, wheels, axles and other components needed by it. The World Bank is also making a loan of Rs. 670 crores to improve the technical, financial and staff positions of state pollution control boards. The World Bank announced in May two changes in its lending programmes to India. It announced a loan of $200 million for the National Power Corporation, as it has so far not agreed to make any loans to the power sector until its financial viability is improved. It also announces postponing the processing of the $400 million structural adjustment loan, till the details of the reform programme are available, which means that its review of the programme last month did not indicate a satisfactory status. The Asian Development Bank announced that its commitment of loan to India this year will be $1 billion, starting with the assurance of receiving assistance to meet its immediate commitment. ADB also announced in May that it is setting up a credit rating agency in India in order to identify and eliminate institutional gaps and deficiencies in the capital market. The Canadian government has stated that its loans of Rs 514.89 for Chemera Stage II is postponed because the Canadian government states that it does not have for the moment these funds. IDBI proposes to raise 350 million from the World capital market to help Indian companies finance their foreign currency loans. It will be noted that in May the multilateral agencies were not only making many loans but were getting increasingly involved in the country's economic policies. This should be watched.

International

World Economy

Unlike IMF's forecast that the industrial economies will grow by 1.3 per cent in 1991-92 and 2.8 per cent in 1992, in fact they grow by 0·8 per cent in 1991. In its latest World Economic Outlook published in Aptil 1992, IMF has reduced its 1992 forecast of 1.8 per cent and postponed to 1993 the long awaited rebound. The industrial economy output in 1992 has been reduced to $240 billion lower than its April 1991 forecast. By contrast, IMFs forecast for the developing country has been shown up to be low side, as these countries grew by 3.3 per cent in 1991, and are expected to grow by 6.7 per cent in 1992 and 5.4 per cent in 1993, mainly due to the recovery of Latin America and the Middle east. The third world growth depends on the fortunes of the well to do countries, whom IMF forecasts will be growing by 3.3 per cent, despite Japan's share prices crash. The 1993 rebound depends on the slow down in Japan and Germany being reversed and the Uruguay round being successfully completed. ADB sees the gap between saving and investment increasing in the 90s and the competition for exports building up. It says that as ancient barriers and fears had increased inter-regional trade and investment will provide developing countries with more markets for exports and new sources of finances for development. One only hopes that its forecast comes true.

World Development Report

The World Bank's world development report 1992 is both unique and sets forth the Bank's perspective on the environment as calling on the industrial countries to give the highest priority to ensure protection which will ensure an eco friendly industrial growth. The report points out that the big issues are not global warming and climate change or over consumption flowing out of under development. It prescribes more ecologically friendly development which will lead to better living standards, less pollution, less malnutrition, ill health and ignorance. It says that illiteracy and ill health are the biggest causes of environmental degradation and on this the industrial world must help the developing world. It argues that top priority needs to be given to issues like access to clean drinking water and sanitation which have not been emphasised by the wide ranging debate on the environment and environment policy because they do not stir passion like high dams, or nuclear power plants or deforestation of the Amazon. Yet they affect hundreds of millions and should be at the top of the environmental agenda. The North should provide the South with funds for global issues like the ozone layer and green house effect as a clean payment unrelated to aid, since action on these by the South will be also benefit the North. Further the intellectual framework of the Report (WDR 1992) departs from the traditional Bank's thesis of the central place of the market, and goes into areas where state interventions and incentives are needed and should be continued. The developed countries should argue at Rio that priority should be given to poverty alleviation and the improvement of the Quality of life. Solution to the global problems like the green house effect should be funded by the rich countries who have caused the problem. Every developing country has more pressing problems, like soil erosion, salination, and polluted water and air, while foreign help for these would be welcome, they should be financed by the developing countries themselves especially as they will also improve economic growth and welfare. The report emphasises the complementarity between good economic and good environmental policy. It convincingly argues against the environmentalist view that economic growth leads to environmental degradation and that it is possible to produce growth without environmental degradation. Where there is a conflict between growth and the environment, the report argues for cost benefit and cost effectiveness analysis to make the best choices which will recognise and reconcile the claims of economic growth and environmental constraints, leading on to sustainable development North-South issues will dominate the Rio meeting, but the most important environmental issues are national and must be tackled at the national level with its own funds. And most important are the policies and project that alleviate poverty, improve literacy and health and so set in motion the process of sustainable growth. The report has quantified the investment for environmental protection including, soil conservation, increased investment in sanitation, afforestation, and reduction of poisonous and polluting emissions at around $75 billions by the end of the decade. The additional income generated in developing countries by such investment will fully be compensated. A particularly striking system in the report is that poor farmers should be given property rights to the lands they till The report also draws attention to the urgency for prggressive reduction of chlorofluro carbon (CFC) emission, which have been playing havoc with the ozone cover. This is not easy as CFC is based on 5000 different applications to produce goods and services valued at $30 billion annually. Some start has been made in this insustainability CFC by water based and decreasing fluid in the electronics industry and hydro carbon. Of special interest to India and other developing centres is the finding that natural gas is the cleanest and most abundant energy source. India should quickly develop this source as its principal energy producer. While we are going in for globalisation, the WDR 1992 reminds us of the importance of the environmental factor in the efforts to accelerate the country's industrial growth and economic development. This is particularly important as we are emphasising FDR and inviting multinationalism. We need to be sure that they do not use technologies not allowed in their own countries and which could be used here to make quick and easy profits. These need to be built into our emerging policies and plans and programmes so that we can grow and grow in a sustainable manner.

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II. Agricultural Development in Tamil Nadu

Paddy and other crops

May recorded two major events in the life and work of the state's paddy farmers First, the samba season procurement from the farmers mainly in the monopoly procurement area of Thanjavur district and parts of Tiruchi and South Arcot which crossed 12 lakhs tonnes by the end of the month was an indication that the farmers in the delta were able to secure a higher paddy yield. The mono poly procurement is due to end on June 30, but it may be extended till end of September which means that farmers holding stock biding the June 30 deadline; will then come forward to deposit their stocks with the Civil Supplies Corporation as they will not be in a position to hold on to the stocks for the longer period. Even without this unloading of the stocks by farmers. this year procurement could end with 12.3 to 13 tonnes. This also shows that the PDS which has now an off take of 1.75 lakh tonnes can rely on the government stocks this year to meet the offtake demand, as the union government may not be able to increase its monthly quota to Tamil Nadu which is around 60,000 tonnes, and AP with its low procurement not being able to provide for additional rice purchases from Tamil Nadu. In any case as the PDS was able to meet all its demand last year when its procurement was 9 lakh tonnes, now with 12 lakh tonnes in hand, it can meet an increased offtake for the next 4 months to 1.5 lakh tonnes. The offtake during April was a low 1.1 lakh tonnes. The other event affecting the work of the state farmers is the decision of the government to open Mettur on the due date, June 12, which will be done after 8 years when Mettur either could not be opened or opened only 4-6 weeks after the due date. The Mettur water which will begin to flow on June 12 will meet the farmers, 3 months duration kuruvai crop. For this, the strategy relies on the Karnataka government carrying out the water Tribunal's interim decision. This is extremely doubtful and so the strategy should also provide for the 97.55 ft of water in Mettur at the end of May which will normally last for 50 days, should by economic water use and management by the farmers be stretched out to about 50 per cent more of their time. The farmers will then have to accept also the turn system which they are used to, as they will need the water till September end. The curious fact is that the cauvery has now water flowing well above the Tribunal's interim award which ranges between 2.01 to 2.51 tmc from January to May and the prescribed amounts are 10.16 tmc in June, 42.75 tmc in July and 54.72 tmc in August falling to 29.36 tmc in September, 30.17 tmc in October, 16.00 tmc in November and 10.33 tmc in December. The area covered by the farmers for kuruvai is 5-6 lakh acres in Thanjavur and Tiruchy districts. The farmers have started making preparation for raising the kuruvai paddy. Kuruvai nurseries have been raised, using water from filter points, along with community nurseries which are becoming popular. The Agricultural Department on its side is readying itself to supply the farmers with seeds, fertilisers and pesticides. The district cooperative central banks in the districts of Tiruchy, Thanjavur Nagapatinam, Quaid-e-Milleth and Pudukottai are also gearing themselves to provide the farmers short term crop loans. Farmers growing cotton. groundnut and sugarcane report normal growing conditions and are expecting the onset of the southwest monsoon to augment their water supplies espially in the sugarcane areas.

Research results

In May 37 research reports were recorded. Of these attention is called to five groups of reports. The first group relates to rice paddy. Annamalai University reports that deep bore wells water which was saline used by Kuruvai farmers in Thanjavur to supplement the meagre cauvery flows, and while gypsum application can ameliorate the short term effects on micro flora and soil

enzimes, in the long run borewell water adversely affects the soil. The kuruvai farmers are advised not to use it. Second, the same institutes show that weed is in competition with direct sown rice and advises that CR 1009 is better for such direct sown cultivation, that the critical period for the weed competition is the first 40 days after emergence and the crop should be kept weed free for the first 50 days. Third, the Regional Agricultural Research Station in Kerala has released a new high yielding medium duration variety of rice, Ptb 48, for assured water supply areas. Fourth, the National Pulses Research Centre, Vemban reports that as paddy seeds sown directly are subject to moisture stress affecting germination, the seed hardening cost effect techniques where in the seeds are soaked in salt solution and dried should be used. The Central Rice Research Institute (RRI) Cuttack has released 4 new HYV varieties of rice. The lunishru variety is suitable for saline water areas, the santa variety for rain fed upland and the other 2 varieties-adibra and seema-are suitable for growing in shallow lowlands and flood prone areas. A second group to assist fruit and vegetable growing farmers comprises: a) Mahabusbad's Krishi Vigyan Kendra's demonstration that sunflower protection developing rabi with well drained, deep, natural and fertile soils can yield increasing returns; b) Annamalai University's demonstration of how fruit rot and dieback fungi in chilli can be countered using 3 simple steps; c) TNAU Vridachalam station's experiment of what is the optimum fertiliser (urea, superphosphate and muriat of potash) that results in a higher cashew yield: d) TNAU's use of agro wastes to make coirpith compost a good nutrient : e) the Vemban research centres work on the control measures to counter yellow vein mosaic in bhendi. Third and related area the reports on sugarcane and coconut the Pondicherry Krishi Vigyan Kendra demonstrated that modified farms of urea (20 kg NHA) increased cane yield by 10-20 per cent similarly TNAU's Melalathini sugar cane station shows that 3 rows of soyabean between the paired rows of sugarcane is a counter to the early shoot borer which attacks the cane crop : Bhavaninagar's agricultural research station has demonstrated the control measures to eliminate white grut in sugarcane: the Veppakulam coconut research station domonstrates that the use of neem seed powder protects the coconut from black beetle. Fourth, for the fruit growing farmers the Vallonad agricultural college has shown how the granulation disease in sweet orange can be averted by providing optimum irrigation and combined use of chemical fertilisers and farm yard manure; UAS Bangalore demonstrates the means of controlling the stem borer in mango bug, destroying the — affected parts and using chloroform or petrol to kill the germs. TNAU has released a medium sized Jack tree, Palur I, for high density planting: and the horticultural college in Periyakulam shows how through chemical control the tea mosquito bug in guava can be eliminated. Finally for animal husbandry farmers the college of veterinary science, Tirupathy advises using antimosa, anthiomedia and other such drugs to counter snoring diseases in cattle; Kattupakkam's Krishi Vigyan Kendra shows that clam meal is an ideal feed for prawns and means of multiplying them fast. NRCE, Hessan recommends a course of treatment with hyper immune serum plus oral administration of sulfamidine to stop over eating disease in sheep; the sheep research station is Sandiyanullur has worked out a balanced diet of pelleted nutrition for rabbies : and VC & RI Namakkal recommends use of a killovaccine to control Anaplasmatics in sheep.

Plantation crops

The Plantation crops scene in May both at the global and national level is depressing. The *tea* crop is forecast to increase by 1 per cent in 1992 at the international level which is unlikely to be realised. With prolonged drought in South India, the first quarter has recorded a loss of 10 million kgs. with Tamil Nadu recording the sharpest decrease. For the country the first quarter, January to March, recorded a decline to 44.12 million kg from 58.67 million kg in the previous year. Sri Lanka's output has also slowed down and so have that of Kenya and Indonesia. For the second successive year, world tea prices have declined. In India prices fell by 9.8 per cent in the first quarter. With prices in several of the producing countries ruling below costs, there could be a cut back in estate inputs and capital investments which will reduce production in the coming year. On the demand side, a set back is inevitable given the fall in the buying of the ex USSR. Inventories have fallen to low levels and so any spurt in demand will send prices up and that is what producers hope for. In *coffee*, the World price has reached a 17 year low. There is general agreement in all producing countries that there is need for concentrated action to support prices, it is hoped that there meeting at the end of May of leading coffee producers will lead to the basis for a new International Coffee Agreement, which can be finalised at the June meeting leading to agreement on economic clauses to stabilise the coffee market. The Brazilian crop in 1992-93 is likely to be smaller, with the possibility of a firm reduction in 1993-96. Colombo has imposed a 5 per cent cut in payment to growers and Ivory coast the largest producer in Africa facing a cash shortage and so has delayed taking delivery of coffee from growers, Demand for coffee has not fallen but supply and inventories especially of Robusta are high. Now with the Brazilian production decline there is hope of a pick up in prices. On *Rubber* India along with Indonesia and Thailand achieved record rubber production in 1991. During the first quarter of 1992, the International Natural Rubber Organisation reference prices was just at the buffer stock level "must buy". This is due to lower prices of synthetic subtitutes, currency fluctuation and the growing imbalance in supply and demand. In 1991 the European tyre market declined by 7 per cent and the US tyre market by 3 per cent, while Japan witnessed a slack in production and tyre sales. India has now emerged as a rubber exporter. With demand not increasing there is a fear of a further fall in rubber prices. Hence there is gloom in the global rubber scene. There is a special effort to increase rubber production in India and in this connection the World Bank's offer of aid for developing the rubber plantation in Tripura should be noted. There have been some problems in this matter with the Union and Tripura governments in disagreement on the deforestation involved. This should be settled and the plan to open up 24,000 hectares of rubber plantation in the North East region should be pursued. India's exports of rubber is somewhat misleading. What is being exported are some stocks in STC and they were imports for which there was no takers. In 1992-93 the Rubber Board would be increasing the area of replantation and new plantation by 55 per cent and was included in non traditional area The question is whether it is premature to plan for exports now. In regard to

spices, the performance of pepper and cardamom continues to be disappointing. Infact it was the minor species-coriander, garlic and curry powder which kept the spices front alive. Although India is the largest producer of spices employing 2 million hectares of land, its share is only 25 per cent of the global trade, fetching even a lower proportion of value added at 14 per cent. There have been sharp fluctuations in spice exports and this should be straightened out to meet on a reliable basis the export demand. Again value earned has not kept pace with the export volume and there is need to increase and improve both the volume and productivity of our spices production. There is need to replace the continuous use of low variety, unclaimed holdings, infestation of pests and concentrate on use of improved technology and land and water use. *Cashew* kernel has a high production and export potential but its production falls short of both domestic and export requirement necessitating imports. Cashew products which was 2.95 lakh tonnes in 1990-91 is estimated at 2.50 lakh tonnes in 1991-92. Prolonged winter is stated to have affected the production in Kerala which accounts for nearly half the country's production. This is one major reason why the exports depend on imports. The annual earnings from cashew kernal exports have crossed Rs. 41.0 crores, representing nearly 12 per cent of the horticultural and plantation crops foreign exchange earnings. The export potential of cashew kernal is really vast and amounts to extensive exploitation. We should resist the temptation to import raw cashew nut because it is cheaper in the world market and so can import them for re export. We need to expand our production of cashew.

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III. Industrial Development in Tamil Nadu

The May record of Tamil Nadu's industrial development had the usual positive and negative features, with the positive ones dominating.

On the positive side there were 14 items to be noted. *First*, an *industrial potential study* by CII of Mayiladuthurai and neighbouring taluks in Nagapattinam, Quaide Millet and Thanjavur district needs noting. The study covering Mayiladuthurai, Sirkali, Taragampadi, Nannilam and Kodaivast in the Nagapattinam Quaid-e Millet district and Kumbakonam and Thiruvadumaruthur taluks in Thanjavur districts recommends 8 projects based on their human and natural resources-the range of the agricultural cammodities, their endowments in its coastline, natural gas, traditional artisan skills, towns and national heritage centres, skilled manpower and research institutions-namely 1) activated carbon based on paddy or coconut husk and shell, 2) bio fertiliser and bio pesticides, 3) rubberised coir, 4) solvent extraction and refining of solvent extraction of oils, 5) sodium silicate with soda ash and paddy husk as raw material and natural gas as fuel, 6) shrimp farming, 7) iodised salt and 8) fruit processing (mango, banana and guava) and asceptic packaging. The Mayiladuthurai centre has 3 industrially most backward taluks and 2 industrially backward taluks which will be eligible to various state government concessions. *Second,* (except for agriculture and allied activities investments to be referred to under the negative features), ***investment in other categories of the state Public Sector Enterprises*** recorded growth in 1990-91 over the previous year. The development finance group achieved the highest increase in investment at Rs. 106.47 crores. The review of the 58 state public sector units for 1990-91 presented to the Assembly reports that the number of units declined from 63 in 1988-89 to 58 in 1990-91 with aggregate investments in them increasing from Rs. 1874.11 crores to Rs. 2048.23 crores, with a 20.11 per cent growth, TN Newsprint topping the list. *Third,* in order to counter growth sickness on instruction from the government, the ***credit policy of the industrial development corporation*** is being tightened to avoid misinvestment of credit. The debt equity ratio which is 1:2 is being changed and SIPCOT and the credit agencies have increased their rate from 1.45 per cent till last year (1990-91) to a hefty 20 per cent. SIPCOT's loans during the year were a little above that of the previous year at Rs. 65 crores. There are however overdues of Rs. 110 crores which is being reduced. *Fourth,* at long last on May 1, the Union announced the clearance of the Rs. 1725 crores ***aromatics project*** which will generate further investment of Rs. 2000 to Rs. 30000 crores in down stream units. Now MRL & SPIC with the government department should pursue the approval so that there is no delay in the implementation of the project. *Fifth, Morgan Industries* announced the setting up of a plant to manufacture BOPPC basically omate polypropylene and PVC packaging types and a variety of adhesives for different applications. The company's Rs. 1480 crores project is coming up at SIPCOT Industrial complex. *Sixth,* Tamil Nadu Telecommunication announced that it has obtained the first export order for the cables for Rs. 25 lakhs. This is not much but its importance is that the company has moved into the export field within 3 months of operations. *Seventh,* Tamil Nadu Refineries has commissioned on May 19 its Rs. 12.2 crores fondgraple hexane project. Fond grad is a petroleum solvent used in edible oils, pharmaceuticals, rubber and a wide range of goods. *Eighth, Enfield India* in alliance with Eicher group in Delhi is planning financial restructuring to increase the owned funds of the company in order to increase its manufacturing ability without increasing its indebtedness *Ninth, The Mining activities* of the government report a satisfactory growth in the last 5 years, earning a net surplus of Rs. 10.14 crores in 1990-91. This covers the performance of Tamil Nadu Minerals (TAMIN) and Tamil Nadu Magnesite (TANMAG). TAMIN's return on average investment in 1990-91 was 49.87 per cent. TANMAG in its turn earned a net profit of Rs. 132.34 lakhs for the year. *Tenth,* Poompuhar Shipping, after passing through some difficult year, has started generating surplus in 1989-90 (Rs. 3.25 crores) and 1990-91 Rs. 790 crores. *Eleventh,* in February and March *19 public limited companies and 290 private limited companies* were registered in Tamil Nadu with an aggregate authorised capital of Rs. 4944 lakhs and Rs. 3360 lakhs respectively. *Twelfth,* the government states that it does not rule out the possibility of tapping the private sector for utilising wind energy in a big way. The plan to generate 100 MW of wind energy in the next five

years would involve an investment of Rs. 400 crores for the private sector which is being invited, as the state government does not have access to that kind of money. *Thirteenth, Pandiyan Graphics* has set up a 100 per cent export oriented unit for the production of graphite flakes and powder and has now finalised plans for a joint venture in Sri Lanka with Bogala graphics limited. Finally, the ***tourism industry*** in alliance with the union and state governments has an approved investment of Rs. 50 crores for setting up hotels. More particularly Rs. 28 crores is being invested in 9 hotels in the state in 1989-92.

There were also some negative developments in the industrial scene in May. ***First, in the granite industry area*** the constant changes in the policies in granite leasing and exports by the government is hampering the development of the industry. On the one hand there are increasing export oriented units coming up; and on the other hand the constant changes in export policy is making the importers who are heavily reliant on Indian granite look for other sources. For instance, the recent announcement in the assembly by the chief minister on the canalising of granite exports is a blow to the industry, and further no one in government seems to know what this new policy is about and how it is to be operated. There is also a move by the governments of the US and Canada to impose a high customs duty on the import of polished granite, which is mainly from Tamil Nadu, as the two countries wish to encourage their domestic granite industry. The two countries import Rs. 35 crores of granite from Tamil Nadu and other states whose total export in granite is around Rs. 60 crores. Are the problems of the granite industry, responsible for the Tamil Nadu government not acting on its announcement to canalise granite exports? *Second,* and related to above, *Richmond granite Exports* states that it is setting up a project for the manufacture of granite tiles, slabs, ornamental structures and the value added products, using soft mining technology to ensure high quality and accurate dimensions of the rough block. For its plant it has acquired quarries in the rich granite belts of Athur, Krishnagiri, Madurai and Killa Pulliyar. But this also faces the uncertainties of the state's granite policy, *Third, the Eicher* group, to whom reference was made in the earlier positive trend section, has decided not to allocate the Rs. 35 crore project for the main factory of 50HP tractors in Tamil Nadu because our concessions do not match that of MP and Gujarat. Tamil Nadu's sales tax concessions are limited to 50 per cent of the investment, unlike the other states. Hence the factory has been located in Bhopal. The government's claim about the large consession to attract industry (see Vol XXII p127) are not true. *Fourth, 5 Tamil Nadu Public Sector* undertakings which are shown under the miscellaneous group namely the Tamil Nadu Warehousing Corporation, Overseas Manpower Corporation, Pallavan Transport Consultancy Services, TN Ex Servicemen Corporation and TN State Sports Development Corporation have performed poorly showing a deficit every year for the past 5 years. For 1990-91, there is a slight improvement, resulting in a small surplus of Rs. 26.67 lakhs. Fifth, ***the state trading bodies*** - TN Civil Supplies Corporation and TN State Marketing Corporation - have also performed poorly, showing deficits during the last 5 years - Rs. 19.82 crores in 1987-88, - Rs. 13.88 crores in 1988-89, - Rs. 6.40 crores in 1989-90, -Rs. 13.88 crores in 1990-91 and and - Rs. 14.84 crores in 1991-92. As traders there is no excuse for this poor performance - particularly on the part of the TN Civil Supplies Corporation. The question arises whether these bodies should be partly or wholly be privatised to avoid this poor performance? *Fifth*, it is regrettable that *no public sector undertakings engaged in agriculture and allied activities* have performed well as seen in their net surplus declining from Rs. 581.59 lakhs in 1989-90 to Rs. 54.91 lakhs in 1990-91. The main units are TN Agro Industries, Forest Plantation, Tea plantation, medical plant, farm and herbal medicine and Aratu rubber. The Tea plantation unit has done the worst. Here again the question of letting out some of these units to the private undertakings and operation should be investigated. *Sixth*, *Shaw Wallace* announced that it is suspending its agro chemical manufacturing units from June 1 in the state because of its mounting losses. This is the application of the no pay rule to this company's 350 workers. Once more the plus points outweigh the minus points in the industrial scene but the minus points are correctable and should be.

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IV. Education, Science and Health

Educational reforms

The review by the Ramamurthy committee of the National Policy on Education 1986 (NPE 1986) has been processed for the Central Advisory Board of Education by its committee chaired by Janardhana Reddy, AP chief and education minister. As a result there is agreement on the allocation of higher funds for education at 6 per cent of GDP; extension of operation blackboard, the establishment of educational tribunals (fashioned after administrative tribunals) at the national and state levels to resolve educational conflicts, the preparation of a national examination reform framework to serve as a set of guidelines to the examining bodies, acceptance on an all India basis of the plus two stage as part of the school education, the use of Jawahar Rozgar Yojana to make substantial educational facilities available to the STs and SCs, the commitment of union and state government, political parties and their mass organisations, mass media, educational institutions, teachers, students and voluntary organisations to the mass literacy programme, emphasising of post literacy programmes for the neo literates. The Tamil Nadu Rural Students Talents Search (TRUSTS) for the award of scholarship to talented boys and girls in the rural areas has had a good response as 15000 pupils took the test from 21 districts. The first 50 boys and girls are to be selected for scholarships. A negative note is struck by a report on autonomous bodies tabled in the Lok Sabha of the Comptroller and Auditor General has indicted CBSE for granting affiliation to schools without satisfying the conditions laid down. Out of 155 schools test checked, 96 were granted affiliation in default of byelaws, in 18 cases provisional affiliation was granted without inspection, of 191 schools granted permanent affiliation, the pre affiliation conditions were not met and no action was taken to meet post affiliation conditions in 51 schools. These serious irregularities should be remedied by the governing board. Following the recommendations of NEP in 1986, the UGC has helped established academic staff colleges - one for each state and several in large states. There are 48 such colleges today, whose aim is to motivate the college teachers, to become innovative and creative and introduce them to the tools of educational technologies. An analysis of the feedback by NEPA show that these colleges have helped to develop the teaching skills of the teachers in higher education. These courses for new teachers and refresher courses for existing teachers have started well. There are problems such as releasing the teachers in a teacher short university situation. UGC has now set up a review committee to look into the funding of the colleges and recommend innovative and research persons needed. In view of the poor showing of the young persons in the country to induce sports, the government has initiated a major exercise to introduce public and private sector units to set up Acadamies in various disciplines of sports There is agreement among many public and private sector units to set up national or regional academies. This needs to be pursued.

Distance education

UGC has decided to set up a distance education council as a first step of overhauling the correspondence education programme of the country. The distance education system is not guided by the UCG or the Indira Gandhi Open University which is not the body to undertake the task. The Council to be set up by UGC should ensure that the distance education programme should not be a pale imitation of the regular university courses and acquires an identity of its own. This programme can meet the growing demand for job oriented courses and for this they have to have innovation and devise curricula and learning methods quite different from the traditional bachelor's or master's degree courses in the regular universities. The Madurai Kamaraj university, which after Delhi University, is the oldest university which devised and operated a good correspondence education programme, is now called upon to introduce distance education programmes in the Gulf countries. This will help the lakhs of non resident Indian students in that region, but is also an important occasion to develop the innovative courses that the programme represents.

Adult education

A startling fact reported by the Comptroller and Auditor General in his report to the Lok Sabha, referred to earlier, is that despite the large volume of funds poured into the literacy programmes, the average number of persons made literate this year is declining. He reports that in 1985-90, Rs. 494 crores was spent on adult literacy programmes, the average annual expenditure is increasing from Rs. 49 crores in 1985-88 to Rs. 89 crores in 1988-89, but the average number made literate declined from 49 lakhs per year in 1985-86 to 44 lakhs in 1989-90. The data covers the total number made literate during this period, the results of the rural functional literacy programme, the non payment or delayed payment of honorarium to instructors, the effect of change over from the system of honorarium to regular pay scale, the non use of the supply of teaching/learning materials in 16 states, the funds expanded on post literacy programmes and the setting up of only 11 nilayams against the target of 60 nilayams, the non receipt of certificates of receipt of grants from some voluntary agencies, the assessment of the agencies which showed that of the 406 voluntary agencies audited, 140 needed improvement, 77 were not capable of undertaking literacy programme, and 86 categorised as wholly unsatisfactory, or with doubtful benefits, the falling short of Shramic Vidyapeeths of their vocational training basis, the expenditure of Rs. 7 crores against the target of Rs. 35 crores for the mass programme of functional literacy, the several shortcomings of an implementing agency in Gujarat including doubtful claims of persons it made literate, not returning Rs. 22.96 lakhs of unspent balance, and Rs. 35.10 lakhs of worth of literacy kits remaining unused, and despite all this being given an additional grant of Rs. 136 lakhs and the similar lacks in centres set up, persons made literate and the shortfall in the approved budget by Nehru Yuvak Kendra Sangatha, - all this is a serious indictment of the literacy programme and should be examined by the National Literacy Mission and the Ministry for Drastic Corrective Action.

Technical education

A maritime university is to be set up based on the recommendation of the committee established for this purpose by the government. The university will provide training facilities for seamen, bring under its fold all existing training institutes such as TS Rajendra college, Calcutta, Lal Bahadur Sastri National and Engineering College in Bombay run by the Directorate of Marine Engineering Training, the privately run TS Rahman, and the Marine training Institute of Shipping Corporation of India, the NUSI for ratings to be set up in Goa and the IENS run by Ship managers. The university apart from bringing all these institutes under its supervision, approving courses and conducting examinations will also review man power needs of the shipping industry on a regional basis. In Tamil Nadu, the 1992-93 budget sets forth a Rs. 400 crore project for the development of engineering courses with the twin objects of creating a competitive edge to the colleges and stemming the brain drain to the extent possible. The latter objective is a doubtful one as the state and country will have to develop employment opportunities for top level engineers to prevent them migrating. This programme is an addition to the World Bank aided Rs. 75 crores for improving the infrastructure and teaching of 21 government and 34 aided polytechnics in the state. The government also announced in the Assembly that the services of 6000 part time teachers in the vocational stream of the higher secondary schools are to be regularised. Meanwhile the self financing engineering colleges which were charging a capitation fee of Rs. 60,000 to Rs. 70,000 for an engineering seat are now demanding Rs. 75,000 to Rs. 80,000. This is paid by the students from the well to do families and is to be encouraged as a means of reducing the government subsidy to these colleges for these students. Only there should be some assurance that the capitation fee is expended for the college's infrastructure.

Science

The VIII Plan lays emphasis on the integration of science and technology in the socio-economic sectors and has specified 4 thrust areas of major significance - basic research in front line areas, innovative research in exploitable areas like emphasis on R & D in emerging technologies, diffusion of appropriate

technology and technology support to ancillaries of large units. The integrated science and technology in the socio-economic and rural sectors is to help fulfil the basic needs of water, food, nutrition, health and sanitation, shelter, education, energy, clothing and employment. The plan and its priority and guideline is clean, now the scientists have to implement them. The Central Electro Chemical Research Institute, (CECRI) Karaikudi reports that it has developed 80 technologies which can be accepted for production in the small scale sector, including maintenance free lead and battery for defence application, nickel iron battery and solid polymers electrolyte fuel cell. Parallely the state announces that TIIC will set up a Technology Development Fund (TDP) to enable small scale industrialists to acquire improved knowhow and modernise their unit. TDF is in addition to the venture capital Fund set up by TIIC to promotes new technologies. The union ministry of agriculture will be set up in the state, for which the state government will have to provide 60 acres of land. The initial cost of establishing the Institute is estimated at Rs. 12 lakhs. The existence of the large extent of land without water and the many farmers idling without work and the flocks of sheep and goats grazing on parched land is said to have motivated this project, which if it carries out a lab to land programme effectively will be eminently worthwhile. The Comptroller and Auditor General in his report to Parliament in May has called attention to several scientific departments not implementing their projects and mismanaging their funds For instance the Department of Non Conventional Energy has not shown any results in : the Rs. 4.34 lakhs it paid to a PSU to set up solar dryers in Rae Barailly, the Rs. 134 lakh given to IIT to set up a pilot plant and similar reports about the Zoological Society surveys and collection of specimen which are still not identified, the Rs. 4 crore over funding of a project by the Department of Biotechnology, the DST, DAE, Department of Space, ICMR, NCL and CRRI making grants for project which were not executed. Here various ministries and Department are involved and the Prime Minister's office should examine this report and take corrective action.

Health

On the serious Population problem, the latest (1982) World Population Report, apart from projecting the environmental damage which the exploding population does, spelt out what investment in women-in providing them better health, education and extra domestic employment - can do to lower fertility levels and slow population growth. There is ample empirical evidence which shows clearly the correlation between fertility and women education levels. In fact economic growth and improved quality of life are faster where women's status in education and other development parameters have improved significantly. The case of Kerala vrs UP, Bihar and Rajasthan exemplifies this linkage. The Action Plan of the Indian Population policy addresses itself to these vital issues. A major campaign has been planned under the Indian Population Project V (IPP-D) to create awareness of the ideal age of marriage and ideal age of child birth. This will be a change from the focus to date on promoting the use of contraceptives. Now the attention, apart of marriageable age, will be the ideal birth weight of the baby and expectant mother. A series of workshops were held involving doctors, health workers, sociologists to decide on the above parameters and how to go about spreading the message to the target population. A 7 year programme - the IPP-V with an outlay of Rs. 69.13 crores has been in operation since September 1988 covering Madras, Tambaram, Pallavaram, Tiruvottiyur, Alandur, Ambattur, Madesavaram, Avadi, and Kathivakkam. The ideal age of marriage for women was held to be 21, in the workshop because of the state of bone growth. For men it is 25 years. Any earlier age, especially for women leads to complications. The state government reports that in 2344 health camps in different parts of the state covering 14.54 lakh persons, found 7.30 lakh persons suffering from various diseases, of which some were not even aware of their illness. As many as 22,781 persons have been advised intensive or specialised treatment. Under this scheme, 500 health camps are being held every Friday in various blocks and municipal health centres. In Kallakurichi village in South Arcot district, in one village, 25 children were found to be suffering from rheumatic heart and cardiologists from Salem and Coimbatore have been sent to treat them. In this programme, no additional expenditure is involved for the government or people, use the existing infrastructure, and some 12,600 doctors are now used for the health check up.

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V. Employment and Labour Relations

A Planning Commission Committee has recommended a total support system for educated unemployment. This special Employment Programme for the educated unemployed should be supported by directed lending, particularly from enterprises coming under the tiny sector. Besides this kind of credit, the total system should include training for entrepreneurship development and marketing for self employment ventures. There should be expanded training facilities and reconciliation of educated man power with the involvement of industries. In the medium and long term there is need for reorientation of the educational system so that there is education for employment and employability. These consideration applied particularly to tribals who traditionally depended and rated as poor. There is need also for environmental training and education of professionals so that economic growth and development are environment friendly. The most relevant employment programme is SEEUY, in which a recent evaluation states that the success rate in self employment is 60 per cent. The scheme is to be revised to cover any areas with population upto 1 lakh and the family income ceiling should be raised from Rs. 10,000 to Rs. 24,000 per annum. Entrepreneurs will be required to bring a margin of 10 per cent of the project cost and the subsidy reduced from 25 to 15 per cent. The scheme should aim at providing self employment to about 2.5 lakh unemployed educated youth annually. With an expected average subsidy of Rs. 6000 and credit of Rs. 30,000 per beneficiary, the annual credit required will be Rs. 150 crores and subsidy Rs. 750 crores. The Urban Development Ministry has proposed a

scheme for educated unemployed of employment generation in urban localities (SEEGUL), appliable to towns with a population above 1 lakh by promoting needed enterprises in manufacturing, services and business. SEEGUL will provide subsidy of 15 per cent, entrepreneur will contribute 10 per cent and loan from bank 75 per cent of project and will aim at setting up 2.08 lakh mixed enterprises per annum at a cost of Rs. 210 crores per year and will cover 10.40 lakh beneficiaries at a cost of Rs. 1050 crores during the VIII Plan to be shared between the union and the states on a 60:40 basis. The report points out that salaried jobs in the public and private sectors are not expanding and the structural adjustment programme under way will lead to displacement of workers from both the organised sector and related unorganised sectors, making these self employment schemes, really urgent. The state government has instructed officers in the labour department to give serious consideration and support to proposals made by managers for linking wages with productivity. Instructions to this effect have been issued in tune with the industrial policy announcement made in the State Assembly summarised in the last issue of the Bulletin.

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VI. Other Items

CABE

There was a meeting of the Central Advisory Board of Education in early May to review and approve the report of the committee on the Ramamurthy Committee review. The meeting after half a day plenary broke up into six groups on elementary education, secondary education and vocation, adult education, women's education and education in the north east region and on the afternoon of the second day approved reports of the groups. The main conclusion of CABE are set forth in the previous sector on educational reforms.

Institute of National Harmony

There was a meeting of the executive committee of the Institute of National Harmony. It reviewed that the effect of the new industrial policy on labour management relations and noted that the government is not clear on this aspect of the policy. While the Finance Ministry keeps talking about the quit policy, the Prime Minister and the Minister of Labour deny that the government has an exit policy and say that this is an invention of the media. The kindest explanation is that the government is not clear on this delicate aspect of the new industrial policy. The seminar which was run on this question in late April reflected the confusion. The committee decided that the Institute will concentrate on training managers and trade union leaders on the means and techniques of working together and not organise any further seminars.

IIC

There were 3 events in May in the India International Centre. There was a meeting of the Standing Finance Committee which reviewed a proposal for increasing admission fees of members and decided to recommend to the executive committee and Board of trustees a 50 per cent increase in the admission fee of all categories. This would be a contribution to the raising depreciation cost of the permanent fixtures of the centre. There was the monthly panel discussion on the globalisation of the economy when there were clear presentations of the need for it from the point of view of the economy, the dangers involved, the cautious views of the business world and the problems raised by the appropriation of genes, particularly of rare plants and animals by the developed world. This was followed the next day by a seminar on the Balance of Payment problems when the issues facing the country both in the trade and invisibles sector were brought out and the importance of pushing agricultural and agri-processed exports was brought out.

SRC and TNBCE

There was the usual bimonthly meeting of the Governing Body of the State Resource Centre when the work falling on the centres as a result of the spreading total literacy programme in 7 districts and the new programme in 7 further districts were reviewed. The Assistant Secretary was appointed as Secretary of the Governing Body and Mrs. Renuka Iswariah was appointed as Assistant Secretary. There was also a meeting of the Tamil Nadu Board of Continuing Education, when these two appointments were endorsed as they are also the Secretary and Assistant Secretary of the Board. The plan for the annual conference were reviewed and work on it proposed on certain lines.

RDI

As forecast in the last issue, the situation in the Board of Directors of RDI has become serious. The differences have not been resolved and has led one group to approach first the High Court and next the Company Law Board which had a first meeting on the issues at the end of May and has posted for the continuation of the hearing at the end of July. In the meanwhile there was a meeting of the Extraordinary General Assembly which voted on the appointment of 3 more directors to the Board. The Company Law Board has frozen any follow up action on it as of now.

June Development Seminar

The paper for the June seminar "Strategies for sustainable agriculture and irrigation in Tamil Nadu", by R.K. Sivanappan together with a summary of discussion of the paper at the seminar appears as the first article.

Second Article

A note on 'Challenges Facing Industry' appears as the second article.

Book Review

The review by Ms. Padmini Swaminathan of the book, "Forms of Production and Women's Labour: Gender Aspects of Industrialisation in India and Mexico", appears in the book review section.

M I D S News

Dr. Paul P. Appasamy gave a lecture on

1) "Urbanisation and Environment" at a workshop on water quality monitoring for high school students and teachers, organised by the Waterways Monitoring Programme, Centre for Environment Education (Ahmedabad) and Rotary at Asan School, Madras on 26th June, 1992.

2) 'Environmental Economics" at a training programme on Environmental Issues for NGOs of Southern States at the CPR Environmental Education Centre, Madras on July 3, 1992.

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Dr. Leslie Arnijo, Department of Political Science, North Eastern University, Boston Massachusetts led a Lecture Discussion on "Politics and Financial Reforms in Brazil : Lessons for India?" on 7th July, 1992.

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June Development Seminar

Strategies For Sustainable Agriculture and Irrigation in Tamil Nadu

by

Dr. R. K. Sivanappan
Chairman, Centre for Agriculture, Rural Development and Environmental Studies, Coimbatore

Introduction

Tamil Nadu is facing many challenges in the recent years in the development and sustainability in Agriculture. It is going to be still more in the coming years in view of the population growth. The small and marginal farmers are not able to make their both ends meet. Those who depend only on agriculture for their livelihood, are suffering in spite of large scale development in other areas after independence. Even drinking water is not available in many villages during summer in every year or in the alternate years and need not to speak of their other daily needs. Lands once fertile and productive, have become barren due either to non availability of water or failure of monsoon. Water is an essential component of sustainable agricultural development. Without appropriate and reliable water control and managements, sustainable agricultural development is simply not possible. Conservation and rational development of water, land and associated natural resources are essential ingredients for sustainable development.

2. Land and Water Resources

The average annual rainfall in Tamil Nadu is only about 948mm compared to India's average of 1250mm. The population of Tamil Nadu is about 7%, the area is about 4% and the water availability is only 3%. Compared to India's population, land and water resources which indicates that only 50% of the national average is available for Tamil Nadu. The Table 1 below gives available land and water for some of the states and the country.

Table 1 : LAND AND WATER AVAILABILITY PER PERSON IN INDIA

S. No.	Country/State	Net Sown area	Total area in Ha. utilisable water mHm Ground water+Surface water	Population in million (59)	Land availability per/ person in Ha.	Water availability per person/year in m3
1.	India	150	100	844	0.18	1185
2.	Tamil Nadu	5.6 or 6.0	4.0	5.56	0.10	719
3.	Andhra Pradesh	12·00	11.94	66.3	0.18	1800
4.	Karnataka	10.7	4.08	44.8	0.24	911

Source : Season and Crop Report, various issues

The rainfall is erratic especially in the last 5 or 6 years and hence the availability of the water is much reduced. The land area is being degraded and it is increasing, though Tamil Nadu cannot afford to leave an inch of land as fallow/waste/degraded. The unutilised/unproductive land area in Tamil Nadu is given in Table 2.

Table 2 : DEGRADED AND FALLOW LAND (1950-1987) IN LAKHS Ha

Category	1950's	1960's	1970's	1980's	1987
Barren/uncultivated	9.73	8.85	7.05	5.74	5.53
Cultivable waste	8.70	6.60	4.15	3.20	2.95
Current fallow	11.05	9.69	12.02	17.35	14.10
Other fallow	6.60	6.12	5.31	5 85	8.35
Total	36.08	31.26	28.53	32.14	31.93

Source · Season and Crop Report, various issues

The total geographical area is 13 mHa of which the average net area sown in the last 20 years varies from 5 40 to 6.30 mHa and the gross sown area is about 6.80mHa-750mHa. The net and gross irrigated area remains more or less the same i.e. varying from 2.40mHa-2.70 mHa and 3.22mHa-3.50 mHa respectively and the intensity of irrigation is about 125-130%. The area of cultivation and irrigation is increasing during good rain years but the same is reduced when the rainfall is less than normal. The agricultural production has also not increased much in these years. Dr. Chopra Director General, I.C.A.R. has pointed out that the production in India as well as in Tamil Nadu is more or less the same in the last 4 or 5 years, where as the population is increasing at a high rate. The demand for water, land and production are increasing whereas the land and water resources are constant. Therefore the problem is how to make water a sustainable one by increasing production. To increase the production, irrigation facilities are to be increased. The National Commission on Agriculture and Irrigation have indicated that the irrigation potential of Tamil Nadu is only about 4mHa even if all the water resources are harnessed. But for sustainability and growing population, Tamil Nadu should have more than 5mHa under irrigation. Sustained-production on both irrigated and rainfed lands requires optimal use of the physical environment in each soil, crop, climate and ecosystem.

For sustainable agriculture and irrigation, land should be maintained without involving degradation and water should be available either from rain/surface/ground water.

3. Problems

There is a general feeling that the rainfall is meagre and hence there is scarcity of water. But according to the hydrological cycle and the Department of Meteriology, Government of India, the rainfall has not reduced based on the 100 years analysis of data from about 100 stations. However it is a fact that the water scarcity is increasing and water problem is noticed everywhere in Tamil Nadu.

The ground water table is depleting fastly in all the districts. In Coimbatore, Periyar, Salem, Madurai, and in parts of Chidambaranar Districts many farmers have abandoned their open wells. In Coimbatore, Salem and Periyar Districts deep bore wells to a depth of 300"-600" (even upto 1000" in Rasipuram Taluk) are being constructed to enhance quantity of water supply. The farmers are in a fix since they have to rely on their wells as the discharge from their wells are very meagre and these wells may also fail in a short period. Though the number of wells are increasing in their working the operational areas are more or less the same.

However, according to the Directorate of Ground Water, Tamil Nadu State (1990), there are more than 16 lakhs wells in the state and the total water extraction is only about 50% at present and another 12 lakh wells can be constructed in the State. The districtwise ground water details are given in Table 3.

Table 3 : DISTRICTWISE GROUND WATER POTENTIAL

S.No.	District	Utilisable ground water recharge 80%	Net ground water development mcm	Balance available for development mcm	Stage of ground water development as on 1984-85	Stage of ground water development at 1990	No. of wells feasible at 100% of ground water development
1.	Chengai/MGR	2096	1116	980	53	59	82,675
2.	North Arcot and Tirunelveli	2647	1677	970	53	70	80,873
3.	South Arcot	4377	1998	2379	46	50	2,44,654
4.	Dharmapuri	1190	563	726	47	52	52,272
5.	Salem	1502	1033	469	69	76	38,869
6.	Coimbatore	952	729	223	72	84	16,962
7.	Periyar	1160	782	378	67	74	32,868
8.	Thanjavur	1802	599	1203	33	36	1,03,051
9.	Trichy	2388	1066	1322	45	49	1,10,395
10.	Pudukottai	880	251	629	29	32	52,428
11.	Madurai	2040	1026	1024	50	55	85,327
12.	Ramnad/ Pasumpon Kamarajar	2669	452	2217	17	17	1,84,603
13.	Tirunelveli/ Chidambaranar	1584	692	892	44	48	74,445
14.	Kanyakumari	298	13	285	4	5	23,774
	State	25636	11987	13649	47	51	11,87,101

Source : Season and Crop Report, various issues

These two hypothesis are contradictory. However it is necessary to locate exactly where the over exploitation and under exploitation are prevailing.

There are about 39,000 irrigation tanks in Tamil Nadu. About 1/3 of the irrigated area is covered by these tanks. Due to siltation, encroachment and non maintenance of the supply channel to many of these system tanks, the irrigated area has been reduced to about 27%.

In the case of Canal irrigation, major irrigation projects like Cauvery, PAP, Vaigai, Periyar depends on South West Monsoon and neighbouring states. The problem of getting water from Cauvery, PAP, Periyar is very well known. The Cauvery problem is with the tribunal. In PAP as per the agreement, though Tamil Nadu is to get a total quantity of 30 TMC, it has not got more than 18 or 19 TMC. Similarly, the Government of Tamil Nadu is not able to store to the full depth in the Periyar dam since the Government of Kerala is objecting for various reasons.

In the rainfed areas, as per the rainfall pattern (Table 4), it is possible to raise 2 rainfed crops in a year at least about 30 - 40% of the above, but the intensity of cultivation is only about 117%.

In the land use pattern, about 2.7 mHa is under paddy crop. Due to monsoon failure and reduced availability of water the area under Paddy has been reduced in the last 2/3 years. Though the number of wells are being constructed every year' the area under well irrigation is more or less the same. The average irrigated area from each well is about 2 acres. The crop and cropping pattern of these lands have not been changed inspite of the scarcity of water and the demand of water for other uses.

Table 4 : RAINFALL (in mm) DISTRIBUTION IN THE DISTRICTS OF TAMIL NADU IN SOUTH WEST AND NORTH EAST MONSOONS

S. No,	District	Monsoon Rainfall	
		South West	North East
1.	Madras	363.7	795.3
2.	Chingleput	397.7	691.0
3.	South Arcot	391.8	627.8
4.	North Arcot/Tiruvannamalai	440.1	385.5
5.	Salem	354.9	303.1
6.	Dharmapuri	366.6	290.9
7.	Coimbatore	179.2	438.7
8.	Periyar	212.9	316.3
9.	Tiruchirapalli	273.3	419.2
10.	Pudukottai	351.0	394.1
11.	Thanjavur	288.7	680.6
12.	Madurai	242.3	401.9
13.	Dindigul	221.7	418.2
14.	Ramanathapuram	134.6	498.1
15.	Kamarajar	162.2	432.1
16.	Pasumpon Thevar Tirumayam	330.5	394.9
17.	Tirunelveli	109.5	485.8
18.	Chidambaranar		
19.	Nilgiris	1061.3	513.6
20.	Kanyakumari	546.2	564.0
	Tamil Nadu	307.3	449.7

Source : Season and Crop Report, Govt. of Tamil Nadu

4. Irrigation Methods

Irrigation is as old as civilization; but it is the science of survival. The method adopted even now is the same old method adopted by the forefathers. Though various changes in technology have been found out and practised in other parts of the world, in India/Tamil Nadu, these advanced methods are not taken up in large scale. The area of irrigation is more than 80-mHa and it will reach about 100 mHa in the year 2000 A.D. The area under sprinkler and drip irrigation are only 7 lakh ha. and 16,000 ha. respectively.

5. Strategies for Sustainable Agriculture and irrigation

In order to maintain sustainable agriculture and irrigation, the following methods may be followed:

i) Diversification of crop and cropping pattern

The agricultural crop/cropping pattern practised in Canal, Tanks and well irrigated areas as well as in the dry land areas are the same one followed by our forefathers. Further the acerage yield obtained for many crops have also not increased much in the last 516 years. The average yield of paddy is still about 3.5 to 4 T/Ha though more than 908Ha of the paddy land is irrigated. The average yield even in the developing countries like Egypt, Korea are much more ie. about 8T/Ha. Farmers in some areas ie. Tamil Nadu have produced even 15 T/Ha. Therefore there is a need to reduce the paddy area, by producing the required rice from about 1.8 mHa instead of 2.7 mHa. This will not only reduce the water demand but also help in going for other crops and increasing production. Even now in water scarcity areas, high water consumption crops like paddy, sugarcane, banana are grown. This tendency should be curbed in order to save water and increase the revenue from lands with the available water.

ii) More than 3.00 mHa (75 lakh acres) of land is not being utilised which is unproductive. These areas can be profitably used by taking up appropriate land development, soil conservation measures and introducing agro forestry/ farm forestry. The dry land tract has not been fully exploited. Even the researchers are not paying the needed attention to take up research for dry lands. By analysing the rain fall pattern and suggesting suitable sowing dates and variety of crops, it is possible to take up 2 rainfed crops in more than 30-40% of the dry land area as compared to 17% at present.

Water is the main input needed to grow agricultural crops and also for the sustainable agriculture. How to get it and use it?

a) Rain/Rainfall analysis

Rain is the only source from which water is obtained whether it is from canal, tank or well irrigation. The rainfall pattern is changing due to various other developments in the world, though the total rainfall may be the same. Therefore it is time to analyse the pattern, quantity and distribution in all the regions. This will help identifying the areas/pockets, how the rainfall is distributed and based on this, development plan can be formulated and implemented.

b) Canal and tank irrigation

Though we talk much about the shortage of water, large quantity of water is wasted in canal and tank irrigated areas. A study conducted at PAP has indicated that the gap between the first and last transplantation is about 50 days when the water is let only for 140 days in the canals. This shows that water released in the beginning was not fully utilised. Not only that the farmers influence and get water for atleast a month *more* in order to irrigate the late transplanted crops. To prevent the wastage of water, the following methods can be followed.

i) Insist the farmer to complete the transplanting within 15-20 days (Nile delta)

ii) Provide number of wells in the command area so that seeped or lost water can be pumped by the farmers and used simultaneously.

Though it is often mentioned that conjunctive use of water is necessary, but in practice, this is not followed. When water in available in the canal, farmers never use ground water for irrigation. This can be done without any problem since the farmers are not paying the electricity.

The other important water management practices are:

i) Follow recommended 5 cm depth of water for paddy irrigation- water saving method of irrigation.

ii) Introduce sprinkler irrigation for all closely spaced crops except rice in the command area.

The experiment results have indicated that by following the water saving method for paddy about 30-40% of water can be saved and the yield can be substantially increased. By introducing sprinkler method. It is possible to increase the area by 100%. It is being followed in the advanced countries like USA, France etc. It is gratifying to note that the Central Board of Irrigation and Power (CBIP) is conducting research in many major command areas to introduce this method in the canal command areas in the country. This can be introduced to start with at LBP and PAP areas at Government cost.

c) Well irrigated areas

Ground water position is very precarious. The farmers are abandoning their open wells, since it is completely dried up and it is too deep to deepen it further. For their existence and livelihood, they borrow money and go for deep bore wells. There is no one to advise them about the prospects and the sustainability. The Directorate of Ground Water has reported that the utilisation of ground water is only 50% and another 12 lakhs wells can be constructed in Tamil Nadu. Detailed study must be done to give proper advice to the farmer especially when they go for deeper bore wells more than 500. There is nothing wrong in allowing the depletion to a reasonable level, but once in 3 or 4 years atleast the ground water table should be more or less maintained at the reasonable level for sustainable agriculture.

The crop and cropping pattern in the water scarcity areas where ground water is used for raising crops should be modified/changed. The method of irrigation should also be changed in order to bring more area under irrigation from the same water. More commercial crops like fruits, vegetables, flower etc. can be introduced by adopting drip irrigation methods. The drip irrigation has many advantages including water saving. The area under drip irrigation in Tamil Nadu is only about 5000-6000 acres and this has to be increased substantially. It is suggested that the method can be introduced at least for about 1% of the irrigated area (i.e. about one lakh acres in another 8-10 years. The cost of the system and B C. ratio for various crops are given in Tables 5 and 6. It indicates that it is economical and viable though the initial cost is little more. It is gratifying to note that Government of Tamil Nadu is encouraging this method by giving subsidy of 50% to the farmers from 1991.

d) Tank irrigation

In tank irrigation, paddy crop is grown. In some of the tank command areas, there are wells to use the ground water and in many tanks there are no wells. It is advisable to have wells in order to utilise the water efficiently. There is also a great need in diversifying the cropping system. Action may be taken in that direction in the future. Sprinkler irrigation can be introduced for closely spaced crops other than rice and drip irrigation for commercial and row crops.

The Government is spending about Rs. 25,000/ha. through EEC funds for modernisation of tank irrigation. These works can be finalised in consultation with the farmers. The routine type of repair works and other farm works need not be done in all cases. Work on conjunctive use of water can be taken up to solve both water and drainage problem, if need be construction of more wells in the command areas could also be explored.

Currently, the overall performance of many irrigation projects is much less than expected. Inadequate operation and maintenance and inefficient management of an increasingly scarce water resource contribute to many socio-economic and environmental problems. It is not unusual to find that 60% of water diverted for irrigation is not made available for crop use. In modern high input system of irrigation canals (other than paddy) yields of 1.5 Kg/m^3 and paddy yields 0.3 Kg/m^3 of water consumed can be expected. The cost of providing the water is high and when more than half is not used by crops, the cost per unit production may be doubled.

e) Rainfed area

There is a great potential to increase the production from the dry lands and as well as from the degraded and waste/fallow lands. The entire area may be divided into appropriate/watershed areas and then suitable soil and water conservation/water harvesting measures can be implemented. In situ, soil and moisture conservation techniques can be adopted to increase the water availability in these tracts. Further to increase production, agro forestry/farm forestry can be implemented in the dry lands and degraded lands. Though the ground water position is not good, water is available at reasonable depths (40' - 60'), in the southern and northern district to provide protective irrigation for tree crops including fruit trees. Watering may be given for one or 2 summer after planting the trees.

Table 5 : Estimated Cost of Drip/Biwall Irrigation Systems for Various Crops with Different Spacings

S.No.	Kind of crop	Spacing m X m	Estimated Cost in Rupees			
			for 0.40 ha (1 acre)	for 1.20 ha (3 acres)	for 2.00 ha (5 acres)	Average cost per acre or 0.4 ha
1.	Coconut/ Mango	7.62 x 7.62 (25' x 25')	4,475	11,930	18,550	3,880
2.	Banana	1.52 x 1.52 (5' x 5')	113,670	38,740	62,835	12,805
3.	Grapes/Ber and pome-granate	3.04 x 3.04 (10' x 10')	7,700	20,030	31,880	6,625
	Grapes	2.44 x 2.44 (8' x '8)	9,340	27,070	45,500	9,100
4.	Orange and Citrus specices	4.57 x 4.57 (15' x 15')	8,040	19,980	31,200	6,580
5.	Papaya	2.13 x 2.13 (7' x 7')	9,500	27,840	46,700	9,340
6.	Sugarcane/ Vegetables	Between Biwall 1.83m ('6)	12,750	34,200	53,750	11,190

N.B. : Water source is assumed to be close to the system. Estimated cost wise calculations based on Field Data collected from farmers and suppliers.

Source : Sivanappan and Associates, Constraints and Protentials in popularising drip and Sprinkler Irrigation Systems, 1990.

Table 6 : Benefit — Cost Ratio for Various Crops by Using Drip Irrigation System

S.No.	Kind of crop	Spacing in m X m	Cost of the System for 0.4 Ha in Rs.	Benefit-Cost Ratio	
				Excluding water saving	Including water saving
1.	Coconut	7.62 x 7.62 (25' x 25')	4,475	1.41	5.14
2. i)	Grapes	3.04 x 3.04 (10' x 10')	7,700	13.35	32.32
ii)	Grapes	2.24 x 2.44	9,340	11.50	27.08
3.	Banana	1.52 x 1.52 (5' x 5')	13,670	1.52	3.02
4.	Orange	4.57 x 4.57 (15' x 15')	8,040	2.60	11.05
5.	Acid lime/ Citrus sp.	4.57 x 4.57 (15' x 15')	8,040	1.76	6.01
6.	Pomegranate	3.04 x 3.04 (10' x 10')	7,700	1.31	4.04
7.	Mango	7.62 x 7.62 (25' x 25')	4,475	1.35	8 02
8.	Papaya	2.13 x 2.13 (25' x 25')	9,500	1.54	4.01
9.	Sugarcane	Between Biwall 1.83(6')	12,750	1.31	2.78
10.	Vegetables	Between Biwall 1.83(6')	12,750	1.35	3.09

Source : Sivanappan and Associates, Constraints and Potentials in Popularising Drip and Sprinkler Irrigation Systems, 1990.

In rainfed area, the primary importance are water conservation measures such as fallow management, control of runoff water and harvesting. Integrated with these practices are selection of High Yielding Variety, drought tolerant varieties, optimal planting datas to maximise the probability of rainfall during critical periods of crop growth. Whenever, there is a problem in getting good agricultural crop, tree crops. including fruit trees can be introduced. Protective irrigation can be given for these crops by providing bore wells with hand pumps. These are numerous examples in this state and elsewhere in this direction.

f) Reuse of waste water

Large quantity of waste water/sewage water from urban/semi urban areas are faced with the problems of disposal. A city with a population of 5 lakh with a per capita water consumption of 125-150 litres per day and a return flow of 85-90% will produce about 70,000 m^3 of waste water per day. It would be possible to irrigate an area of 3000 Ha from the treated, nutrient rich water. It would be possible to grow safely some 3,00,000 tons of vegetables per year with the recycled effluent, without the need to add any chemical fertiliser to the soil. In Israel with 65% of the effluent recycled in 1991, there was a net increase in water available to agriculture of some 20%.

In the last 40 years; the total agricultural water requirement has increased by about 4 or 5 times and the percentage of water used for agricultural purposes has increased to 90%. However the following trend is expected in the next 10-20 years

a) Total amount of water used for agriculture purpose will continue to increase steadily.

b) The percentage share of water used for agriculture will continue to decline further.

(90...%— 75% in another 10-15 years)

However if the present programme to alleviate poverty and to achieve food se'f sufficiency are to succeed, agricultural water management has to become a priority item. Regrettably, there are no signs of this happening. There is an urgent need to have agricultural water management extension officers in each block/taluk, atleast to start with in water scarcity and excess regions, as in the case of advanced countries where water is a constraint for agriculture.

With a view to minimising the effect of water as a fundamental constraint in relation to water resources, for the development of agriculture it seems paramount to apply a strategy comprising several complementary measures. This strategy is based on the following measures :

Improving the evaluation of subterranean and surface water resources, by analysing their operation and dynamic behaviour;

Establishment of legislation (especially for ground water regulation) concerning the management of water resources that can be applied by involving the beneficiaries;

Establishing a system of follow up, estimation and evaluation of data, enabling planners to envisage solution based on data close to reality;

Promoting the replenishment of aquifers and intensifying work on soil and water conservation to reducing the soil loss and sediment transport;

Recycling treated waste water for irrigation and industrial use;

Consider water as an economic good, rather than a free commodity to avoid wastage;

Enhance the efficiency of water use and reduce losses and wastage;

Raising the value placed on water in irrigation by selecting the most remunerative crops and minimising consumption;

Improving the performance of public services responsible for managing water resources; and

Management of the water at the lowest appropriate level.

6. Conclusion

Water is a essential factor for sustainable agriculture and irrigation in the state. This factor is dependent on a natural research that is irregular, limited, limiting and degradable. Owing to these characteristics, there is a risk of the development system being jeopardised and hence an appropriate strategy for the short and long term, designed to assure the protection of management of this precious resources is therefore essential.

Summary of Discussion

The author at the outset mentioned the challenges facing Tamil Nadu Agriculture in the light of the acute water problem as a sequel to failure of monsoon. For sustainable development of agriculture, appropriate water control and management systems linked to land and natural resources are essential ingredients.

The average annual rainfall in Tamil Nadu vis-a-vis the national average is low. When compared to the population of India, the share of Tamil Nadu is 7%. While in the case of land area it is 4% and water availability is only 3%. The erratic supply of rainfall was one of the causes for concern but more alarming was the proportionate increase in the land under categories of fallow/waste/degraded. While the net and gross irrigated areas remain stagnant, the intensity of irrigation depends solely on the monsoons. Concern has been expressed that food production should keep pace with population growth. Increase in irrigation facilities alone may not yield the desired results if it is not properly matched with optimal use of physical environment, soil, crop, climate and eco-systems.

An alarming feature of the water problem is also the rapid depletion of ground water table in major districts of Tamil Nadu. Even though there were over 39,000 irrigation tanks in Tamil Nadu irrigating 1/3 of the area, the problems of siltation, encroachment and non-maintenance of supply channels to many of these system tanks has reduced the irrigated area considerably.

There is an urgent need for diversification of crops and cropping patterns as the average yield of paddy is also stagnant when compared to other developing countries like Egypt and Korea. Appropriate land development and soil conservation measures can go a long way to profitably take up agro forestry/farm forestry.

The need to introduce conjunctive use of water and introduction of sprinkler irrigation to increase the area can also save water, and yield can be increased substantially. While well irrigation and deeper bore wells are dug, it must also be ensured that over a period of time the ground water table level is more or less maintained at reasonable levels for sustainable agriculture.

There is also the urgent need to change the cropping pattern in water scarcity areas and more commercial crops can be introduced by drip irrigation methods. Diversification of cropping pattern and sprinkler irrigation for closely spaced crops can be useful and productive. The inadequate operation and maintenance and inefficient management of the increasingly scarce water resources contributes to many socio-economic and environmental problems.

In rainfed areas too apart from water and conservation measures, selection of HYV varieties is also necessary.

In the discussions that followed a question was raised on the cultivation of cereal crops in Chingleput district vis-a-vis crops like oil seeds. It was also suggested that paddy cultivation be restricted and to go in for other crops which are less water intensive. Another question pertained to the effective use of water over a longer period of time if there is to be a major shift to Horticulture in the case of Tamil Nadu. The author mentioned that the trend towards commercial crop production was increasing and farmers earned more from cultivation by using drip irrigation.

Another question related to the mismatch between the use of fertilizers and cropping pattern and management of water. The author mentioned about the escalating costs of raw materials and problem of inter-linking of rivers of North and South. There was scope to bring barren land for cultivation and scope for extension work existed as the National Waste Lands Authority were also involved in such activities.

On the question of the South West vs North East monsoon a participant referred to the high degree of variation of the latter due to cyclonic storms and the difficulty in planning caused by it. The author mentioned that the Arupukottai Research station has done weekly prediction before monsoon sowing. The rain gauges are very important to measure the intensity of rainfall and for agricultural practices.

On the question of recharge of water at 500 feet and its feasibility, the author was of the view that even at 135 ft the water table is not remunerative to Coimbatore farmers and it is necessary to go in for wells at a greater depth. On the sustainable nature of fertilizers it was pointed out that pollution from fertilizers and pesticides continue to remain a major problem.

V. JACOB JOHN

Challenges Facing Industry*

The challenges facing industry are of short term and medium term nature.

Short Term

The immediate challenge facing industry is the cash crunch facing all of them, as a result of RBI directives to the banks to limit the credit extended to industrialists. The banks are turning down credit/loan requests from all industrialists - large, medium and even SSI. This is so severe that it not only reduces their working capital fund, but for some causes anxiety as to how they could meet their monthly salary bill. It is now necessary for this freezing of credit to industry to be selectively and gradually lifted - starting with SSIs and the large and medium ones who have modernised and restructured their enterprises.

A second short term problem facing industry are the curbs placed on imports including capital stock and components, which they can import only against REP/Exim scrips. On this, they will have no relief atleast till April 1992 and even after, it is the level of the country's foreign exchange resources which will decide the lifting of the curbs. Some of the sensitive industries - like engineering, chemicals, automobiles, electronics will have to live with this denial of their imports and look for alternative in the form of foreign equity or restructured domestic equivalent.

The third problem facing industry spills over into the medium term also. Immediately it wants to know what the new industrial policy announced on July 24 really amounts to. What does delicensed being replaced by registrations mean for new enterprises and expansions? What are the small print that needs to be made known and studied. There are a number of important areas like power, steel and telecommunications where private sector projects are waiting to be readied now. What does automatic approval mean? A number of projects have been awaiting approval for 1, 2. and 3 years. Can the entrepreneur now raise the necessary capital markets - as the bank credit continues to be restricted and proceed with the land purchased, equipment indenting and hiring the work force so that the project can go onstream next year?

There are many other short term problems facing industry, including the opening up of the financial sector which it urgently needs. Does the delicensing

*An article by Dr. Malcolm S. Adiseshiah for the Souvenior - The Society of Auditors, Madras, August 9, 1991.

and liberalisation apply also to the financial sector?

Medium Term

The medium term challenges are decisive and will mark the future of the industry.

The first is the problem of improving the quality of their product. This calls for modernisation and technological upgradation. If the technology is not available within the country, it has to be imported. A support and adjunct to this objective of improving the quality of our products is to force industry to face competition. That is what the various deregulations should lead-to an increased domestic competition. Because competition between firms has been restricted, qualitatively shoddy products are marketed, earning large profits. Now with the opening up of the industry and the market, there will be an impetus to improve the quality of the product. Further with the loosening of the FERA regulations, not only will foreign collaboration as a means of importing technology and improving the quality of the produce become possible, there will also be investment and operation by foreign firms, including mechanisms which will add to the domestic competition, and also gradually enable Indian products to compete qualitatively in the international market.

A second challenge facing industry is that while entry into industry has been opened up, not requiring any license except for 18 industrial areas, enabling the establishment of new units, expansion of existing enterprises and the entry of fresh entrepreneurs, there is no parallel exit policy that would make possible not only the closing down or sale of loss making, unviable units, and those using technology which is completety out of date, but also of cutting back on the overstaffing and over employment which is a characteristic of all public sector enterprises, and increasingly of private sector enterprises. This latter is not fully recognised because all attention has been concentrated on cutting the fat in the public sector enterprises. But in the private sector, enterprises which are not meeting the demands of the market, or which are operating on an uneconomic scale which cannot be corrected because it involves moving firms to a more spacious location which is resisted by labour, or operating on outdated and misleading marketing and feasible studies, are not allowed to be closed down. The resistence here is by trade unions backed by the political parties which have founded them or to which they are affiliated. It is hoped that the National Renewal Fund proposed in the Industrial Policy and funded in the budget for 1991-92 will give trade unions an assurance that workers rendered unemployed will be provided with a social security safety net and be retrained and redeployed. In this matter, it is interesting that industry has suggested that it could contribute Rs. 500 crores to Rs. 1000 crores to the Fund. This should make possible the exist policy which industry needs and with which it can become viable.

A third special challenge facing some public sector industries-like the public sector steel plants, the Heavy Engineering Corporation, the chemicals factories, the fertilisers firms and coal mines etc. which have been established with the help of Soviet technology in the 50s in some cases the technology used and in use is the free world war technology -which because of this totally obsolescent technology and which has been superceded by several generations, face no alternative but to be either closed down, or so completely restructured that it will be like starting a new plant with a new labour force trained in the latest technology. Comparisons are made of the low productivity and output of the Indian steel industry and South Korea's steel industry, the serious lags in heavy machinery products of HEC compared to those from Japan, the low output per man hour of Indian coal mines compared to Australian coal mines and so on. The clue to all this is that with the technology being used by the Indian firms, both in productivity and output per unit of capital or labour, is and will be always abysmally low and so the way forward is to close them down and completely renovate and restructure the units.

A fourth challenge facing industry is on the export front. Here there are areas where there is a comparative advantage with Indian firms dealing for example with leather, tea, food/fruit processing, cotton, man made fibres etc. which can be further sharpened and improved by a well planned strategy of building foreign alliances. This could be aimed at bringing the product to the qualitative international level for the domestic market first, spilling over to the export market. The strategy of foreign alliance could be as at present to serve the domestic market or it could be through the various export packages like the EOUs, the 100 per cent Export Zones or through understanding and arrangement with foreign collaborations to split the international market.

Finally, there are many issues facing industry which are just beginning to appear now, such as how to move from the capital cum energy intensive cum import intensive consumers durables production meeting the demands of the well to do sectors reaching down to the lower middle class which NCAER estimate at 30 crores of persons to producing the wage goods needed by the largest group who belong to the below Rs. 12,500 per annum households; there is also the question of cutting costs which is probably one of our foremost priorities and closely related to our level of competitiveness; there is the problem of mergers and acquisitions which the amendment to the MRTP act and the removal of the ceilings or holdings or market share will encourage and hasten. But here again while the present fragmentation of industrial capacities need rectification and the firms to be of a size which will enable it to both enjoy economies of scale and face global competition, the corporations must also shed a lot of fat, and as one industrialist puts it "the corporation will have to get leaner and meaner". Finally there is the problem of unaccounted money which is not only generated solely by the industrial sector; there is also the problem of industry holding large funds, increasingly unaccounted funds, ahead. How can this aspect of the flight of capital be stopped and the money held abroad be brought back to the country? On that depends the fiscal viability of the economy.

Book Review

I. S. A. Baud : Forms of Production and Women's Labour : Gender Aspects of Industrialisation in India and Mexico.

Sage Publications, (India), 1992, pp 321, Rs. 295

The book under question is a meticulously researched and well organized study dealing with differences in women's employment in large-scale, small-scale and artisanal forms of production and the implications these variations hold for women's power within the family-based household. Using the cotton textile industry and shrimp processing industry (for India), and the shoe industry (for Mexico) as case studies, the author has analysed her findings under the following heads :

(a) Categories of labour and production units,

(b) Women's access to employment,

(c) Women in the labour process,

(d) Women within the household.

Important conclusions arrived at as far as women's labour in the Indian textile industry is concerned, include: (p 176-178).

(i) The gender division of labour varies between sectors. In mills, women are the smallest percentage of the labour force ; 14 per cent. In the powerloom, they are 33 percent of all workers (including unpaid family labour), and in the handloom sector, they are 47 percent of all workers. In the mills, the use of women's labour has decreased rapidly as a result of rationalisation, coupled with restrictive labour laws which apply only to women workers. In the powerloom sector, there has been a greater demand for labour than supply, and this has led to an increasing use of women's labour as the number of production units grow. In the handloom sector, the use of women's labour does not change much as it is related to her membership within the family, the unit of production.

(ii) Women are found in all types of labour relations within the three sectors, but with different types dominant in each sector. In the mill sector, women work exclusively as permanent workers, but are not newly taken on. Men are being hired and are found to work as both casual labour and apprentices. In the powerloom sector, both wage labour and unpaid family labour exist for women in equal numbers; for men, wage labour is more prevalent. In the handloom sector, 75 per cent of the women work as unpaid family labour and the remainder as short-term wage labour.

(iii) The degree of segregation by function also varies. In the mills, there is a very strong segregation of men and women by function. In the powerloom sector, women form more than 50 percent of all workers in each function except weaving, have access to all functions. In the handloom sector, women almost exclusively carry out the preparatory functions. They were only if male members of the household are not available. Segregation is greater than in the powerloom sector.

(iv) Substitution of men for women does occur in the mill sector. It is linked to the fact that women receive more protection from labour legislation than men (no night shifts allowed), so that when this is enforced, men are considered more 'useful' workers. Substitution does not occur in the handloom or powerloom sectors.

(v) Marginalisation of women by function is occurring in the mill sector, as women are being relegated from two functions to one lesser-paid function, which is also being slowly replaced by the other to which they are losing access. Again, the expectation is that a similar process could occur in the powerloom sector if rationalisation were also to begin. In the handloom sector this process is not apt to occur.

(vi) On the question of the effects of productive work on women's social autonomy, the author notes that the outer limits of the variation in social autonomy are set mainly by existing family structure and religious beliefs. Of such factors, the main influences on women's social autonomy were jati (Naidus practising less seclusion than Chettiars), marital status of women (married women having more autonomy than unmarried women), and the extent of daily house work carried out by the woman worker (the heavier her workload the less autonomy she had).

In the Indian shrimp industry the author notes that the casualisation of work (from registered units to unregistered units) has occurred extensively, as firms subcontract the pre-processing out to small production units through middlemen. This has led to lower wage levels, lack of fringe benefits and social security for the women workers who are found in greater numbers in the more casual types of work than in the relatively more secure types of work. Further, segregation between men and women by function is almost total in this industry, with very little change over time. (p 214-215).

In the Mexican shoe industry, according to the author, women are found in all types of labour relations ranging from permanent wage work to unpaid family work. The majority of women work in temporary wage work, disguised wage work (domestic outwork) and unpaid family work. The permanent wage workers found in large factories are a small minority among all women workers. The division of labour between men and women is most pronounced in workshops and domestic outwork. In large and medium-size factories, women are gaining access to more and more skilled functions but this has to be seen in the context of deskilling that has occurred for men.

Baud has herself indicated the several potential areas of research which have emerged from her study. These include the suggestions that models of subcontracting relationship are much more varied and extensive than usually thought of and therefore the variety and impact of these links need to be traced further. Further, the occurrence of various forms of casual labour extending even to large-scale production units needs to be studied for other industries and servives. The impact of changes within production units on "employment" needs to be specified within each category of worker since the extensive use of unpaid family labour leans to significant underestimation of women's contribution to economic activities. The extent to which a women's productive work and income increases the extent of her autonomy (bargaining power) within the household is still a relatively under developed area of empirical research and also an area where methodological problems also remain largely unresolved.

Our submission is that the further development of a model which incorporates the various relevant aspects, and, a *solution* to existing methodological difficulties *cannot* be sought within existing framework(s). If we begin by recapitulating what (industrial) development, say, to the women workers of this country, we find that:

(a) Women are concentrated at the 'casual's end of the continuum in terms of labour relations, with family relationships predominating, (b) women have less opportunities than men for becoming producers in their own right-fewer women than men are single workers or employers, and (c) women are more heavily represented in household production than in non-household production.

Therefore, beginning an analysis with the present production structure *as given cannot* answer the question (methodological or otherwise) as to how this same system will increase women's overall autonomy bargaining power) precisely because the present production structure is itself premised on a gendered division of labour in society. Solutions within this framework/will only increase the space available to women *without necessarily* increasing their autonomy.

'Autonomy' as a concept has nowhere been adequately defined by the author, in the study; 'autonomy' has been eduated broadly with women's bargaining power. This is not the place to go into a discussion of the concept; the burden of our argument however is that, if the author had made the *attainment of autonomy by women* as a central focus, the contradictions in trying to use this framework would stand out clearly. This would also explain to some extent why factors such as education, among others, had little influence on women's autonomy within the household.

A framework enmeshing the operation of both patriarchy and the production structure would, in our opinion, go some way towards explaining the existing methodological difficulties.

This is not to detract from the thoroughness of the enquiry and/or the important insights that have been brought out enriching our understanding of the gender aspects of industrialization. The book is a must for students of gender studies in particular.

PADMINI SWAMINATHAN

Publications of the Institute consist of the following categories:

1. Publications brought out by Messrs Sangam* Publishers : These consist of a series of monographs mainly relating to Rural Development of Tamil Nadu brought out between 1972 & 1980. Detailed list including prices available on request from the Programme Coordinator of MIDS. Orders may be placed with Sangam Publishers, 11, Sunkurama Chetty Street, Madras - 600 001 for these.

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3. Occasional Publications of the Institute Include :

a) *A Manual of Sources of Data on Tamil Nadu Economy* (1979) published by MIDS pp. 92, priced at Rs. 10/- per copy and Rs. 6.50/- for bonafide research scholars.

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c) Social Science Research in South Indian Universities—Listing and Review of Ph D. Dissertations (1989) Published by MIDS and ICSSR, SRC, pp. 260, Rs. 20/-

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a) *Poverty — An Interdisciplinary Approach edited* by B. Sarveswara Rao & V. N. Deshpande (1982) & published for MIDS by M/s Somaiya Publishers Pvt. Ltd., Bombay, pp. 296, Rs. 125/-

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c) *Some thoughts on the Seventh Plan* by Dr. Malcolm S. Adiseshiah (1985) & published for MIDS by M/s. Dialogue Publishers, New Delhi, pp. 136, Rs. 70/-

d) *Shaping National Events* by Dr. Malcolm S. Adiseshiah (1985) & published for MIDS by M/s Dialogue Publishers, New Delhi, pp. 335, Rs. 180/-

e) *Tamil Nadu Economy : Performance and Issues* by MIDS (1988) & Published for MIDS by Oxford and IBH Publishing Co. Pvt. Ltd., Delhi, Rs. 60/-

*These publications may be ordered directly from the respective publishers.

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MADRAS INSTITUTE
OF
DEVELOPMENT STUDIES
(MIDS)

The Institute was founded by Dr. Malcolm S. Adiseshiah in 1971 and was reconstituted in 1977 as a National Research Institute within the framework of the Indian Council of Social Science Research, New Delhi.

The aim of the Institute is to contribute to the economic and social development in Tamil Nadu and India

The activities of the Institute are:

—Research leading to Ph.D. Degree

—Studies and action-oriented research in micro-development problems

—Documentation and library service in development problems

—Exchange and dialogue at the State, National and International levels on development issues

— Publication of papers and results of the Institute

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BULLETIN

MADRAS DEVELOPMENT SEMINAR SERIES

Vol. XXII No. 8 August 1992

CONTENTS

EDITORIAL - SOME HIGHLIGHTS

I. General Economic Scene

State

Climate and Prices

June continued to be hot and sunny in the first half. The delayed south west monsoon advanced into Kerala in the first week of June, with scattered showers over Tamil Nadu. However by then 13 of the 22 districts had been declared drought affected, with 4 of them-Coimbatore, Periyar, Pudukottai and Salem being "very badly" affected. Particularly they faced drinking water problems on which by then the government spent Rs. 17.72 crores-Rs. 15 crores by the state government and Rs 5 crores from Jawahar Rozgar Yojana. CSO's monthly abstract for November 1991 is still the latest available and so the prices reported in May/June issue as of August 1991 for the index number of consumer prices for the industrial workers, agricultural labourers upto August 1991 and for urban non manual employees as of May 1991 is the latest available. For the city and over the state, prices of vegetables have risen sharply by 40-50 per cent, due to it is claimed, to the sudden drop in availability from the neighbouring Karnataka facing heavy rain in the area.

Power

During June, power in the state was affected by the shut down in the two Neyveli units following the strike for obtaining the demands of the workers on the dismissal of two officers, along with the national strike called by the trade unions to protest the national economic policy and its effects on workers. In addition to this 4 day half in Neyveli generation, AP drew 7 million units per day from the Tamil Nadu grid during the last fortnight of the month. The Tamil Nadu share from the Ramagundam Super Thermal has also not been available, so that the question of delinking from the southern grid has been considered. It is hoped that this short term problem will not lead to the delinking. The other thermal plants in the state at Tuticorin, Mettur and Ennore and the Atomic plant Kalpakkam along with the hydel reservoirs which began picking up from the monsoon inflows which in the Nilgiris have started satisfactorily, helped the state over this crisis of power. There were other problems faced by the state. The government announced at the beginning of June that from June 2 the free supply of power to farmers will be abolished and instead a lump sum levy of Rs. 100 per HP a year for agricultural pumpsets will be levied, with an exemption for small farmers. This power charge is to be collected in two half yearly instalments and would bring Rs. 55 crores per annum. The chairman of the Power Finance Commission has pointed out that even this tariff was very low and did not conform to the decision of the states power ministers to charge a minimum of 50 paise per KWH (See Vol XXII p233 & Vol XXI p493). However due to strong opposition by political parties and large farmers, on June 18 the government withdrew this charge and restored free power for pumpsets. This is a retrograde step which the government and TNEB cannot afford. For the current year, TNEB faces a huge revenue gap of Rs. 610 crores and its only means of meeting a substantial part of this gap is through a subsidy from the state government which it is not able to make, such a payment without increasing its deficit. The state government's subsidy is expected by the Board to remain at the same level as in the past - Rs. 300 crores as direct subsidy and Rs. 110 crores by way of waiving interest on loans. The proposed levy would have netted Rs. 50 crores, as earlier noted, which would have reduced the government subsidy by that amount but that is not so now. The state announced that it proposes to add 1168 MW power capacity during the VIII Plan for which an allocation of Rs. 3000 crores has been made, the present installed capacity of the state being 4310 MW.

The power situation in the country in June was a difficult one. In most states there were power cuts to keep the demand for power in line with the available supply. There was expectations of relief from the monsoon but even so the south west monsoon which brought heavy rains to Kerala's coastal areas has eluded the catchment areas, making the possibility of lifting the prevailing power cut somewhat remote. Following the uncertain and late monsoon, the low hydel storage and inadequate coal supplies point to an acute power crisis particularly in the north eastern states and Kerala which depend solely on hydel generation while even AP, Karnataka and Orissa with an ideal hydel - thermal mix have imposed 20-60 per cent cut on heavy industries. In June the question of the power tariff has been a major subject of discussion. An IBRD team came in June to review the $400 million loan proposal for major power transmission projects of the National Power Transmission Corporation (NPTC) and also oversee the much controversial transmission of assets of NHPC and NTPC to NPTC which is linked to this parrying question. The World Bank has laid down certain conditions for this loan which the power ministry is resisting, such as the transfer of the Regional load despatch centres from CEA to NPTC. Further, the National Thermal Power Corporation and the World Bank are in disagreement with the financing pattern to be adopted for the 3 major power projects - Rihand II, Vindyachal II and Faridabad - with a capacity of 2400 MW and worth over Rs. 6000 crores. The

government states that it will set up a national tariff board and five regional boards for rationalising the tariffs levied by the State Electricity Boards, but this does not meet the World Bank's criticism of low State Board tariffs because the proposed tariff board will have only recommendatory powers which will not be binding on the SEBs. The government hints at a unilateral decision to raise the union sector electricity tariff rate by 12 to 13 per cent which will only widen the gap between the union and the states charges. In a last ditch attempt to collect its overdues of Rs. 1200 crores from the State Electricity Boards (SEBs), NTPC is said to be planning a cut in electricity generation in its various stations and so regulate the flow of power to the SEB in accordance with its payments. The other major issue in the power sector in June is the role of the private sector in power generation. On June 17, the government opened the doors to fully owned US and other western countries enterprises to invest in the country's power sector and set up new giant power plants. A week earlier, 8 private foreign companies gave initial commitments to the government for investing $4.4 billion for generating 4700 mw electricity. In addition 6 private foreign companies have indicated to government, according to the power ministry, that they would like to set up projects totalling 2000 MU. A task force comprising officials of the World Bank, International Finance Corporation and Department of Power has planned to be set up to "coordinate and catalyse private power project" in specific states through the system of "pioneer projects". On particular projects, the government announced that the completion of teesta stage III hydro electric project in Sikkim is to be further augmented and that the World Bank has given the green signal to several urban electrification improvement projects and construction of transmission lines in AP, MP and Gujarat under its $260 million loan to PFC, earlier referred to.

Water

The major event in the water area in June was the release of Mettur waters for irrigation of 6.5 lakh acres from June 12, for the first time in 8 years. The initial discharge was 5000 cusecs raised to 15,000 cusecs. The Mettur water level was 91.55 feet against the full level of 120 feet and the inflow a meagre 183 cusecs. Because of heavy rains in Karnataka, the Kabini reservoir was overflowing and water from it has been released which will be 50,000 cusecs reaching Mettur by the end of the month (June). The other three events in the water area to note are: a) the south west monsoon which has been active over the Nilgiris district is not only beneficial to the hydel reservoirs, but is also helping the standing crops like potato, carrot, cabbage, cauliflower and spices over Udhagamandalam, Gudalur, Sholur etc. b) The government used the mid June visit of the World Bank team to appraise the Rs. 500 crores transmission and distribution network for the Telugu Ganga project which it is to assist: and c) The best part of Tamil Nadu's surface water potential (83 per cent) having already been exploited, the little that remains is of lower dependability and can be harnessed only at a heavy cost, according to the Evaluation and Applied Research Department of the state government. It has suggested the modernisation of the existing irrigation system which calls for a huge investment but which will take care of future irrigation needs.

Urban Development

HUDCO announces projects of Rs. 793

crores to Tamil Nadu, of which Rs.123.14 crores is for 1991-92. The Guided Urban Development Programme (GUD) is a pilot project in the Madras Metropolitan Area with an allocation of Rs. 2 crores for the first year. It is a component of the World Bank aided Tamil Nadu Urban Development project involving the purchase of low income serviced plots from private developers for research and provision of offsite infrastructure and community facilities. It is being implemented by MMDA, during the first year 10,000 serviced plots for the LIG and EWS are being readied. Along side the UN Centre for Human Settlements Sponsored Sustainable Cities Programme and the metropolis is also expected to start in July. It is a technical cooperation programme to support municipal authorities to improve their environmental planning and management capacity to provide these facilities for which the UNDP is to provide $650,000 which will help establish a development model for the city to make it environmentally sustainable. This programme is also parallel with the state government's Rs. 150 crore special self sufficiency programme in town panchayats over a 3 year period which will provide basic amenities in all villages. For Madras city, a beautification programme is under way involving the cleaning of the marine and removing its accumulated garbage, providing water supply to prevent slum dwellers in the vicinity, digging open wells in the marina and the use of the marina as a public convenience, controlling the proliferation of hawkers and giving fishermen alternative means for housing their equipment and drying their nets. Also cattle is to be removed from the city and the sticking of posters prohibited. The Union government announces a plan to form an Indian Building Congress to concentrate on issues and problems of the housing, industry - public, cooperative, and private. HUDCO's 1991-92 programme of Rs. 123.14 crores has upgraded urban shelter units under Nehru Rozgar Yojana (Rs. 17.49 crores), construction of market complex at Lily Pond (Rs. 43.46 crores), low cost sanitation cum scavenger liberation programme in 170 towns plus 107 municipal towns this year (1992-93), at the end of which the state will be scavanger free. The government announced in June that it plans to set up State Rental Tribunals, outside of court juris-ction to settle all housing matters.

Transportation

Work on the gauge conversion on the Madras Dindigul line is now broken into: a) conversion work from Dindigul to Tiruchi, b) the completed Dindigul to Madurai section and c) the plan for a new BG line beyond Madurai which has been begun this year. So work has now started from the Madras end and all that is needed is to change the metre gauge track to the widen guage lines. The target for the Southern Railway is to complete the gauge conversion from Madras to Dindigul by 1995. An integrated cargo exportation plan for Madras airport has been developed to meet the increased cargo inflow and outflow that Madras airport will face in 2000. The cargo plan will use the latest technology. Also with the highways department, a flyover between the airport exit and Trisulam railway station, a commercially viable subway on the Grand Southern Trunk Road are being planned. The programme of Diesel substitute for buses is being given a push through the pilot project to run buses using Compressed Natural Gas (CNG) with the 6 month intensive trial from July. It is to use a complemedt of 10 buses of the Cheran Roadways Corporation (CRC) in the Nagapattinam-Thanjavur route. So far

8 buses have been modified to run on CNG diesel dual fuel modes. This programme is already showing 70 per cent of diesel saving which is needed by the state and country.

States Fiscal Policy

The question of the states' fiscal policy is going through several phases. Starting with a large deficit of Rs. 898 crores in 1991, the stopping of the cheap liquor scheme costing Rs. 322 crores raised the deficit to Rs. 1220 crores. With careful fiscal management, the deficit was reduced to Rs. 322 crores in the 1992-93 budget. The government has had to face several DA burden (see Vol XXI p548), a further increase in the rice subsidy (see Vol XXII p231), an incentive scheme to lower the cost of interest and penal interest as an overdue to farm loans has increased the deficit to about Rs. 700 crores. The government has tried to: a) increase bus fares but had to retreat on it (see Vol XX1 p541), b) increase the price of PDS rice to the non poor but also retreated on it, c) levied a small change for electricity for pumpsets but also had to give it up as noted earlier-so that the Annual Plan of Rs. 1751 crores which the government fought hard to get and the Five year Plan of Rs. 10,200 crores are in some jeopardy. The government has allowed IMFL shops be licensed for bar which can sell liquor which will bring in Rs. 100 crores from the shops and Rs. 300 crores from the bar licenses. This retreat from the prohibition policy is inescapable, only what has happened is that the poor man's liquor has been banned, while the well to do get theirs at the IFML shops and bars. Again in order to earn more revenue the government has levied a sales tax on sale of REP licenses, which have now been abolished with the partial convertibility of the Rupee. Another fiscal burden on the government is its decision on 'Kist' remission which will total Rs. 75 lakhs based on reports from collectors in the drought hit districts. Thus at the end of the first year of its rule, the government is in an uncomfortable fiscal situation because it has not been able to take hard decisions and stand up for them.

Mining Policy

The union government has called on the state government to formulate a mining policy for minor minerals. Now this task is a state government activity but had allowed a part in it under certain conditions. The policy should spell out the conditions so that every one would know what they are.

National

Plan

The Annual Plan for 1992-93 is facing serious problems of resource mobilisation following the securities scam reported in the last issue. Key sectors such as railways, power, communication and petroleum which were to raise a good part of their resources (Rs. 11,000 crores out of Rs. 40,000 crores) by raising money from the market have been asked by the finance ministry not to do so for the time being. The states also were to raise Rs. 4100 crores from the market-which makes a large Rs. 15.235 crores from the market. The Plan has also a rather unorthodox entry called negotiated loans which involve some state governments using the Infrastructure Leasing & Financial Services (IL & FS) to advance loans to build infrastructural facilities on mutually acceptable terms This scheme enables the state to inflate the plan without higher union plan assistance or increased market borrowings. They carry lower interest at 11-12 per cent, do not form part of "market borrowing" and are outside IMF conditionalities which lay down ceilings of union assistance to states and the extent of market borrowings. Some of the deficit states like UP, West Bengal are relying on this source-which is really a subsidiary of SBI and so seems to be a way of getting around a real obstacle. The commission states that it is launching a micro level planning and participatory development project in 150 blocks this year, with a 3 tier institutional system with local communities at the village, block and district levels to identify needs, work out priorities and implement plans.

Prices

The inflation rate for May using the wholesale price index on a point to point basis is a little over 1 per cent, the index standing at 220.9 on May 30. The annual rate of inflation stood at 12.8 per cent using the 'disposed' components of the provisional index of 1992 with the final index of 1991 and stood at 13 per cent using the provisional index of both years. This is far away from the 9 per cent commitment made to IMF in the August 1991 memo (See Vol XXII pp66 & 67). The major elements for the inflation rate moving up in May was rise in food prices - jowar by 3 per cent, rice, wheat and moong by 1 per cent each. Coir fibre rose by 3 per cent, rubber 7 per cent. The consumer price index for agricultural labourers has been rising faster than the other indices - which means that the rural poor are bearing the brunt of the inflationary pressure.

Budget and Stock Exchange

The Union government on June 19 announced reductions in union excise and customs duty for motor cars, light commercial vehicles, TV sets both colour and black and white, bulk drugs and drug intermediates. These concessions amount to over Rs. 100 crores in a full year but much of this loss is expected to be compensated by higher revenues through large sales and imports. On the stock exchange front, the new guidelines on capital issues by SEBI is not that they level the field for play between dispersed unorganised investors and powerful corporations, but because with these SEBI has established a supervisory mechanism which the government had irresponsibly jettisoned in the name of marketisation. The free play given to hustlers and manipulators helping to raise prices of corporate issues, mushrooming private placements, so that the SEBI guidelines is one of damage limitations In time SEBI's regulation will ensure that corporate power is not abused to the detriment of the investor and that he is given detailed information to assess risk and reward. This is an important and replaceable service of SEBI to the investor which the market cannot perform. The market as the focal point of a variety of institutions stock brokers, credit rating agencies, company auditors whose profiting and, accountability has to be established. SEBI will have to be contend with both corporate power and resistance from bureaucrats in government and financial institutions. This dangerous combination will have to be broken. The Janikaraman Committee of RBI has found that the multi crore scam amounts to Rs. 3078 crores, with the National Housing Bank

in the lead with an involvement of Rs. 1200 crores, along with many account payee cheques drawn on the RBI in favour of SBI and Grindlays being put in Mr. Mehta's acount. There was indiscriminate issue of Bank Receipts (BRs) and lack of monitoring by RBI. Above all the real loss is placed at a small higher Rs. 17,000 crores and several banks, financiers and even politicians are alleged to be involved in the scam.

Tenth Finance Commission

On June 15 the government announced the constitution of the X Finance Commission under the chairmanship of K.C. Pant with Mr. Debi Prasad MP, BPR Vittal a former IAS officer and Dr. C. Rangarajan and Mr. M. C. Gupta IAS Member Secretary. It has been asked to recommend the distribution between the union and states of the net proceeds of taxes which are to be decided between them and also the principle to govern the grants in aid of the revenues of the states out of the consolidated fund. The normative approach of IX Commission has been dropped. The union expenditure on administration, defence, border security and debt servicing is to be taken into account against the demands for transfer of more resources to the states. The commission has also been asked to look into the need for ensuring reasonable returns on investments by the state in irrigation, power, state transport, departmental commercial undertakings and public sector enterprises. Thus 5 out of the 9 issues that the commission is to study and make recommendation to deal with the financial relations and seems to follow the finance minister's statement at NDC last month-that there is little scope for an additional devolution of funds from the centre to the states who are now expected to look inwards to increase their finances. This is the reason why the commission is asked to look into the tax effort in the state and the need for ensuring reasonable returns on its investment. Also the need to reduce fiscal deficit of the union and state governments-not only the revenue deficit as in the past. Also it is good that the norms on for returns on past investment have been dropped but some norms for returns are necessary to put all states on a level playing field. The use of the 1971 population data is good as it will not reward states which have done little to limit the growth of population. These arrangements may not add to the revenues of the state governments and the union will not be in a position to increase the share of the states in excise duties and income tax receipts. The question of how large industrial centres which are making a significant contribution to revenue through corporate taxes can be helped to strengthen infrastructural facilities with union subventions on a defined basis needs attention. The task before the commission is formidable - how to keep revenue and fiscal deficits both of the union and states down, how to share tax revenues equitably and optimally, how to get both union and states to increase the returns on their investments, and above all to give the state a little more financial leeway so that they can fulfil the developmental responsibilities that the constitution has entrusted to them. It is the feeling of this Bulletin that this last can be achieved only if the union is made to pull in its proliferating financial scope. And that the commission must ensure.

Economy

In June there were a number of comments on the Indian economy by the World Bank, OECD, Standard and Poor and other outside bodies. The World Bank: a) gives Indian economic reform programme its strong backing as evidence of which it released on June 23 the second and final tranche of $200 million of its structural adjustment loan, b) feels India has not yet turned the corner on the BOP problem and that the Indian foreign exchange position is acute as it was in the last 3 years, for which it has recommended that the aid to be pledged by Aid India Consortium should be at last year's level of $6.7 billion, c) is critical of the government failure to bring about the necessary reforms in the financial sector and to formulate an exit policy which is crucial to attracting foreign investment, and d) warns that any delay in reducing the budget deficit or in implementing structural reforms will erode the credibility of its economic readjustment programme. The Organisation for Economic Cooperation and Development in its comment states that India's liberalisation efforts are deliberately weak and undefined due to the strong domestic constituents in favour of retaining the protective inward orientation to the trade regime. This conclusion is in its 4 nations - Brazil, Korea, Thailand and India - comparative liberalisation performance review. The study says that the 4 countries had differences in the degree of the policy shift and hence in the success achieved. It forecasts a 4 per cent overall growth in 1992-93 against 2 per cent in 1991-92 and a narrowing of BOP deficit. Standard and Poor, the US credit rating agency, has warned that India's failure to reduce inflation fast or stimulate quicker economic grow h could delay critical fiscal consolidation or encourage other policy slippages that would erode external financial support. This, it points out, will postpone the reversal of India increasing a heavy net external debt burden which reached an estimated 230 per cent of exports last year Hence it continues India's debt rating at BB+1 reflecting India's heavy external debt burden and vulnerable external payments position, the management of which is constrained by large fiscal deficits, high inflation and low levels of dovelopment. Hence India's credit rating has not been raised to the investible grade. The Finance Minister responds to the Bank that the formulation of an exit policy will have to await the government putting in place a credible social safety net and that there was no delay in the implementation of the reform programme beyond the time needed to take the people along with it and gain their willing acceptance. The mini budget involved in the reduction of import and excise duties raise many questions about fiscal policy supporting the programme of structural adjustment. This together with the tax concessions given on April 29 and now on June 19 will make curbing the fiscal deficit difficult and will continue the monetary pressure on prices. This will not help bring more aid pledges nor will it attract more private investment. The problem is that it is difficult to reassure the foreign investor of stability in an essentially unstable economic environment. The RBI's interim committee report on the stock scam has recommended setting up a share holding corporation to allow banks to conduct their transactions in PSU bonds, units and similar securities, obviating the need for issuing bank receipts. It also recommends the practice of banks entering into "ready forward" and "double - ready forward" deal with other banks should be prohibited In mid June RBI acted on this recommendation, which has been criticised as going back on the policy of liberalisation and decontrol. The union government reports that following the recommendations of

NDC it will be transferring 113 ongoing projects to the states. The VII Plan document states that for over 300 union projects units, an estimated total cost of Rs. 94, 500 crores are gripped by time and cost overruns 201 of them had cost overruns with respect to original estimates, and 168 had overruns of the project cost. The national report on environment in India defines India's traditions, policy, structures and future perspectives in the context of environment and development. The government reports that NSS shows that in 1977 52 per cent of the population comprising 253 million was below the poverty line, in 1983-84 the corresponding figure was 40.4 per cent consisting of 225 million and in 1987-88, the last survey, 33 per cent comprising 197 million were below the poverty line The VIII Plan envisages an outlay of Rs. 30,000 crores to provide safe drinking water to all rural areas. On land reforms a pilot project computerises land records in 21 districts and in the VIII Plan there will be full computerisation of all land records in all states. So far the total area declared surplus is 72 56 lakh acres out of which 62.62 lakh acres have been taken possession, 48.84 lakh acres distributed to 44.42 lakh beneficiaries of whom 50 per cent are SC and ST and 11·42 lakh acres involved in litigation. At least one district in every state will have an integrated poverty alleviation programme for rural development and in the VIII Plan atleast one district from each state will be selected for it requiring district planning on the basis of land and water survey. This new method of poverty alleviation is part of the Rs. 14,000 crore rural development programme during the VIII Plan raised to Rs. 30,000 crores during the NDC. In this connection, the Indira Gandhi Institute of Development Research states that the most crucial policy to combat would be to increase the demand for productive employment and to augment the selection of the problems through education. The present policy of low food prices through input subsidy has now become untenable. It would be better to subsidise investments and support agricultural research rather than subsidise current imports if coarse-food is desired, also stepped up investment in irrigation could be targetted to backward areas or to poor farmers to generate employment. Further, the Economic Survey Advisory Council to the Prime Minister has expressed grave concern over relatively high foodgrain prices, low stocks for public distribution system and a marked slow down in agricultural investment and has called for an integrated programme for the management of the food economy, to counter the stagnation in foodgrain production since 1988-89 and the shift in the acreage from foodgrains to commercial crops. Thus June marked a wide and variegated approach to the economy from the many national and international expert studies and sources.

Industry

Following the deceleration in the past several months, in February 1992 industry showed a turn around and registered a 3.4 per cent growth, increasing industrial growth for April-February 1991-92 to -0.4 per cent from-0.9 per cent during April-January, the growth rate during April-February 1991 being a high 8.5 per cent. This means that for 1991-92 industrial growth may be zero, the recovery being attributed to the government's industrial policy measures. In this connection OECD points out that even as industrial deregulation is growing, it is necessary to monitor industry to ensure that an anti-competitive market structure does not emerge in the wake of the economic reforms. The Department of Programme Implementation states that the production performance of 9 infrastructure sectors during 1991-92 showed mixed trends. In power, overall power plants generation fell by 18.5 per cent, the State Electricity Board should raise their thermal stations PLF from the very low level of 50.6 per cent in 1991-92 and haulage of coal during the year was inadequate at 11,000 wagon per day against the required 12,000 wagons. Coal production met the 228 million tonnes target, coking coal quality continued to deteriorate in terms of ash and mixture content and 1992-93 has started with a new stock position. Still in terms of hot steel and saleables surpassed their targets, but ingot steel production was below the target, installed capacity of integrated steel plants was not fully used and in 1992-93 Bokaro, Bhilai and VSP research show good results. In telecommunication, demand is far ahead of availability, with the waiting list for telephones being 22.60 lakh on 30.09.91 a proper mix of investment in switching equipment and tele instrument production is needed. In petroleum, the deceleration in crude products from 34.09 mt in 1989-90 to 30.34 mt in 1991-92 is due to fall in production of the Bombay High damaged wells and the high gas to oil ratio which forces ONGC to reduce oil production. Products of natural gas has been less than last year. The non achievement of the targets for petroleum, fertiliser and cement has affected the rest of the economy. It is pointed out that in the heavy investment field of petro chemicals, 3 projects - Mangalore, Reliance-Hazira, UB-Vizag - are being set up, a number of proposals for mini and integrated steel plants have been approved, in transport at Nehva Spera and Calcutta private groups are setting up ports, railways have produced own your wagon scheme - all showing that now there is no sector that the private sector is not involved in, the old fear that the private corporate sector does not have the resources to enter the infrastructure field is not only no longer true, the boot is now on the other foot. Now it is the government which does not have the resources and turns to the private sector to take over certain large industries. But as the experiences of the power sector shows, where despite the guaranteed returns on equity, a liberal debt equity ratio, the facility for repatriation of dividends, — foreign nor domestic companies are interested because they are not sure that their consumers will pay for power. If NTPC and SEBs cannot collect their dues, and if SEBs are all now in a state of utter bankruptcy, the private sector does not wish to step into the mess. Hence what is required is a good investment climate which government should ensure by removing the kind of obstacles which the power and some other sectors face. Thus the function of planning is to both plan public investments in key sectors and create appropriate investment climate to bring in the investments needed. Delicensing and the easing of entry restrain into the industrial sector has made tiny units - with capital of less than Rs. 5 lakhs and empoying 25 persons with electricity and 50 without, afraid of competition from large units. To meet this fear, government has exempted them from factory act provisions (which means only the minimum statutory wage and normal safety measures will be binding on them and proposes to exempt them from implementing employees provident fund and insurance schemes. This will generate more investment and employment in this sector and in a sense regularise what unorganised sector employers are already doing in circumventing the labour laws. But what is

important is that this will free the tiny sector from the clutches of the corrupt inspector. The proposals to provide the concessional finance will encourage capital intensive methods in this sector. What is needed is quick clearance of their applications by banks and not really concessional finance. And the term of special products for the tiny sector should be limited so that these units can grow into medium size and not remain always tiny. It is meant for those operating in the informal sector which is a floating population. The union government states that it is planning to set up a Small Scale Industries Board to advise it on policy matters concerning small industries, this would be the means of keeping under review the issues raised above with regard to the tiny sector. The union government states that it has drawn up an integrated infrastructural development scheme for setting up a modern industrial estate in each state. It has approved 495 foreign equity proposals totalling Rs. 1850 crores. The state government will have to provide for the estate the needed land and water supply. The union is also to launch a programme to create a new category of entrepreneurs and to promote self employment by providing venture capital assistance. This will generate 2.5 lakh additional employment in the areas of small industry. In a move to simplify and rationalise customs laws, the government has introduced the facilities of a green channel for import of cargo, self assessment of import documents and duty liability of importers themselves and of easier imports through international courier service, raising the duty free allowance under the baggage rules from Rs. 2400 to Rs. 3000 per passenger. These changes should help increase import and export trade. On specific items, an independent commission headed by Bradford Morse finds that the Sardar Sarovar project as they stand are seriously flawed and that there are fundamental failures in their implementation. The World Bank which received the report however states that it will continue to support the project. The cotton textile industry faces a crisis due to the slack demand including export orders coupled with a severe liquidity crisis. SIMA goes further and states that the textile industry, particularly the spinning sector in South India which was faced with a production glut is now in for a recession.

Public Sector units

In June there are 2 developments in the area of public sector enterprises to be noted. First, 3 railway production units exceeded their targets-while Wheel and Axle Plant in Bangalore fell short of its target for April-May at 10,517 against the target of 11,858 and 6749 axles against 8260, the Diesal locomotives Works Varanasi produced 22 diesel locomotives against the target of 21, the Integral Coach Factory, Madras produced 179 coaches against the target of 157 and the Rail Coach Factory Karnataka produced 180 coaches against the target of 366 and the Chittergon locomotive works was on target at 19 diesal and electric locos. The other issue is a report by the World Bank calling for a better programme of action by the public enterprises envisaging diversification of ownership and limited privatisation. It states that the performances of enterprises which have to be in public hands should be improved by giving them autonomy to invest, to set prices and wages, to borrow and to hire and fire. Privatisation is time consuming as UK, Brazil, Mexico and Malaysia have shown and so it advocates industrial deregulation beyond what the Indian government has so far done and opening more area for private investment, facilities for exit of unviable enterprises and other elements of public enterprise reform which form the major part of its recommendation in the document produced for the Aid India Consortium. The Bank seems satisfied with the Government approach on financial sector reforms in line with Narasimhan committee but wants much more done on industrial deregulation. These recommendations of the Bank desire careful and serious study by the government.

National Production Front

SAIL

SAIL's R&D department reports developing import substitute springs for use in steel plants. This replacement of imports involved a saving of Rs. 1.5 crores in foreign exchange a month, when the process knowhow is used for large scale production to meet the country's total demand. There is a call by the government to raise the production of pig iron to meet both the rising domestic demand and the international trade demand which amounts to 10 million tonnes a year. With India's plentiful pig iron resources and the indigenous blending techniques, the prospect of producing 2 million tonnes of pig iron per year should be attained by the end of the VIII Plan. The states of steel production in 1991-92 was earlier referred to. Kudremukh Iron ore company, announces setting up a pig iron plant at a cost of Rs. 4.55 crores in Mangalore.

Crude

Further to the report of the Ministry of Programme Implementation on crude and petroleum production referred to earlier, the crude target for 1992-93 has been cut by 10 per cent from 29 million tonnes in 1991-92 to 25.54 million tonnes in 1992-93. This cut set forth in the MOU between the ministry and ONGC confirms the fear that the country's domestic production is unable to meet the rapidly rising demand. The moral is clear-cut and conserve oil consumption.

Coal

Coal production has been meeting the annual target as reported earlier at 204.14 million tonnes (0.14 million tonnes above the target) and has set the 1992-93 target at 210 million tonnes. But CIL reports that the mine fires in the coal fields of Jharia and Raniganj have destroyed 37 million tonnes of coal, a large part of which was fine coking coal which we can ill afford to lose. Access to 1850 million tonnes of coal valued at Rs. 70,000 crores is blocked by the fires. Through fire control measures, CIL states that it was able to save coal worth Rs. 4388 crores.

Non Ferrous

News in June on the non ferrous front is mixed. On the one hand the ministry of mines reports that the output of aluminium and copper continued to decline for the second year. In the current financial year - the April-May 1992 production of aluminium of 83062 tonnes being below the April-May 1991 production of 84,314 tonnes and well below the target of 86,763 tonnes. While the private sector HINDALCO was able to increase its output for that period from 27,498 tonnes in 1991 April-May to 27,876 tonnes in April-May 1992, it was still below the 2 months target of 28,000

tonnes. It was NALCO, the public sector unit which is doing poorly - with an installed capacity of 2.18 lakh tonnes per annum, producing 31,031 tonnes in April-May which was lower than the previous year's 2 months output of 31948 tonnes. NALCO has signed an MOU with the government to export 4.20 lakh tonnes of aluminium and 65,000 tonnes of lead in 1991-92, which if realised will be good.

Agricultural Production

The June information on the agricultural front is worrying. With the peak of the marketing phase of the wheat crop completed, it looks as if this year's wheat procurement will be below last year's poor 7.7 million tonnes, far from this year's target of 9 million tonnes. In the last rabi season, wheat procurement was poor because of high open market prices and for this year even the 24 per cent hike has not proved enough. This is serious for both the food economy management and its inflation consequences. This poor wheat procurement performance may be repeated in the coming kharif season, because farmers in the major rice producing regions Punjab, Haryana and UP have made it clear that unless the procurement price equals the market price they will not part with their grain stocks. There are inter-related problems of suppliers and expectations which cannot be tackled by simply imposing curbs on food movement or denying credit to farmers. Last year's drought led to a sharp fall in coarse grain production and to a much higher demand for wheat. Bajra went up to Rs. 480 per quintal, Jowar to Rs. 600 and so Wheat went up to Rs. 350 per quintal, way above the government's procurement price of Rs. 280. With a poor monsoon ahead, production is expected to fall further staking up inflationary expectations. This can be toned down only by increased supplies, which means that the government must import 2 or 3 million tonnes of wheat. On June 27, government announced purchase of 1 million tonnes of wheat from Canada at $145 per tonne. This shipment will begin to arrive in mid July. US is now willing to sell, but the price of Rs. 450 per quintal which is way above the market price of India, but can help reduce market prices which the poor majority need. This will also improve procurement during the next kharif and rabi season, since the gap between procurement and market prices will fall. Hence it is urgent that more wheat imports be arranged so that wheat flows into the market by the end of the year. Meanwhile the decline in both the yield and the rate of growth of coarse cereals is disturbing. The area under coarse cereals declined from 100 in 1989-90 to 77.6 in 1990-91, the rate of increase in production turned negative at -0.3 between the triennial ended 1979-80 and 1988-89, prices of coarse cereals which were stagnant or falling, increased by 3.1 per cent in 1990-91 and a massive 69.7 per cent between January 1992. With the inferior foodgrains accounting for a major portion of the diet of the poor, these trends sharpen the cutting edge of the current inflation noted earlier. What is needed is increase in the area, in the quality and irrigation of what is grown of coarse cereals which also depends on the policy regarding the superior cereals. In view of the delayed arrival of the monsoon, the agricultural ministry has sent out expert teams to the states to help study the crop pattern that calls for better crop production, management so as to achieve the target of 183 million tonnes of foodgrains for the next year, involving increasing cropping intensity by adopting appropriate short duration and low water demanding varieties, particularly in paddy fallow area. One good and positive piece of information is that the assessment based on the satellite imagery pertaining to 1987-88 shows that the extent of green cover in the country has increased by 56,000 hectares since the previous survey in 1985-86. What is significant is that there has been a decline in the open forestry of the country and a marginal fall in the area covered by mangrove forest so that the net increase is the dense forest cover of 7140 sq kms over the 2 year period.

Foreign Trade and Balance of Payments

In June the foreign trade/BOP picture was disturbing The commerce ministry reports that in April 1992, the first month, recorded a negative export growth of -8 per cent in dollar terms. The exports to the general currency area which were rising in past months showed a decline of -1.65 per cent in April (compared to April 1991), the exports to the rupee payment area declined sharply by 49.39 per cent. Exports in April were $1369.71 million and imports $1789.64 million showing a trade deficit of $419.93 million. Thus in April exports declined by 7.97 per cent, while imports increased by 24.5 per cent - reflecting the government lifting import curbs. It is not surprising that the Finance ministry reports that foreign exchange reserves which had registered an uninterrupted increase since August 1991, started to decline from April. At the end of March 1992 the reserves stood at Rs. 14.578 crores, the decline in April and May standing at Rs. 13,922 crores on May 29 - due as stated earlier, to the increase in imports. In this connection the Planning Commission points to the special attention to restricting imports of crude oil and petroleum products. On exports to help its growth, government has taken a number of steps, such as the duty drawback for 161 items and the new scheme launched by RBI for NRI which may also lead them to boost exports and the other decision referred to under the economy section. On specific items, engineering exports are targetted to increase from Rs. 4525 crores this year to Rs. 6250 crores next year, the soft ware industry reports a record Rs. 420 crores, exports during 1991-92 (+64 per cent) despite the recession in major importing countries; the plastic industry has targetted Rs. 402 crores as the export target for 1991-92; leather exports-the third largest foreign exchange earner-is poised for a boom this year from Rs. 2500 crores in 1990-91, a four fold increase in 4 years; spices exports during 1991-92 touched an all time high of 1,30,567 tonnes valued at Rs. 362.04 crores; textile exports also recorded a high Rs 1, 13.63 crores in April 1992 against Rs. 674.62 crores in April 1991. An increase of 74 per cent, handloom fabrics exports in 1991-92 increased by 41 per cent at Rs. 1188.44 crores; and exports of synthetic and rayon textiles recorded a sharp growth of 60 per cent in April 1992 at Rs. 93.67 crores against Rs. 55·35 crores in April 1991, the highest increase being in exports of yarn. The government states that it has identified 8 engineering items where an annual growth of 30 per cent can be achieved with its support.

Loans and Aid

The major event in the field of international loan and aid to India was the pledge of the Aid India Consortium meeting in Paris on June 26 of an enhanced aid package of $7.2 billions, including $3.4 billion on the nature of fast disbursing assistance. The pledge is a 7.5 per cent increase over that of

last year at $6.7 billion and that fast disbursing component is $1 billion more than the $2.3 billion of last year. The World Bank who headed the meeting and the consortium have outlined a 10 point programme of action on which India has to take early action. The 10 points are: a) control of BOP situation, b) the recovery of growth on a non inflationary basis, c) the social aspect of the adjustment process, d) skilful debt management, e) further reduction of tariff, i) unify the exclusive rate, g) restore growth momentum as early as possible which will minimise social cost of adjustment, h) decline in public expenditure, i) reform public enterprises and the financial situation and tax system and j) improve performance of the agricultural sector. Japan which announced $850 million ODA including $250 million in quick disbursement aid during the Indian Prime Minister's visit to Japan in the last week of June had included all this and other aid offers during the month in its consortium pledge. The government is very satisfied with the outcome, to which three caveats need to be attached: first, the burden of repayment need to be borne in mind in computing the net aid: second, the ten conditions attached to this aid is to be imposed by all the members of the consortium: and third we are getting further and further away from the target of zero net aid which was formulated way back at the time of the draft V Plan. On individual project loans and grants, IBRD states that it will provide $350 million to the Chandapur unit of thermal power plant in Maharastra, IDA is making available a credit of $79 million to help reduce fertility and child and natal mortality rates in the slums of Delhi, Calcutta, Bangalore and Hyderabad. India announced at June and that it is negotiating with the World Bank $500 million structural adjustment loan for an Indian Social Security net programme that will include the National Renewal Fund. The World Bank states that it will increase its commitment to the family planning programme to the extent of 10 per cent against the $2.7 billion set forth in India's VIII Plan. The Asian Development Bank has approved $250,000 technical assistance for a road project as part of the National Highway. The US Aid is providing $50 million for crude, degummed, soyabean oil in 1992-93. The Finance ministry estimates net external aid inflows to India increased from Rs. 2603.11 crores in 1990-91 to Rs. 4686 34 crores in 1991-92 - with aid inflow at Rs. 11077.86 crores and outgo of Rs. 3492.78 (repayment of principal) and Rs. 2760.48 (payment of interest). Bombay Dyeing reports that it is raising $75 million by way of Euro-Convertible bonds.

International

Rio

The United Nations Conference on Environment and Development (UNCED) which has been under preparation for 2 years met on June 3 for 16 days at Rio de Janerio. It was attended by 178 nations including over 100 Prime Ministers and heads of state and governments. It adopted unanimously the Rio Declaration which states that human beings are the central concern of sustainable development and set the goal of establishing a new and equitably global partnership through the creation of new levels of cooperation among states, key sectors of societies and people. The right to development must be fulfilled so as to equitably meet developmental and environmental needs of the population and future generation. The conference adopted Agenda 21, the comprehensive document that will set the planet on a new course of sustainable development and save the fragile earth from environmental degradation. It estimated $600 billion as the incremental additional cost of Agenda 21 proposals to make the overdue development of the South sustainable and $125 billion annually additionally for economic assistance and technology transfer from the north to the south. 42 countries have signed the climate change convention and 40 have signed the bio diversity convention. These were impressive achievements among conflicting interests of the participants - the developed countries whose high consumption is the primary cause of global environmental degradations, the developing countries whose growing consumption is a necessity for industrialisation, and the least developed, for whom poverty alleviation and sustenance is more crucial than environmental concerns per se A sustainable development commission has been proposed to monitor the implementation of the conventions and help raise finances The main achievement of the conference was to bring to the attention of all persons - particularly the young who were not at Stockholm and who have not heard about it - about the major linkage between development and the environment. Second, the important agreements and decisions made at Rio now need to be strengthened and followed up step by step.

World Economy

The 1992 UN World Economic Survey says that strict efforts to reduce fiscal deficits in Germany, Japan and US could lead to lower global economic growth. But the leading industrial nations could stimulate economic growth by reducing their plans to cut their government budget deficits and divert the money to investment. The savings could be directed to strategic investments and aid to developing countries and the nations in Eastern Europe and former USSR which are struggling to convert to market economies. The cut in fiscal deficits by $400 billion this year will allow lower taxes and interest rates and stimulate growth and investment and reduce unemployment with a modest inflation rate. The report says that if deficit reduction plans in Germany, US and Japan were reduced by half, inflation would rise lesser than 0.2 per cent and to about 4.1 per cent, but GDP will be raised - in the US to 3.7 per cent by 1996 from 3.3 per cent in 1993, in Germany by 2.4 per cent from 1.8 per cent and in Japan the GDP growth will be 3.7 per cent from 3.4 per cent. Resuming should be the major priority (the G-7 group). The survey predicts that in the current economic policies unchanged, the average GDP growth will be 1 per cent in 1992 and 3 per cent in 1992. The economy of the major industrial countries will grow by 1.7 per cent in 1992 and 3.2 per cent in 1993. It warns against "unnecesarily restrained" world economic growth because of inadequate world investment. The ILO study is a little more optimistic in stating that world wide inflation will be controlled in 1991 at varying rates - in Africa 10 countries, had high ratio, nine countries low rates, in Europe 8 states out of 21 recorded inflation. Only Brazil showed a 3 figure inflation rate but even so managed to bring down its inflation from 1639 per cent in 1990 to 458 per cent in 1991. Uruguay also had a high rate at 129 per cent in 1990 reduced to 81.5 per cent in 1991. In Africa, Uganda had the highest rate at 34.9 per cent, followed by Zimbabwe 31.1 per cent, Ghana reduced its rate sharply from 35 per cent in 1990 to

10.3 per cent in 1991. In Europe, Turkey had the highest rate at 71.1 per cent in 1991, rising from 60.4 per cent in 1990, followed by Czechoslavia from 1.6 per cent in 1989 to 18.3 per cent in 1990 and 84.1 per cent in 1991. All European countries showed rates from 2.5 per cent (Denmark) 64.9 per cent (Netherlands). Of 95 states studied by ILO, 9 showed an increased rate for 2 years, 17 showed lower rate for the second year, with Poland coming down from 354.7 per cent in 1989 to 290.5 per cent in 1990 and 62.5 per cent in 1991. 8 countries had a diminishing rate, with Bahrain at -2 per cent.

World Unemployment

ILO in its 1992 world labour report shows that unemployment and poverty are worsening both in developed and developing countries, but the percentage of poverty among rural people is declining in most Asian countries including India, Bangladesh, Pakistan and China. It refers to India's special programmes offering credit and subsidies to the rural poor to set up enterprises which has reduced rural poverty. In Pakistan remittances from overseas workers played the same part. But in Africa urban unemployment is expected to triple from 9 million to 28 million, raising the unemployment rate to 31 per cent by 2000. Around 50 per cent of Africa's population now live in poverty and they will increase by 50 per cent between 1985 and 2000. During the 80s underutilisation, that is unemployment and under employment rose from 40 to 42 per cent and poverty from 25 to 31 per cent. Unemployment in East Europe and former USSR may soon reach 15 to 20 per cent when privatisation hits the unemployed workers in the states sector. Due to continued recession, unemployment in the industrial market economies is moving up to 7 to 8 per cent of the labour force. All of the newly industrialised economies of Asia have very low unemployment rates, much of their earlier success being based on low labour costs and sound policy environment. But as wages increase and competition grows the NIC are adopting higher level of skills. Indonesia, Thailand and Malaysia are on the way to becoming NICs but they will face unemployment problems, according to the ILO. The countries with most serious unemployment, where under employment is 40 to 50 per cent are Bangladesh, Nepal and Myanmar (Burma).

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II. Agricultural Development in Tamil Nadu

Paddy and other crops

With the release of water from the Mettur reservoir on the scheduled date of June 12 and the release of water from the Pechiparai and Perunchani reservoirs in the Kanyakumari district, Kuruvai and the kar paddy cultivation has been taken up by the farmers in full swing. Cultivation of the sornawari paddy crops has also been taken up utilising ground water in the northern districts of Tiruvannamalai-Sambuvarayar, North Arcot, Ambedkar and Chingleput-

MGR. Paddy seeds, fertilisers, micro nutrients, horticulture and plant protection chemicals are being bought and taken up by the farmers at an increasing rate. Utilising water from filter point wells, they have raised community nurseries in the delta to facilitate distribution of paddy seedlings, and as water from the Grand Anicut is being released transplantation is also being taken up on a large scale. The farmers are very satisfied because it is the first time in 8 years that they are not being forced to skip kuruvai or cut it down to small proportions as they are now assured of water till harvest. The kuruvai crop is being extended over 5.9 lakh hectare, including 2.45 lakh hectares in the cauvery delta covering Thanjavur, Quaide-e-Milleth, Tiruchi, South Arcot and Pudukottai. Monopoly procurement of paddy is being continued in the cauvery delta, where 12.14 lakh tonnes of paddy has been produced. Small and marginal farmers in panchayat unions are obtaining the government's fertilisers subsidy of 30 per cent given through the TN Agro Industries Corporations for their wetland as well as dryland cultivation of crops. Farmers who had wetlands obtain a subsidy of Rs. 210 when purchasing Rs. 700 worth of fertilisers and dryland farmers receive Rs. 140 when purchasing Rs. 465 fertilisers from the depots and sub-depots. The TN Agro Industries Corporation states that it expects to sell 32,000 tonnes of fertilisers as well as Rs. 391 lakh of spares and implements, 165 tractors and 438 power tillers to the farmers. At Pochampalli it is proposed to process 10,000 tonnes of sunflower oil to sell 4500 tonnes of sunola and 2400 tonnes of sunflower deoiled cake. The state government states that it plans to extend the integrated programme of rice development (a union sponsored scheme) now being implemented in all 14 districts except the Nilgiris and Madras and for this the Union government has been requested.

Research results

Of the 28 research reports recorded in June, a group of 4 are of special interest to farmers in the state. First, there are 5 reports of interest to sugarcane farmers: from SRS Cuddalore and RRS, Vridachalam the selection criteria for cane seeds for maintaining optimum population in sugarcane cultivation is set forth: from the agricultural research station, Sarkeshwar, the means of combating ratoon chlorosis which causes heavy loss in both cane yield and juice quality mainly by treating iron deficiency with ferrous sulphate compounds: the sugarcane research station in Cuddalore shows how sugarcane can be grown in saline soils by both reclaiming the soils using good irrigation water and using varieties which are tolerant to salinity and desalinily like CO6304, COC771 and COC85061: the Cuddalore station advises that propping the cane in the 7th month by tying adjoining rows of cane into pairs with trash twist facilitates easy irrigation and field inspection and prevents lodging and the Cuddalore research station provides the sugar cane farmer with cost effective irrigation techniques, which is important as sugarcane is a waterguzzling crop, involving alternate furrow irrigation with or without trash mulching saves 34 per cent of water and is commended to the growing farmer. A second group of reports refers to nitrogen budgeting and use and other agronomic practices: the Kattupakkam research station shows how to counter nitrogen depletion in soils on which fodder crops and cereals are raised through growing fodder legumes, intercropped legumes harvested before cereals and the sloughing off of nodules TNAU station at Paiyur demonstrates that an effective cost saver for paddy farmer is using bio-fertiliser for a rice-pulse relay cropping system where the application of Azolla and organic manure record a high growth yield of 4858kg paddy per hectare : TNAU experiments show that well tilled fields, use of farm yard manure at 20 to 25 tonnes per hectare, keeping the field free of weeds and thinning the crop are important agronomic practices resulting in higher yield of sesamum; the Vemban station shows that the inclusion of soil builders such as pulse in the cropping system can provide nitrogen to the soil in addition to atmospheric nitrogen fixation in their root nodules: the Karaikal college of agriculture shows that the use of good seeds is the foundation for high yields in groundnut cultivation and how the problem of seed dormancy in groundnut can be tackled, that warmer conditions break the dormancy in TMV-1, TMV-10 and AUR-1. The AP Agriculture University also shows how induction of dormancy in groundnut can be effected through treatment with chemicals such as the spraying of Malic hydrazide. A third group of reports refer to the means of countering various pests: the Kunkur Agricultural College demonstrates that the root and stem rot in gingelly can be countered through application of organic amendments like neem cake, maintaining optimum soil moisture through frequent irrigation and seed treatment with fungicide; TNAU shows how ultra violet light trap can be placed in foodgrain godowns as means of attracting and destroying insects: CPCRI, Kasargod reports on an improved package of practices for the arecanut farms, starting with selecting proven mother palms and following some nursery techniques to help develop healthy and vigorous seedlings: TNAU has been experimenting with the means of

controlling the drug store beetle in coriander storage involving fumigating the storage bags and use the coal tar drum bin of 100kg capacity which it has developed for this purpose. Fourth, there are few reports for use by poultry-cattle farmers the lam farm, Guntur has identified the cause of vitamin A deficiency in chicks and advises poultry farmers that chickens which show this deficiency should be fed vitamin supplement and premixes 3 to 5-times with the recommended level in feed or in water, the Embryo Research Centre, Nilgiris advises use of silage that helps pressure green fodder in the flush season that can be fed to cattle in the lean season. The basic requirement for the crop to be ensured is sufficient carbohydrates which enables fermentation : CIRG in Mathura prescribes a sound health programme for goat farming so that kids are not lost at an early age: and the Madras Veterinary college advises on how large litter size in piggery units can be developed through the selection of sows and gilts from large litters, and mating the sows to unrelated healthy boars, whose off-spring also mothered large litters. This counters the high cost per pig when the litter is small.

Plantation crops

Tea output in 1992 is likely to suffer a decline of 12 million kg against the 1991 output of 742 million kg. Between January and April production declined by 19 million kg due to drought conditions. In the first 4 month of 1992 all the tea producing regions witnessed a decline in their output and the overall production stood at 98.54 million kg against 117.99 million kgs in the same period in 1991. With only the Assam crop showing an increase in output of 6.2 million kg, the crop was lower in all other producing areas. Production in Darjeeling, Doogras and Terai was lower by 7 million kg. South India estates were responsible for the major part of the decline due to the severe drought in Kerala and Karnataka. Internal consumption was 525 million kg in 1991 it is expected to be 540 million kg in 1992. The same trends can be found in world tea output with 1991 recording a high output - at 48 million kg more than in 1990 but a lower crop in 1992 in all tea producing countries. One of the questions that is now widely debated in the tea industry is whether the official policy of decontrol applies to it. The only move towards deregulation was the setting up of 2 committees on coordination and on tea prices which did not meet and had no effect on the industry. The controls are through statutes, the Tea Act, the Coffee Act, the Rubber Act which control the industry and not develop it, if the aim is to increase production to the point where it can meet both domestic and export demand, the question arises as to whether all controls should be abolished and incentives provided to augment production. These considerations apply to all sectors of the plantation industry. *Coffee* production is totally controlled from the marketing point of view. The coffee Act requires that once the crop is harvested, it has to be surrendered to the coffee board which is responsible for marketing and the grower is not only far away from being able to see what he has produced and has to accept whatever price is given to him by the Board. Hence this question to grant freedom to producers to market their coffee has been under study and discussion (see Vol XXI p19) and the move is not total decontrol of the 50 year old procedure but a gradual transformation, from "compulsory pooling" to "optional pooling". Further the 1 lakh tonnes exports have no longer the Soviet market and so there has to be a revised approach to find overseas markets and then the individual producers should be given the option to seek out such outlets, if he desires it. This is especially so if the ambitious annual target of 120,000 tonnes of exports are to be achieved. *Rubber* production in 1992-93 is expected to be 4.07 lakh tonnes from 3.67 lakh tonnes in the previous year. The target for 2000 is 6.75 lakh tonnes, which if attained will make the country self sufficient in natural rubber. The rubber price has shot up to Rs. 27.20 a tonne at Kottayam against the bench mark price of Rs. 21.450 fixed by government. STC has not acted when price declined during the busy season but in the busy season, March-May; i) has been instructed to raise the release price to Rs. 26,500 per tonne from July 1992 and 27,000 from August, which has already been surpassed as noted alone. This not only hits the rubber user industry, it also has no relation to the international rubber price which is Rs. 19,000 and so export of natural rubber is cut. What is being exported is not domestically grown natural rubber, but imported rubber synthetics as noted in the last issue. It is not enough to go on raising the price of rubber to placate the rubber growers, there should also be focus on improving productivity and reducing costs. This is all the more necessary, as the upcoming synthetic rubber plants, will be more productive than natural rubber variety - it is said that 1 tonne of synthetic will replace 2 tonnes of the natural variety. This will also help to keep the price of natural rubber down and help the 5000 rubber consumers who employ 3 lakh workers and who can earn Rs. 700 crores per annum in foreign exchange.

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III. Industrial Development in Tamil Nadu

June recorded the usual plus and minuses in the industrial development of the state. June also makes one year since the present government came to power with rather impressive statements about raising the industrial profile of the state to first rank. In accordance with these pledges the government settled the textile workers' strike (See Vol XXII p23), assisted the reopening of Standard Motors (See Vol XXI p554) and B & C Mills which had been closed for one year (See Vol XXII p.02) and got the union government clear.nce for the large Aromatic project as reported in the last issue of the Bulletin. According to a government review, 1990-91 saw an increase of 9.29 per cent in investment compared to 1989-90 that is to Rs. 2046.25 crores from Rs. 1874.11 crore - an increase of Rs. 174.12 crores. Of the 10 major areas of investment, the study reports that development finan.e stood first at Rs. 106.47 crores out of Rs. 174.12 crores followed by passenger transport (Rs.30.05 crores) and manufacturing (Rs. 22.57 crores). Agriculture and allied activities recorded in 1990-91 a negative growth, the investment declining from Rs 30.77 crore in 1989-90 to Rs. 29.31 crores in 1990-91 which the review attributes to the repayment of loans obtained from banks and financial institutions. But the basic problem hampering industrialisation in the state - (as compared to that of Maharashtra and Gujarat) - is the continuing bureaucratic and governmental controls over the sector which makes many private sector institutions and entrepreneurs hesitant to invest in Tamil Nadu and in some cases actually turn to AP or Karnataka where these obstacles do not exist. In other words, it seems as if the steam is going out of the industrial momentum which the government initially accorded to the state.

In the month of June, the positive industrial developments in the state include: First, *Ashok Leyland*, despite being in the grip of recession leading it to cut production of both vehicle and engines by one third, involving a lay off of its work force and on the basis of the informal understanding with its trade unions the weekly working days reduced to fare and wages paid for 5 days in the week, reports two important steps forward: its turnover for 1990-91 crossed Rs. 1000 crores which was an increase of 11.7 per cent over that of the previous year, and it is planning an expansion, pumping a massive outlay of Rs. 500 crores in Hosur to produce diesel engines, Rs. 100 crores to modernise its Ennore facilities, Rs.30 crores to expand thecapacity of Ennore Foundries for castings, and Rs. 80 crore to modernise its production facilities in Maharashtra and Rajasthan. It is also floating a new venture, Ashok Leyland Exports Ltd, to boost the export of vehicles and engines and another firm Ashok Leyland Information and Technology Ltd to take on project oriented software export in the technology park in Bangalore in a tie up with US and Europe firms. *Second*, the *Small Industries Service Institute* is organising 2 training programmes on marketing management and market research for identifying opportunities for starting and operating small scale industries. The programme for graduate and diploma holders will train them in entrepreneurship The programmes are starting on July 6 and July 20. *Third*, *TIDCO* announces that it plans to set up a project for the manufacture of intravicular lens, with an investment of Rs. 30 crores, another project for the manufacture of medium density boards with an investment of Rs. 65 crores. These projects will have tie up with foreign firms who have the technology. It states that it is exploring a project for the manufacture of audio and video cassettes. It has entered into agreement with a Madras city enterprise for the manufacture of aluminium rolled products with an investment of Rs. 150 crores. With IIC, a fruit processing plant is also being set up for Rs. 30 crores. All these projects are in the Associate sector where TIDCO's equity stakes will be restricted to 11 per cent. *Fourth, fifteen private sector* firms have applied for wind farms. These firms range from Rajapalayam Mills which wants to set up a 2 × 250 kw windmill. Vijayalakshmi Mills, Coimbatore which has applied for 1 × 250 KW to Gulf Refineries, Tuticorin which plan a 1 × 250 KWH and Sayeed Beedi company, Tirunelveli which also wants a 1 × 250 KWH plant. The larger plants proposed are by the Tamil Nadu Petro product for 20 MW, followed by Dalmia Cements and Madras Cements at 4MW each. All the 15 projects will together generate 50 MW and calls for Rs. 140 crore investment. *Fifth, Tiruppur* which produces a 90 per cent of India's Cotton knitted garments valued at over Rs. 1200 crores; through its exporters association, in cooperation with the state, plans to provide water for the entire area, improve the existing infrastructure and control pollution for which Rs. 150 crore is to be contributed. The overall project will cost Rs. 346 crores covering the Tiruppur planning area. *Sixth, SPIC* in cooperation with 'Pioneer' an American seed company, is planning to produce hybrid seed varieties as a means of increasing the food products of the country. It is already producing hybrid tomato, sunflower and cotton seeds and its tissue culture lab in Coimbatore will be producing tissue culture plants from October and market them from December 1992. *Seventh, a mini refinery plant* of the Madras Refineries at Nagapattinam was inaugurated in June, processing crude from the cauvery basin. This will save the cauvery crude being transported to Madras for refining. *Eighth, the Indian Seamless Steels and Alloys* promoted by ISMT is now going public as from July 15 for Rs. 40.98 crores from an issue of 20.40 shares. This issue will partly finance its Rs. 155 crores project which is (unfortunately) being established in Pune for manufacture of 1.50 lakh tpa of high quality carbon, alloy and special steel rounds. *Ninth, Kothari Industrial Corporation* has floated a joint venture with R.J. Brown company, Singapore to take up contracts in the field of engineering, soil drilling and offsite support facilities both inside and outside the country. *Tenth, four private corporate sector* companies report a very good performance in production, sales and dividends during 1991-92. The joint sector Tamil Nadu Petro Products with sales turnover increase of Rs. 50 crores to Rs. 279.75 crores in 1991-92, records a gross profit of Rs. 67.25 crores and has declared for the year a dividend of 15 per cent. Kothari Sugars and Chemicals reports that its turnover increases was Rs. 50 crores, its profit Rs. 958.26 crores and its dividend for the year 1991-92 20 per cent. Sundaram Fasteners reports that its turnover in 1991-92 increased by 27 per cent to Rs. 137 crores, profit to Rs. 27.74 crores and its accumulated losses of Rs. 2.31 crores is to be adjusted against its profit. Madura Coats reports that its gross sales crossed Rs. 500 crores, its profits Rs. 88.44 crores and the dividend 33 per cent for 1991-92. *Eleventh,* the revival of *Seshasayee Paper and Boards,* which pioneered with Bagassee as raw material and various other raw materials for paper production, resulted

in 1983 is a small profit of Rs. 73.55 lakhs followed by years of low profits and production during which time it pioneered the use of bagassee for paper marketing, newsprint and has been a consultant for the setting up of TN Newsprint and Paper, has set up the Southern Paper Mills in Tanzania and plans a modernisation to raise its capacity to 10,000 tonnes.

On the negative side in June: *first, Sugar Mills* in the state face the serious problem if accumulation of molasses, which in the absence of 70,000 tonnes of its exports out of a total of 6.08 lakh tonnes, leading to their decomposition and rotting. They are adding to pollution as the storage tanks are overflowing and the excess molasses is being let into Kutcha pits and drains. This will also lead to the loss of foreign exchange to the tune of $3.15 millions. *Second, the state government's new policy on granite* as reported in the last issue of the Bulletin has evoked sharp criticisms from industry on two counts-the stopping of fresh leases for quarrying and the fixing of the minimum export price for this minor mineral and on which the state government has no experience. Why not let the market price for granite operate? The industry states that the imposition of a minimum price and the subsequent collection of the cess on exports is to make up for the loss the government suffers trom the import duty on granite by the union government's policy will also make it difficult for export oriented units to procure the granite they need. *Third, the Tamil Nadu Electricity Board* has been deprived of a contract for the Mining and Allied Machinery on which TNEB went through the required procedures and submitted the lowest bid. The funding agency ADB, insisted on the project being given to the US agency, Elecon, despite its bid being higher on some flimsy technical grounds. The trade union regard this as a blatant case of arm twisting by the foreign funding agency.

In June, the state's record in industrialisation is positive, despite the few negative features. The longer term assessment, however is not so clear and is worrying.

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IV. Education, Science and Health

Educational reforms

In June, the Ministry of Human Resource Development set up 23 taskforce to revise the Programme of Action approved in May 1986 in light of the revised National Policy on Education approved by Parliament at its last session and reported in the last issue. The reports of the task forces are to be made to the ministry by July 8 so that the revised Programme of Action can be presented to Parliament at its monsoon session starting on July 8, 1992. In the state, the major issue in the school field was the finding of the state government that the CBSE valuation was this year too generous. In CBSE the percentage of students who scored 190 and above out of 200 in Mathematics, physics, chemistry and biology was 27, 48, 48 and 54 whereas in the states higher secondary course the figures were 28, 12, 11 and 7. Hence taking into account the number of students who wrote the examination in the 2 streams; the state government issued orders that 2 per cent of seats in professional and arts and science colleges should be set apart for CBSE and ISC students and 98 per cent for the Higher Secondary Schools students in the state. The government order has been challenged by the parents of the CBSE students and the High Court has granted a stay order. The government has gone on appeal to vacate the stay order. Students of the state higher secondary schools are demonstrating in the state to support the GO and against the high court stay order. Another problem is that following the Allahabad high court judgement on minority institutions, the state government issued an order that minority institutions should admit only 50 per cent of students belonging to their community, the other 50 per cent is to be filled on the basis of merit. The minority community institution have protested against this order and in any case are not following it for this year as the order came after they had completed their admissions. There is also a problem with the Madras Christian College which has not included the names of the 3 teachers who were temporarily put back on the staff because the agreement states that this temporary measure will expire when the enquiry committee makes it report, which was done last month. The medical and engineering colleges are increasing their fees by double or treble the amount. This is part of the demand that the government subsidy should be reduced both on equity and economy grounds. Fees form a small part of the total cost of higher education - of a university or a college - and by itself cannot reduce the subsidy. But it is not only a contribution, it is also an important reminder to students and parents that they should make a contribution to their wards higher education. The government has reduced the UGC grant by Rs 5 crores which is also forcing attention, on the issue of the subsidy to higher education. UGC has tried to reduce its grant to the central universities which has been resisted and had to be withdrawn. But the need to reduce the state's subsidy is there and all means to achieve it by raising fees, improving teachers student ratio and generally improving the efficiency of higher education institution should be explored and given effect to.

Adult education

The success of the techniques of Total Literacy Programme (adopted from the Kerala model) under which whole districts are being made literate, starting with mobilisation compaigns - Jathas and then going on to Arivoli Iyakkam - literacy learning by 3 stages for which 3 texts have been programmed and adapted in all states, are being widely reported and assessed by news papers. In Tamil Nadu, Pudukottai is the first district to attain the 100 per cent literacy status and will be so declared in a few days. The National Institute of Adult Education (NIAE) has now come out with a weekly broad sheet for neo literate which is being used in the fully literate districts of Burdwar and Midnapore in West Bengal and Nellore and Tirupathi in AP and its use is being researched in 5 districts - Panipet (Haryana), Durg (MP), Burdwan (West Bengal), Chittoor (AP) and Kamarajar (Tamil Nadu), along with its role is a neo literates' newspaper and in quenching the neo literates thirst for news and information. Work is on now to establish the broadsheets independently of agreement of the National Literacy Mission and the post literacy programme has been phased out. News papers and the ministry of Information and Broadcasting are being asked to take on this challenging task.

Health

The state government reports that 48 lakh people have been given health check up in the 5 months since the medicare scheme was launched by it. Among those examined at the 8468 camps, 6.7 lakhs were found to suffer from diseases of respiratory and cardio vascular system, 4.4 lakh persons had various skin diseases, and problems in gastro intestinal tract in 4.7 lakhs. These results will help set the right priority in the states health care delivery system and the changes needed in drug distribution to primary health centre and taluk hospitals. Nutritional disorders were seen in 3 2 lakh cases, with 2 6 lakhs being aneamic, 3.4 lakh had eye diseases including cataract. Among those examined, alcoholic addicts, were 1114, among adults 1740. Most of the 2.27 lakh persons with traumatic orthopaedic deformities were unaware that their problems could be surgically corrected. Goitre, due to iodine deficiency was seen in 4580 persons who will be treated in the goitre control programme soon to be launched. The health camps are to be supplemented by health extension days in the blocks every week. Thus the emphasis is now on health and the prevention and educational aspects of medicine.

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V. Employment and Labour Relations

The Rural Development Programme in the VIII Plan has been restructured to emphasise employment generation creation of durable assets and strengthen rates of income generating capacity of the people. The Small Farmers Agri Business Consortium (see Vol XXII pp191 & 192) is developing plans and strategies under a programme designed to achieve full employment through diversification and commercialisation of agriculture and allied activities. The programme will contribute to the generation of full employment, particularly in meeting the development needs of women who constitute the majority of the agriculturist workforce. The project is to be aided by UNDP. The full employment potential of the road transport system needs to be fully investigated and understood. Every bus employs 3 persons - driver, cleaner, and conductor - every truck employs 5 persons and to these directly employed should be added those indirectly employed in hotels, spare parts stores, petrol pumps and mechanics. Given this large employment potential of road transport, the deregulation policy and the large mass of unemployed can be controlled through training for self employment and so there is need for training programmes and institutes for drivers on rudiments of engineering, safety, skills upgradation, elements of engineering, maintenance and good house keep and classes on human relations, security and first aid.

There is need in the VIII Plan for allocation to be given to transport on these grounds to meet the growing problems of underemployment. Assocham calls attention to the urgent need for substantial changes in the country's labour laws, particularly Industrial Disputes Act and Trade Unions Act in line with the new economic policies. There is need for a clear sound policy to tackle the problem of displaced workers, caused by industrial restructuring in the context of economic reforms. It also wants the freedom of entry now permitted to be matched by freedom of exit. It recommends a moratorium on strikes, lokeouts and go slow for 5 years. The last two recommendations will need to be discussed widely with trade unions and labour groups, meanwhile the first suggested for a policy on displaced workers can be acted upon without delay - in consultation with trade unions.

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VI. Other Items

Interdisciplinary workshop

The annual interdisciplinary workshop organised by MIDS with the assistance of ICSSR. was held in the first week of June in the Mysore univarsity. The subect was Education and Human Resource Development. It was attended by 42 economics, sociologists, and educators from all the universities in the South. The statement on the theme of the workshop appears in this issue.

IIC

The monthly panel discussion of the Economic Affairs group in the India International Centre was held at the end of June on the United Nations Conference on Environment and Development at Rio de Janerio in the first 10 days of the month. Four of the participants at Rio presented the main issues faced by Rio. It was the most widely attended intergovernmental general conference whose results have been earlier reported in the issue. Along side of the conference was a huge NGO forum which brought together over a 1000 NGOs from all over the world who not only discussed more freely, more fully the issues facing the environment but also made desions to follow up the forum with particular action programmes.

TNSC and ST

The Executive Committee of the Tamil Nadu State Council of Science & Technology met at the end of June. Its most important busines was to approve an amendmant to the objectives of the council under which the popularisation of science becomes one of the objectives of the council. Actually the council has been conducting evers year a large and growing programme of popularisation of science but it was the last annual meeting of the council which pointed to the lacuna in the objectives. There will be a special meeting of the council to consider and approve the amendment in July end or at the start of August The committee also endorsed the allo-

cations made to the ongoing projects on the basis of the reports of the project leader and in some cases by the assessment committees. It also approved a programme of assistance to young scientists to attend International Scientific conferences and also number of seminars and symposium.

MANAR

There was a meeting of the Madras committee of the Mass Action for National Regeneration at the end of June. Its first item was to condole the death of an active number of the programme, Dr. Richard Masilamani, the Vice Chancellor of the Veterinary and Animal Science University Madras. The chairman Dr Anandakrishnan, Dr. Jayagopal, Dr. (Mrs) Rajammal Devadoss and the editor of the Bulletin spoke about the invaluable human qualities of Dr. Masilamani and his contribution to adult education and literacy. using the Veterinary and animal science speciality. The meeting stood in silence to mourn his death and that of his wife. The disruption of the literacy programme this summer in all universities and colleges because of the UGC's change of policy on financing the programme was noted, with the exception of the Avinashilingam university. It was decided that Avinashilingam Anna Gandhigram should maintain and conduct their literacy programmes. As for the other universities and colleges, the new UGC guidelines on the literacy programme was discussed and was approved with some changes for application by the universities/colleges in Tamil Nadu. On this basis, the 5 programmes already sent to UGC by the chairman recommended for approval and the others were invited to formulate their programmes to be sent to UGC by the chairman for funding.

July Development Seminar

Tamil Nadu - An Economic Appraisal 1990, was the subject of the paper for the July seminar which together with a summary of the discussion on the paper at the seminar appears as the first article.

Second Article

A note on some comments on conditionalities appears as the second article.

Statement of the Workshop

The statement issued by the Mysore Workshop appears as the third article.

Book Review

A review of Gilbert Etiennie's : Asian Crucible by Padmini Swaminathan appears in the book review section.

M I D S News

Dr. C. T. Kurien, Emeritus Professor of our Institute has been offered the National Fellowship for two years by the ICSSR.

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Dr. Padmini Swaminathan attended two workshops :

(a) Bangalore (July 8th to 10th) on "Gender Training for Men and Women in NGOs : Issues and Strategies" organised by INITIATIVES : Women and Development, Madras.

(b) Madurai : organised by Women's Forum and conducted a seminar on 'Women and Work' (July17-19, 1992).

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Dr. Nasir Tyabji, attended the *Consultation on the non-Farm Sector* held in Madras on July 29; 1992, and chaired the group discussion on Policy Issues. Drs. K. Nagaraj and D. Jayaraj participated in the group discussion.

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Dr. M. Thangaraj

(1) attended "Problem solving Workshop" at ICRISAT, Hyderabad between 23rd July and 4th August, 1992.

(2) spoke on New Economic Policy : "The Problems and Prospects ahead" on 11th July, 1992 at Dyana Ashram, Madras. This seminar was organised by Society for Rural Education and Development, Arakkonam.

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Dr Paul P Appasamy gave a lecture on "Environment and Development" at Dept. of Economics, Annamalai University on August 8, 1992.

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A group of 23 Summer Programme Canadian University students visited our Institute under the sponsorship of Indo Canadian Sastry Institute on 3rd August, 1992. Dr. C. T. Kurien gave an overview and then the visitors interacted with our faculty and scholars.

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Dr. Paul Seabright, Faculty of Economics and Politics, University of Cambridge presented a seminar on "Reasons for the Success and Failure of Co-operative Societies" on 12th August, 1992 at the Institute.

July Development Seminar

Tamil Nadu-An Economic Appraisal 1990

by

Dr. Malcolm S. Adiseshiah
Chairman & Hony. Fellow
Madras Institute of Development Studies

Prolegomena

The document, Tamil Nadu-an Economic Appraisal-1990, was sent to the Institute on May 14, as it had then been just brought out, as the Director of the Evaluation and Applied Research Department in his forwarding letter states.

The major problems presented by the document is the limited sources available as a means of checking the data presented. In the case of the parallel all India publication, the Economic Survey, there are other sources like the Annual Report of the Reserve Bank of India, and the reports on Currency and Finance of RBI, Annual Reports of the IDBI, ICICI, the NSS Surveys, the Annual Reports of the Union Ministries, which are available to supplement, check and fill in the report of the Annual Economic Survey. In the case of the Tamil Nadu Economic Appraisal there are no such supplementary materials available from the state's financial Institutions, or Departments of government, including the Directorate of Statistics. There are many tables in Part II of the Appraisal Document which refer to the Director of Statistics as the source. Similarly the State Sectors reports of NSS Surveys, and the Annual Survey of Industries are referred to as source material. These could be published atleast in ronoed form and made available to researchers and the government departments. In this connection, some official data is available in the Departmental demands, reports and notes presented to the legislature in the budget session which though ad hoc and discontinuous, bring the data a little nearer the time when the appraisal document is being discussed. This source has been used in this note. There is also reference to the data presented by the Centre for Monitoring the Indian Economy (CMIE) as the source material for some of the tables. This should not be placed on all fours with the data provided by NSS, ASI, TNEB, Agricultural Census, Departments or Director of Statistics, as the CMIE data, as itself, points out, CMIE's collation of materials from many different sources such as newspapers, journals, press releases as well as official publications. It should therefore be shown separately.

There is also the continuing problem of the Appraisal document being dated. Its main data-tables and analysis of them are nearly 2 years prior to the publication of the document. Most tables stop at 1989-90 and the authorisation and full annual data analysed in the document refers to 1989-90. This 2 year time delay could be reduced by atleast six months, if the Appraisal document is circulated in a ronoed form on the date on which it is reported as ready, with foreword signed by the Director, namely, 27 September 1991. The problem here is the audience for which this document is intended. If it is meant for the legislators at the time when they review, discuss and approve the following year's budget, if it is meant for the Departments and the State Planning Commission to programme their plans and programmes for the following year on the basis of the record of the past year, if it is meant for the union Planning Commission, which despite all its claims and statements about decentralised planning still continues to review the state's annual Plan, sector, by sector, then this over 2 years delay is an obstacle for the above purposes. Even a ronoed document would be of help.

It seems as if this question which was discussed in 1990 in the State Planning Commission, which recommended that atleast a summary should be made available of the major issues emanating from the past year to be taken into consideration in planning the programme and budget for the following year, seems to have had some influence on this Appraisal document. Chapter I, State of the Economy, of the Appraisal document sets forth all issues of the past year succinctly and systematically. This chapter could be brought out and circulated to the legislators, departments of government and the State Planning Commission, as a means of helping in discharging their tasks with some knowledge and foresight. Infact the chapter I of the document this year has a fascinating section on the Seventh Plan and the emerging issues which will not have to be repeated for the next 4 years, that is till the VIII Plan is completed, and to that extent will make the task of drafting the future chapters I less burdensome.

Again following the discussion of past Appraisal documents in the Institute (which the Director of Government's Evaluation and Applied Research Departments has attended regularly and participated in the discussion and in the state planning commission), two innovations have been introduced in Chapter I. First and most welcome in para. 1.3, - Areas of attention, on the basis of past 4 years some issues have been highlighted as demanding special and concentrated attention. They are action to reduce educational drop outs and wastage, means of lowering the birth rate and IMR, providing drinking water to the remaining villages, dealing with some 12 issues arising from and related to agriculture and allied activities (starting with arresting the diversion of farm lands to non farm use, on improving nutritious intake of families by increased production of milk, egg and fish, giving priority to fodder development, poverty, preventing

denundation of forests, modernising irrigation systems and using drip irrigation, and increased emphasis to dry land farming, accelerating industrial growth, involving the private sector in the power sector, recasting PDS and using manpower planning to tackle unemployment. This is a challenging list which can be added to, modified, (for instance the insistence on self sufficiency in food production could be replaced by the need to produce more food and foodgrains. Above all, in place of the past long and arid discussion on the growth rates, the above list calls attention to the major issues which concern the people. This break through which this Appraisal document reports should be welcomed.

The Economy in 1990-91

There is an attempt to reduce the delay in the study of the economy, by starting the chapter with a broad outline of the economy in 1990-91. Even on this, as the data used for this purpose is the official data which is not available definitively for the year, and not at all for the economy as a whole (which might be a positive feature as it obliges attention to be paid to real areas which affected the life of the people in the year 1990-91.

Content of the Appraisal document

The appraisal document covers in varying degrees three periods. A summary survey of the VII plan 1985-1989, a detailed analysis of the development in 1989-90, and a brief forecast kind of reference on the basis of the above years' data of the economy in 1990-91. Hence in this note these 3 separate strands are placed together in a synthetic note and analysis.

Structural Changes

At the national level, the government is engaged in various aspects of structural reform as part of the conditions for the IMF/World Bank loans and as a consequence of the changes in the economy that are being brought about. There is one form of structural change that is taking place both at the union and state levels and in relative contribution of the three sectors-primary, secondary and tertiary to the national income or state income. At the state level, table 2.2 in Part II shows the continuing decline in the growth rate of the contribution of agriculture and allied activities and the primary sector to the state income from 26.31 per cent in the VI Plan to 23.88 per cent in the Seventh Plan. There is a lower decline in the growth/rate of the contribution of industry and the secondary from 32.52 per cent to 30.84 per cent between the two plans. The service/tertiary sectors shows a sizeable increase from 40.67 per cent in the VI Plan to 45.28 per cent in the VII Plan. Within the service sector, the biggest jump has been in public administration which has increased over five times, 3.06 per cent in 1984-85, the terminal year of the VI Plan to 16.04 per cent in 1989-90, the final year of the VII Plan. This structural change, does not make for improved well being of the people, as it involves decreased production of food and other commodities and wasteful increase in non commodity producing administrative services.

Quality of life Indicators

Another important issue which the VII Plan data calls attention is to the improvement or slide back in what has to be called the quality of life as measured by IMR which has declined from 81 per 1000 in 1980 to 68 per 1000 in 1989. During this period also the birth rate has dropped from 24.7 to 23.1 per 1000 persons and the death rate from 9.5 to 8.6, which means that some time after the turn of the century, the state may stabilise its population growth rate. Another element deciding the quality of life is the primary education retention rate and the decline in the adult literacy rates. On the primary school retention, there are conflicting reports. The government reports that in the VII Plan the drop out rate has declined from 22.5 per cent to 21.1 per cent. Research studies and surveys, however, show that the rate is still high at over 35 per cent in rural areas. On the adult literacy front, progress is made: the 1991 census shows that adult illiteracy has declined in the period between 1981 to 1991 from 64 per cent to 54 per cent and with help of voluntary organisation, several districts are aiming at 100 per cent literacy. It is important, however, that these quality of life achievements should not be exaggerated as implied in the claims in the document when it states in para 1.20 that "the government is firmly committed to reaching the goal of Health for all by the turn of the century." This goal will take much longer to be reached.

Another quality of life indicator that is referred to is the improvement in rural water supply position in the state. It reports that in the problem villages the matter of drinking water has fallen from 5732 at the end of the VI Plan to 3676 villages at the end of the VII Plan. But here the reports admit quite frankly that the accuracy of the figure of reducing the problem villages by 40 per cent is limited by: a) the need to cover fully the villages which have only been partly covered in the programme; and b) improving the drinking water supply systems by making it available on a protected/assured basis.

The proposal for the state to build on a systematic basis a Physical Quality of Life Index (PQLI) separately for the rural and urban areas is sound and will throw more light on the appraisal of the state's economy. Only that will have to be over a Plan period and not on an annual basis as the Appraisal document is, because the PQLI requires a minimum 5 years period to register positive or negative changes.

Agriculture

Agriculture performed well at an average of over 3 per cent per annum in the VII Plan, in contrast to the long term trend which depressed the development of the state as noted in the Institute study of the Tamil Nadu Economy[1] and referred to in the review of the State's Economic Appraisal in 1989.[2] And what was significant was against the impressive increase in agricultural production in the fifties which was largely due to extensive cultivation, the VII Plan which marked a decline in cropped area was also marked by an increase in yield rate. However the Appraisal also brings out some unresolved problems faced by agriculture. A first problem is that the agricultural production continued to depend on the quantum and distribution of rainfall, so that the phrase coined in the budget presentation of the thirties that agriculture is a gamble on the monsoons still continues to be true. The major part of the cultivated area is to the extent of 60 per cent of the gross cropped area under dry land farming and so the volume and distribution of rainfall determines production and productivity. Second, while sugarcane, cotton and the

plantation crops did well during the Seventh Plan, the nutritionally important pulses and oil seeds did poorly, pointing to the need for some reordering of the cropping pattern. Third, the Seventh Plan objective of reducing fallows by 10 lakh hectares was not attained and this together with the increasing rate of diversion of cultivable lands to non agricultural use in the VII Plan accounts for the reduction in the extent of cropped land. In this connection the objective of reaching a degree of stabilisation in the cropped area should be pursued. Fourth, with the problem faced with neighbouring Karnataka in regard to the Cauvery and the uncertainty of the flows into the Mettur reservoir which resulted in the Mettur reservoir not being opened for irrigation on the due date - June 12 - except in one year - 1979, during the Sixth and Seventh plan, the need for changing over from the water intensive crop like paddy to less water intensive crops like coconuts, pulses, banana etc. has not yet been explored. Fifth, while the need to increase the quantum of foodgrains particularly through improved rate of yield as Table 7 of Section 3 of the Appraisal shows, where between 1984-85 to 1988-89 Tamil Nadu stands second only below Punjab in the paddy yield rates, the state's objective for the state plan is wrongly stated as "attaining self sufficiency in the production of foodgrains". As long as we have the large mass of people living in poverty, which Table 2.5 of Part II places at 32.80 per cent of the people at 176.74 lakh in 1987-88 (but which is much larger according to the World Bank Study and MIDS study) wherein the poverty percentage varies between 40.43 to 50.2 and the absolute numbers from 2.01 lakh to 552 lakhs, self sufficiency should mean access to food for all these people. There is a detailed assessment of the agricultural performances in 1989-90 for which full data has been assembled. As the last year of the VII Plan, 1989-90 as noted was a good monsoon year, with South West monsoon arriving on time, and being plentiful and with the rains making up for the delay and deficiency of the North East monsoon. During the year there was increased HYV coverage, improved fertiliser application and lower incidence of pests and smooth flow of water for irrigation. The result was a rather sharp deviation (fall) in area under the foodgrains production from the target (but an increase over that of the previous year). The area and yield rate, for paddy, sugarcane, cotton, groundnut are reviewed and noted as satisfactory. Second, certification increased by 28.2 per cent over the previous year with HYV record under millets like that of paddy recording improvement; in fertiliser consumption the state during the year (and the previous 4 years) stood second after Punjab. The crop loans during 1989-90 exceeded the target by 24.10 per cent at Rs. 848·06 crores. The animal husbandry sector performance is disappointing and raises some serious problem. It is disappointing because the increases recorded are marginal" in regard to milk production, though the 1989-90 record of 34.60 lakh tonnes represents an increase of 1.8 lakh tonnes over the provious year, and egg production also increased by 18 crores for the year and fish production increased marginally in 1989-90 by 30 lakh tonnes over the previous year. It also raises serious questions because the per capita availability of milk in 1989-90 was not only stagnant compared to 1988-89, it continued to be 40.5 per cent short over the ICMR requirement; similarly the per capita availability of eggs was both stagnant and was only 20 per cent of the ICMR requirement - of 44 against the required 183. In the case of fish and fish products there was a serious decline of 5/6 tonnes in the case of inland and marine fish available and 40 per cent decrease in fish production. These serious deficiencies need to be taken into account in structuring the cattle development project and the breeding programme, in refashioning the poultry development programme-of fingerlings and mechanised and non mechanised marine fishing. The report on forestry in the Seventh Plan and in 1989-90 (which is the last year for which data seems to be available) records a discouraging denundation of forest and forest cover both through unplanned industrial use and soil erosion. A disturbing feature is the continuing discrepancy between the data on forest cover reported by the Forest department and the satellite-Remote Sensing-according to which the real forest with 40 per cent tree cover is about half of what is officially reported at 16.6 per cent.

In the forecast for 1990-91, the appraisal document refers to the deficiency of both the south west and north east monsoons which resulted in a sharp reduction of both the gross sown area and the gross irrigated area and how despite this serious obstacle, the government's effective strategy-of water conservation, use of short duration varieties, increased use of appropriate fertilisers, and adoption of various agronomic practices aimed at increasing the production, of the crops - particularly, paddy millets, sugarcane, cotton and groundnuts. The result was that foodgrain production for the year was 76 lakh tonnes being only 5 lakh tonnes short of the year's target, rice production being at 57 lakh tonnes, only 3 lakh tonnes short of the target, and sugarcane is estimated at 24 lakh tonnes, cotton at 5 lakh-both on target and groundnut 1 lakh short of the target at 12 lakh tonnes. This was a good record and needs to be pursued further in future years to decrease our dependence on the rains and increase the cutting edge of human intervention and investment. In animal husbandry, milk production and egg production are estimated to have marginally increased but fish production suffered a serious decline from 4.1 lakh tonnes to 3.7 lakh tonnes. Here the Appraisal document calls attention to the importance of the animal husbandry components having a decisive effect on nutritional standards and calls for a comparative study of the rural-urban effect on the change in these components. The document also refers to the forest cover as being 17.2 per cent in 1989 on the unreliability of which the earlier comment holds, but its recommendation for a controlled and regulated policy of deforestation for industrial purposes and the regeneration of degraded forests should be acted upon. On irrigation in 1990-91, attention is called to the sharp decline in tank irrigation due to a) lack of a scheme of comprehensive renovation of tanks, b) the periodical silting of supply channels, c) foreshore encroachments, and d) unregulated release of water. The warning should be taken seriously that given the Cauvery bottleneck and drying up of tanks, the intensive drawal of groundwater at the present rate is more than what the recharging potential would permit and make possible the infiltration of sea and saline water which is occuring in many places. This calls for a regulated use of ground water on which legislation is needed and the switch over to drip irrigation to ensure efficient use of available water.

Industry

Industrial performance in the VII Plan was unsatisfactory. Over all the Industrial Index was 5.7 per cent compared to 7.2 per cent in the VI Plan. Industrial development in the VIII Plan was held back by the lack of power availability (which will be examined in the next section), the private industry still in the search for an expanding investment base, and the development of dialogue and understanding with the government, the need for government to improve the physical infrastructure needed by large and medium industries, the need for an attractive incentive package speedily administered to benefit the small entrepreneurs, ensuring improved performance of the state production sector undertakings and increasing union government investments in the state. There is a reference in the document to the government's providing capital subsidy to large and mega industries, extending and liberalising the sales tax waiver and tax holiday schemes, inviting the private sector to take up power generation, improving the viability of state's enterprises, strengthening and expanding industrial estates and growth complexes and securing early clearance by the union government of projects. It is too early to expect the enterpreneurs to respond to the package which has been further elaborated and emphasised in the budget session for the 1992-93 budget. One question that needs investigation is whether there could be a reduction, if not abolition, of various controls and clearance by inmumerable departments of government which discourages the entrepreneur The single window for such clearance has been repeatedly promised but it still has to be implemented. More than all other items to the package this reduction of controls and single window quick clearance is what industry wants. In this connection the recent order that all projects above Rs. 1 crore must be cleared by the minister is a move in the opposite direction.

Turning to 1989-90, industrial growth in 1990 (January-December) is reported at 5 1 per cent compared to 1.2 per cent in 1989. One positive factor making this possible was the improved power position in 1989-90. While electricity performed well during the year, manufacturing recorded only modest growth from 2.4 per cent in 1989 to 2.6 per cent in 1990 as noted in Table 5 of section 6 of the document. The industrial groups which did poorly in both 1989 and 1990 were machines, machine tools and parts and other manufacturing industries particularly railway coaches and sugar. The Annual Survey of Industries which comes out with a 3 years time lag, but on which the ASI at the state level, makes available data for the one full year in advance shows in 1987-88 there were 13,971 factories with Rs. 4,92,893 lakhs fixed capital and Rs. 2,20,422 lakhs net value added and 3,14,808 employees. This table when translated in 6 structural ratios shows, Tamil Nadu industry becoming more capital intensive at Rs. 0.85 lakhs per employer in 1987-88 over Rs. 0 42 lakh per employee in 1986-87 and productive capital also increasing from Rs. 0.59 lakhs to Rs. 0.77 lakhs per employee. In the textile field, the mill sector continues to lose ground (as the handloom sector also does) vis a vis the power loom sector which is responsible in 1989-90 for more than 50 per cent of total cloth production. Their numbers increase year after year, being 1.83 lakh in March 1990 against 1.78 lakh in March 1989. The Appraisal document highlights two important industrial issues in the state. One is the growing problem of industrial sickness both among the large and medium industries (non SSI industries) and small (SSI) industries. There were 112 large and medium industries which RBI classifies as sick in which a credit of Rs. 229.92 crores were locked up. In addition there were 48 units which had suffered 50 per cent erosion of their net worth. The leading groups of sick industries are engineering (25 with Rs. 53.20 crores credit this year), textiles (Rs. 23 with Rs. 50.51 crores credit dues) and chemicals (15 units with Rs 15.93 crores credit tie up. With regard to the small scale sector the number of sick units has increased from 30,942 in 1987 to 31,245 in 1988 the credit locked up increasing from Rs. 193.45 lakhs to 201.92 crores. The analysis and causes for sickness are the same as those given in past years. The remedying that is advocated is t refer those units to BIFR. But BIFR has shown itself to be a toothless agent and unless it is vested with power a) to investigate these defaulting firms with help of CBI and b) given powers to close units and extract from the managements the funds they raise from the public and shareholders that have been misappropriated, referring these case to BIFR will be a waste of time. The other important problem is set forth in table 30 of this section, on the return on the state investment of Rs. 1612.15 crores in 1988-89, which was an 8 per cent increase over the previous year. The return in 1988-89 on this large investment was minus Rs. 87.53 lakhs which was a 5.4 per cent increased loss over the previous year. What is most disturbing is that in 7 out of the 10 groups in which the state investment has been made, net losses are recorded at an increasing rate in 3 groups with agriculture joining the group of loss making units. The moral of, this table is clear-that the government should get out of the business of running those enterprises in which it has no expertise and leave them to be run by those who have the expertise, the private sector managers and enterpreneurs. The problem faced in government getting out of this loss accumulating business is that the number of empioyees in them is large at 1,38,767 and is increasing (from 1,33,471 in the previous year 1987-88). This is where an exit policy is needed and if the union government is holding back on it for non technical reasons, the state government should negotiate with the Trade Unions of the concerned undertakings in order to arrive at an arrangement for pulling out of these enterprises and transferring them to those who could run them, including the workers. The Appraisal Document reports that the industrial performance in 1990 had improved recording a growth of 5.1 per cent against 1.2 per cent in 1989. It also reports that during the first four months January-April, 1991 the improved industrial performance continued at 4.5 per cent, so that for 1990-91 industrial growth was 4.9 per cent. In particular it reports that SSI did well in 1990-91 with the total number of profit making units increasing from 1.14 lakh units at the end of March 1990 to 1.27 lakhs at March 1991, with the value of investment increasing from Rs. 2045.84 crores to Rs. 2289.84 crores, the value of production increasing from Rs. 6287.19 crores to Rs. 6996.11 crores. It is assumed, however, that the two problems to which attention was called in relation to the industrial performance in 1990-91 are still present and demand action.

Power

Turning to power, the VII Plan record was a mixed one, an increase in annual installed capacity from 4.3 per cent in the VI Plan to 10.4 per cent in the VII

Plan, the per capita consumption from 1.5 per cent to 7.6 per cent between the 2 plan periods. In generation there were during the plan some problems; in the supply being short of continuously increasing demand; in hydel power potential being limited to mini hydel plants which have not been able to counter the wide fluctuation in hydel generation caused by fluctuation in the monsoons; in thermal generation, the plants faces continuously a shortage in coal supply, the coal stocks in some plants declining to less than a week's requirement; atomic power at Kalpakkam is still in the starting stages and so is subject to constant interruption due to operational problems; wind power is just starting; and solar power is still not cost effective.

In 1989-90 TNEB's installed capacity increased by 350 MW, power consumption increased to 14,120 MU in 1989-90 over 13,639 MUs in 1988-89, with industry consuming over 42 per cent followed by agriculture at 27 per cent. In 1990-91 the document reports increases in gross power availability from 11845 mu in 1989-90 to 20789 MU due to improved TNEB generation. For the year the power deficit is estimated at 871 mu against the total power requirement of 21660 MU, the main sufferer being industry which faced a power cut of 10 to 30 per cent during the year.

Prices

The Seventh Plan period was a time of high inflation with the wholesale price index recording a rise of 9.2 per cent which was more or less the high inflation level in the state during the VI Plan. In 1990 the whole price index rose to 9.8 per cent. Breaking down this price rise by groups, the major pressure on prices come from manufactures (62 per cent), and food and primary articles (36 per cent). Rural consumer prices computed by the CSS monthly abstract of statistics shows a high level of inflation for agricultural labourers and families, but the consumer price index of selected essential items for rural Tamil Nadu for the same period shows a low rate of inflation at 4 per cent. Is this because Tamil Nadu continued to base its index on the year 1970-71, whereas all prices - wholesale and consumers price base to come into line with the all India base (and that of the other state's base), namely 1980-81? When it comes to the important parity index, the document does not attempt to compute the relative parity of the prices paid and prices received by the farmers, because in this case the base year goes back to 1954-55 and is now being revised.

Employment

The Appraisal document provides some useful data on the employment/unemployment/underemployment situation in the state - using material from the 43rd round of NSS which covers the period July 1988, which in some cases presents opposing factors. For instance Table I of the section 8 shows that using both current weekly and current daily status estimates, the number of persons employed per 1000 was higher in the state than in all India.

	Current Weekly status				Current daily status			
	Rural		Urban		Rural		Urban	
	Male	Female	Male	Female	Male	Female	Male	Female
Tamil Nadu	540	362	541	193	533	334	511	178
All India	504	230	492	119	501	207	477	110

On the other hand table 20 shows that Tamil Nadu has the second highest number of unemployed at 13,44,000 next only to Kerala at 18,79,000. Similarly the under employment for both rural and urban males was second highest next to Kerala. The document reports that employment generated in the state during the VII Plan was 1,26,700 which is a steep decline from the VI Plan employment generation of 2,59,100. This decline is attributed to i) reduced employment generation in manufacturing by 2400, ii) a slow down in service sector from 1,50,300 to 87,400. Table 6 & 8 of the sector's summary employment in the public and private sectors show, unlike the previous year, that private sector employment increased faster at 17,200 in 1989-90 than the increase of 5,000 in the public sector. In the private sector the increase in women's employment at an additional 12,200 (71 per cent) and that of manufacturing at 17,900 should be noted. The record of the State's registered or educated Employment continue to be disturbing. The total number of those registered for jobs is 3,02,800 at 31 March 1990, which was an increase of 20,400 over the registrations at 31 March 1989. An equally disturbing feature was that 88 per cent of hose registered are educated. In a further break up of the educated unemployed, it is found that while those with SSLC qualifications declined in the number registered by 28,820, those with graduate qualification shot up by 71,725 in 1989-90 compared to the previous year. This is a reflection on both the low rate of employment openings both of wage/salaries employment and self employment, and irrelevance of our university education curricula and learning. This latter is remediable and instead of wasting time on searching for reasons as to why graduates from Tamil Nadu do poorly in IAS, IFS, IPS examinations, curricula reform at the university level to make its graduates develop aptitudes for self employment to make them employable should be undertaken. In this connection the Appraisal document points out that in the VII Plan the state has been taking steps to generate employment. But these are short term relief measures, it points out, so that what is needed is to restructure agriculture, industry and services so that they are employment generating and opening new areas like horticulture, sericulture, dairying, leather garments, software development for increasing both the volume and area of employment. The role of education is to make its clients - students and teachers - employable.

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Summary of Discussion

Dr. Malcolm S. Adiseshiah in his presentation of the Tamil Nadu Economic Appraisal (1990) mentioned that the document had its continuing drawback of being dated, as reflected in the tables and analysis. An urge was therefore made to circulate a roneod appraisal document. As such the document would not be of much useful to the Legislators, Departments and State Planning Commission. He considered the document to be of greater utility to the researcn scholars and students.

One of the salient features of the document was the areas demarcated as demanding special and concentrated attention viz; reduction in educational dropouts and wastage, means of lowering birth rate and IMR, providing safe drinking water and accelerating industrial growth.

The structural composition of the Tamil Nadu Economy shows a decline in the contribution of the primary sector to the state income from 26.81% in VI Plan to 23.88% in VII Plan. The service/teritiary sector however shows a sizeable increase from 40.67% in VI Plan to 45 28% in VII Plan. Within the service sector is the alarming growth in public administration of 16.04% over a five year period. On the quality of life indicators the birth rate dropped from 24.7 to 23.1 per 1000 persons and death rate from 9.5 to 8.6 during 1989; the IMR index also reflected the same pattern from 81 to 68 per 1000 during the same period.

In the case of primary school retention the government reports that drodout rates have declined from 22. 5% to 22.1% But this according to the author is not in conformity with the studies and surveys conducted by TNSC & ST which put the figures much higher in rural areas.

Agricultural productivity is linked to the quantum and optimum distribution of rainfall. While sugarcane, cotton and plantation crops did quite well during the VII Plan, the nutritionally important crops like pulses and oilseeds did poorly which had implications for the food consumption patterns of the rural poor. Added to this is the uncertainty of water availability from Mettur reservoir and the need to switch over from water intensive crop like paddy to less water intensive crops.

On the question of proportion of the population below the poverty line of 39.80% in 1987-88; the author was not in agreement with the Appraisal document, but added that the World Bank and MIDS studies showed the variations to range between 40.43% to 50.5%. Milk, egg and fish production were also short of ICMR requirements.

The industrial scene too is not very encouraging with the problem of sickness among large and medium industries. There were over 112 sick units with locked up capital to the tune to Rs.230 crores. In respect of unemployment, the number of unemployed and under employed figures for rural and urban males was next only to kerala.

During the discussions that followed the presentation, the need to impart proper training for the legislators in using the documents was emphasized; so that the empirical data could be analysed and articulated in the policy making process.

Another participant mentioned that although the fall in share of agriculture in SDP was part of the development process, it is not so in respect of Tamil Nadu. The reason for the fall in agriculture is due to the fact that there has been no sustained growth in agriculture. However, since the fall in the share of agriculture has not been followed by a fall in the number of people engaged in agriculture, the percapita income in rural areas is still very low.

He also added that instead of using the expression, self sufficiency, it is better to use the phrase 'self reliance'. Since the state has become more dependant on central allocation it would be desirable for the state to be more self reliant on food production. It is however not easy to attain complete self reliance.

The main crop of Tamil Nadu is *Samba* crop which is sown during the North East monsoon and is subject to pest and diseases. Unless a variety is evolved which is resistant to pest and disease, it is not possible to raise the productivity. While this is easy with regard to *Kuruvai* there is a constraint in respect of availability of water.

On the question of "self sufficiency" another participant mentioned that irrespective of surplus or deficit, net inflow of foodgrains from the central pool was indispensable to distribute through the state's Public Distribution System. Central pool allocations have several political dimensions and implications which need to be examined carefully.

Another participant referred to the lack of data pertaining to exports in the industrial production data provided in the Appraisal document, which makes analysis and interpretation of the export contribution of the state more difficult.

On the question of comparative advantage another participant cited the case of some Northern states which export high value "Basmati" rice. He suggested that Tamil Nadu could export such high value commodities and import cheap coarse rice from Thailand, rather than stress self sufficiency in rice production at the state level.

The author while responding to the queries mentioned that referring the sick units to BIFR without any power to investigate the defaulting firms was a sheer waste of time in the absence of an exit policy. He wanted the state to keep its hands off sick units. The author also pointed out the alarming feature of the industrial scene of rising capital intensity and the states desire to have more such units. He also advocated abolition of controls and clearances by different departments, and replacement by a single-window clearance system, rather than the long list of incentives currently provided for industries.

On the question of changing cropping pattern and rotation of crops based on water availability the author felt that individual farmers may not be in a position to take such bold decisions.

The author also provided a clarification with regard to the definition of 'self sufficiency'. In his opinion, self sufficiency means "adequate food for the *consumption* of all the people of the state" rather than self sufficiency in production.

V. JACOB JOHN

Some Comments on Some of the IMF "Conditionalities"*

Prolegomena

At the outset, I wish to make it clear that I am one of the economists whose position is, that given the all round crisis of the economy - in inflation, in growing unemployment and under employment, in rapidly dwindling foreign reserves, in mounting balance of payments deficit and the prospect of our not meeting the repayment obligations on our foreign debt, in the falling exports and increasing imports, negative industrial growth and declining investments - there was no alternative to resorting to the IMF for a loan. I have studied the other alternative schemes that have been proposed and I find that none was viable to meet the comprehensive internal crisis and the near total international bankruptcy facing the economy. I also acknowledge the right of the lender to lay down condition for the grant of the loan that is being negotiated. Incidentally I regret the IMF and the World Bank use the ugly word, which they have coined for this purpose, called "conditionality", when the term conditions for the loan is proper and adequate.

The conditions attached to IMF loans increases and hardens as the loans increases both in size and its sources. Thus the Reserve Tranche drawal is really withdrawing of a country's reserve deposit with the Fund, and its drawal has no conditions attached to it. The conditions begin with the credit tranches and become heavier under the extended fund facility and the other facilities, which are used to finance the programme of adjustment which set forth the objectives and policies that will have to be followed for the whole period of the loan.

These are set forth in pp7 to 15, including their application to India, in the December issue of the Journal, Banking Finance. Some comments are offered on some of the conditions attached to the IMF loan to India.

Fiscal deficit

One condition set by IMF and accepted and put into effect by the government is the reduction of the fiscal deficit in 1991-92 from 8.7 per cent to 6.5 per cent of GDP, to be continued in 1992-93 through the further reduction from 6.5 per cent to 5 per cent in order to contain inflation and make devaluation effective in reducing the balance of payments deficit. Empirical evidence shows that the fiscal deficit is not related to the inflation rate but to the budget deficit which determines the supply of money and which feeds inflation. Using data from IMF's International Finance Statistics for 1983-1990, it is found that there is no relation between the rate of inflation and the fiscal deficit as a percentage of GDP in several countries. Yugoslavia's fiscal deficit in this period was almost nil at 0.05 per cent of GDP while its rate of inflation averages a high 99.25 per cent. Ghana's fiscal deficit was a mere 0.96 per cent, but its inflation was 48.27 per cent, Paraguay's deficit was 0.41 per cent of GDP while its inflation was 27.56 per cent, Venezuela's fiscal deficit averaged 1.27 per cent of GDP, but its inflation rate was 24.13, and so on. On the other hand, rate of inflation is related to the per cent increase in reserve money generated by the budget deficit. Taking the above countries - in Yugoslavia, budget deficit augmented reserve money creation during the period by 251.99 per cent, Ghana by 39.49 per cent, Paraguay by 28.94 per cent, Venezeula by 23. 49 per cent, while countries with single deficit inflation like Belgium at 4.14 per cent recorded increase in reserve money creation of 1.20 per cent, Ireland 5.60 per cent and 6.82 per cent, India 7.66 per cent and 17.81 per cent and Italy 8.70 per cent and 12.29 per cent. This IMF condition of emphasising the fiscal deficit rather the budget deficit is derived from the experience and applies to countries like the US and not to countries like India.

There is also atleast 2 problems in implementation of the reduction effected in the fiscal deficit in 1991-92. Unlike the hope expressed in the journal article that "the envisaged reduction in deficit was proposed to be effected by rationalising the non plan expenditures and resorting to additional taxation", the reduction has been attained by squeezing capital outlays in the Plan, which resulted in the 1991-92 Plan being cut by 7 per cent and the Plan for 1992-93 being held constant in real terms. The proposed outlay of the 1992-93 Plan is Rs. 48,407 crores which is a nominal 12 per cent increase over the 1992-92 Plan outlay, but given the 12 per cent rate of inflation, represents no increase. The second problem is that the outlay on social services, that is the expenditure on poverty alleviation, employment generation, health care, primary education and adult education are either reduced or held constant for 1992-93 to meet the reduction in the fiscal deficit. The budget outlay for primary education, for instance, has been reduced by Rs. 3. 45 crores which means that the goverments commitment to universalise primary education by 2000 AD will not be met. On rural development and social sectors taken together the plan outlay for 1992-93 is Rs. 7738 crores against Rs.7639 crores in 1991-92, which means a sharp reduction in real terms.

Hence two suggestions are made on this condition. One is to get IMF to shift from concentrating on the fiscal deficit on to, the more immediate budgetary deficit which increases the quantum of money supply through the money multiplier process and the income velocity of money. Therefore attention needs to be paid to the budget deficit and its reduction. Second, because of the squeeze on the social services particularly poverty alleviation and employment generation following from the attempt to reduce the fiscal deficit in 1992-93 by 5 per cent, (over and above the reduction to 6.5 per cent in 1991-92), this condition could be renegotiated with the IMF to make the fiscal deficit reduction 5.5

*An article by Dr. Malcolm S. Adiseshiah for the Journal, Banking Finance, Calcutta, March, 1992.

or 5.7 in 1992-93, so that the social sectors allocations need not be so heavily reduced.

Exports and Imports

Another condition for the IMF loan is that in order to improve the balance of payment, exports should be increased, and controls and tariffs on imports should be lessened and abolished. But exports are conditioned by many factors, the most important of which are the price of a country's exports in the world market, the extent of the debt burden and other policies. Unless these are also tackled, exports expansion will not provide growth and development. In several Latin American and African countries, the surge in exports has not pushed their economies into the virtuous circle of higher investment, higher productivity and still higher exports. Mexico increased its exports by an annual average of 23.8 per cent during the 80s, but its economy grew only by 0.5 per cent due to its large international debt. Again Brazil which earned $34.6 billion in 1989, free exports recorded a manufacturing growth that year at 1.5 per cent.

Similarly IMF and the World Bank have made import liberalisation a condition. India is expected in 3 years to remove all import licensing for capital goods and raw materials (except for a small negative list) and to decanalise all items except those that are essential. Import duties have to be rapidly reduced by 50 per cent with a maximum rate of 35 per cent. This would boost exports, and make imports available to export for this purpose. But there are some limitations and warnings that need to be taken into account when administering the policy. First, the debt burden must be reduced in order to boost the country's international trade. India's external debt was $62.5 billion as at 1989, and servicing it at 26.4 per cent of export income acts as a drag on exports. Again UNCTAD in its study of 31 countries for which data were available casts doubts on associating too quickly a liberal imports regime and success in expanding exports. It is found that while some countries with highly protective domestic industry like India, Argentina, Peru & Yogoslavia recorded low rates of export, other countries like Indonesia, Turkey and Venezuela which had the same protective walls did well on exports. There are also cases where countries like Bolivia, Ghana, Jamaica and Uruguay which have dismantled their protective walls on imports but show sluggish exports.

Currency devaluation does not always lead to export growth, as expected by India in its two stage devaluation of the Rupee, and third stage involved in the partial convertibility of the Rupee announced in the 1992-93 budget. The UNCTAD study shows that 11 countries which had a 30 per cent devaluation are not doing well on export growth, on which the low export performance of Argentina, Bolivia, Ghana etc. are cited as examples. Even when exports expand, its benefits may not be widely shared by the people. Against the experience of Hongkong, Singapore, and South Korea where export growth has led to its benefits being widely shared are the cases of Gabon, Kenya and Ghana where export growth have increased inequalities. So OECD suggests that in order for export growth to reduce poverty, the country should export agricultural commodities produced by the small farmers and some manufactured goods like textiles and electronics which are labour intensive. But agricultural exports will be possible only if there is increased agricultural output and this requirles further intensified agriculture, as our land availability is limited. Hence the use and availability of fertilisers where the question of subsidy and retention price is raised, the increase and multiplication of agricultural research on plants and seeds in relation to the ongoing debate on Intellectual Property Rights, the procurement prices for agricultural products, the production frontier for the small and marginal farmer, are all important interrelated questions which come up in connection with the agricultural price policy in the IMF conditions.

Exports level and export profitability are affected by the partial convertibility of the Rupee announced in the budget. It was thought that as under the Ex Im Scrip, exporters could sell only 30 per cent of the export sales at free market rates, and as the partial convertibility double their free market export sales at 60 per cent, making exports more profitable and import more costly there would be a push to exports and some hold back on imports. But it all depends on the import intensity of exports. The higher the intensity, more will there be the area in export profitability and therefore the intensive development of exports. But the latest FICCI study reports that as a result of the partial convertibility, the private corporate sector in 1992-93 will earn $9.7 billion as the 60 per cent of its export earnings against which its imports from the general currency area will be about $11 billion, involving a shortfall of $1.3 billion.

External debt, employment generation and poverty alleviation

Our external debt and its servicing referred to earlier are ignored by the IMF conditions. The burden of amortization including interest payment which amount to 26.4 per cent in 1989 (and now nearing 30 per cent), calls not simply for the reduction of the fiscal deficit, but the running of a surplus in the country's current account. The country has to run a net fiscal surplus which is the excess of its revenue receipts over its current and capital expenditure. Such a surplus will improve the country's balance on current account and improve its debt scenario. This scenario which involves moving from the current fiscal deficit to a fiscal surplus situation will take a long time. What is needed now is an important supplement in some form of partial debt cancellation as was done for Poland and Egypt.

The IMF adjustment programme by raising prices through cutting subsidies, particularly of foodgrains and wage goods generally and reducing the provision for poverty alleviation and employment generation will be making the weaker sections in society worse off. This is the experience of all developing countries which have adopted this kind of adjustment programme of the IMF and World Bank. The IMF and the stabliation cum adjustment programme needs to be supplemented by programme aimed at employment generation and poverty alleviation on which the IMF has nothing to say directly or indirectly in the conditions it sets forth.

Education as a Resource*

Education for what human development or human resource development? Education for whom: for those who can afford to pay or for everybody who wants it? Education by whom: through the State or through private initiative? These were some of the seemingly innocuous questions which provoked considerable discussion and led to the identification of a long agenda for research at a recent Workshop on "Education for Human Development" jointly organised by the Madras Institute of Development Studies and ICSSR at the Institute for Development Studies, Mysore.

The crucial difference in the perspective of education for human resource development (HRD) as opposed to human development (HD) arises from the fact that HRD treats education of the individual in a society as a means to some end - increased productivity, improved technology, and so on, whereas HD considers education as an end in itself, towards the empowerment of individuals as self-governing entities. This distinction is important not so much for semantics, as for prioritising resource allocation for education among competing levels (primary, secondary, higher), types (general, technical), methods (formal, non-formal, distance). There were in all nine papers on various aspects of education as a resource, and as many as 40 participants from different disciplines.

State of Indian Education

Even after four decades of independence, increase in literacy rates is still on the increase. The literacy rates of rural people, especially women, Scheduled Castes and Scheduled Tribes are worse than the population as a whole. While the magnitude of illiteracy itself is enormous, in several states it is more so with literacy rates much worse than the national average. Enrollment of school age (upto 14) children is only 20-30% of the school age population. Even among the so-called literate population, the proportion of people with educational levels better than elementary is very low.

The factors which help or hinder "demand" for education at different levels have to be understood better. There is need for examining why the demand for primary education is still so inadequate, particularly in rural areas, as to make the goal of universalisation of primary education unrealistic. While the education of the mother seems to have a significant effect on child health and the demand for children's education, we do not have adequate knowledge of factors which hinder the demand for, or participation of women in the education process. The need to apply econometric methods for estimating the demand for education at different levels by sex, residential status (rural / urban), level of education and occupation of the parents, and the supply conditions of the educational system such as location, availability and cost of transportation, noon meals and other facilities, and the relevance of the curriculum is emphasised.

The state of higher education is not healthy either. While there has been a quantum jump in the number of higher educational institutions, there has been a decline in quality. This situation has resulted because policy makers have taken the line of least resistance (such as creation of islands of excellence and privatization), rather than revitalising the deteriorating university system.

The result of an explosion in the number of educated individuals entering a virtually stagnant labour market has been a sharp increase in the incidence of unemployment. There has also been a mismatch between the products of higher education and the needs of society. However, this situation has not led the private sector to give direction or support to the educational development of society. Instead, it has passed on the brunt of the burden to the formal state funded education system.

Such a diagnosis of the crisis in Indian education and the suggestions for reforms have been presented by a number of education commissions. But the needed reforms have not taken place because of the lack of political will to treat education as central to societal development. Such a political will can be generated only through the collective voice of the people, and to that extent, on-going programmes such as total literacy campaigns and non-formal education for drop-out children do play a very important role. They are to be considered and conducted not merely as programmes to make the society literate, but to empower the people as individuals aware of their environment, and able to participate in the processes of desirable social change.

However, the State cannot lose sight of its responsibility to equip the society to cope with the increasing demand for higher education - both general and professional - concomitant with the advances in science and technology. But this responsibility is becoming increasingly difficult to discharge supposedly on account of the resource crunch. One point of view is that higher education must not depend on public funds. The argument is that higher education is more specifically to cater to the sectoral needs, the returns are more for the private (individuals / industry) sector than for the society as a whole, and that there is an increasing need to privatize it. Moreover, there is a role for both public and private initiatives. While the former is necessary in the areas such as setting standards, accreditation, etc., the latter may provide *innovative* educational systems. But there cannot be a categorical stance on this issue without proper assessment of the social costs of providing adequate and equitable amount of higher education of good quality.

Such an assessment may lead us to accept strategies such as (a) full - cost recovery (from students or from those who employ them when they graduate) of higher education provided by the state; (b) breaking the monopoly of a few private institutions by allowing more private initiative; and (c) rapidly expanding the

* Report prepared by a group of participants of the Twenty-Second Interdisciplinary Research Methodology Workshop held at Institute for Development Studies, Mysore, from June 3-6, 1992. This was the first of a series of three Workshops on "Human Resource Development".

opportunities for higher education through the distance mode, capitalizing on the vastly improved technologies such as satellite communications. Adoption of such strategies may require a concurrent shift in the policy to support through loans to individual students (based on merit, means criteria and so on). Strategies to effectively implement, administer and monitor the mechanisms of subsidizing a vast number of individuals are also crucial.

Human Resource Development within the Education System

While the key responsibility of the educational sector is to develop the nation's human resources, not much attention is now paid to the systematic development of the human resources in the education sector itself, viz., the teachers and administrators. Till recently training has been used as the only mechanism for developing human resources in the educational system whereas there is a need to consider other mechanisms such as development oriented performance appraisal systems, proper reward structures, appropriate selection procedures, potential development, feedback and conselling, and organisation development. The success in the implementation of these mechanisms is dependent upon the creation of the appropriate organisation culture, since the existing educational administrative systems mostly tend to be regulatory rather than developmental.

Innovations in Educational Systems

Formal education is believed to have a limited function and has failed in its duty to create social sensitivity and responsibilities. Such a dismal position can be remedied by providing a refined "study culture" for students and "work culture" for teachers. In particular, students need to be trained to acquire a scientific temper, self-reliance and social conscience through an integrated programme.

The most important task in seeking the so-called alternative paradigms in education is to firmly separate paradigmatic explorations from dogma. For, in reality many popularly prepounded "paradigm shifts" are actually shifts from one position of dogma to another. The essence of a paradigm is the internal consistency in its constitution - number of theoretical premises, mutually supportive, generating a variety of fresh hypotheses for extended generalizations, and all of these proceeding with the emergence of appropriate methods, techniques, and specific tools in the various stages of observation, analysis, inference and theory building.

One such example of an alternative educational system was described as a case study. The internal consistency among the principles in this primary-school for the rural poor could be linked to important theoretical premises in the behavioural sciences. Examples are : a) the "pygmallion" effect of behaviours being determined by the labelling (consciously or unconsciously) of pupils by teachers; and following from this the importance of creating learning environments which promote positive self-concepts regarding learning abilities and competence; b) the recognition of *love* as a desirable biological need (and not a luxury), and its significance in the school environment as a foundation for an integrated body-mental health; (c) the definition of teacher as facilitator of learning rather than as transmitter of information; and the extremely important task of reorienting the teacher's value system to the alternative perspective; (d) the importance of stimulation and motivation through non-evaluative means for maximizing rates of learning; and (e) the importance of cooperative effort in all learning tasks moving away from all competitive impediments.

There is need to re-examine and demolish several stereotypes that might operate as unquestioned assumptions or dogmas in education. Instances are gender and sex role stereotyping (e.g needlecraft and woodwork); subject status stereotyping (eg. music and crafts versus science and mathematics); language stereotyping (the questionable nature of the medium of instruction conflict); and learning rate stereotyping (what is possible at what age).

Several process indicators were described to substantiate the positive outcomes of the alternative paradigm, reflected in student motivation, self sufficiency, maturity in learning, community involvement in education, cost-effectiveness of the programme, and so on.

There is a dire need to thoroughly document the experiences of such alternative models for further understanding, and creating awareness and optimism among educational planners that resource constraints need not deter human development through education.

Models for Participatory Education

The limitations of the conventional approach to adult education has led to a search for alternatives. One such alternative is the participatory approach which believes that people cannot be developed, but can develop themselves

through their own actions. For this they need to be empowered through a facilitating process to utilise their own skills and potentials. The underlying principle of this approach is the willingness on the part of the teacher/trainer to accept the competence of the learner to choose what and how they want to learn. For the effective implementation/use of this approach, the rigidities of the conventional requirements of eligibility, evaluation, and accreditation of learners need to be relaxed.

While adopting the participatory approach to education one has to be cautious about some ethical issues such as how to promote informed choice in the group without imposing preconceived options and directions from the change agent and how to help the group through stages of "resetting" and "refreezing", going beyond the techniques of "unfreezing" only at the start, as all changes in individual group behaviour invariably imply confronting and resolving conflicts.

To conclude, the Workshop covered a wide gamut of issues starting from the problems of illiteracy and the crisis in higher education, to institutional and financial reforms of the existing system, human resource development for teachers and administrators, and finally, innovations such as "participatory approach" for adults, and creating alternative environments that promote learning and motivation in the case of children. Most of the participants agreed that the Workshop was a worthwhile exercise, but some felt that the ideas generated at it need to be widely disseminated if they are to be profitably utilised by public and private agencies in the education sector.

Book Review

Gilbert Etienne et.al., *Asian Crucible : The Steel Industry in China and India*, Sage Publication, New Delhi, 1992, p304, Rs. 285 (hb)

The book under discussion is a timely contribution inasmuch as, while tracing the growth of the steel industry in China and India, the authors also evaluate, in the process, the character of economic growth in general and the functioning of the industrial policy in particular in the two countries.

The tediousness of the entire presentation notwithstanding, important aspects brought out by the study include :-

(a) The capacity of the Chinese economy to consume as much as 56 Mt. of finished steel against about 13 Mt. by India, (here it may be noted that China has been importing a very large quantity of steel ; they imported about 11 Mt of finished steel in 1988 against 1.5 Mt by India). The all-round development of the Chinese industry has been at a far more accelerated pace as a result of which, steel production / consumption in China is merely in alignment with the overall economic indices and meshes with the proportionately higher level of economic activity. [p 269]

(b) In China, the centre's role is mainly supportive and limited to fixing the overall targets, technology plans and coordination of and with the iron and steel and its input industries on the one hand and user industries on the other. In the decentralized scheme the controlling authorities are the provinces, municipalities and autonomous regions. Here also the areas of control and dissent are limited. In most cases there are clear guidelines. The decision-making process in the steel plants is not hemmed by organizations such as the Bureau of Public Enterprises; neither do they have to cover their flanks against postmortems [such as the Committee on Public Undertakings, Audit Board, etc., in India]. The decisions taken at all levels were felt to be faster and bolder in China. [p 67]

(c) On the question of design and technology development, the authors note that, in India (unlike as in China), the absorption of technology and manufacture of equipment did not accrue within the steel plants nor did this seem to have been an aim. Whether it was a major expansion or a new plant, the authors point out that it was tied up with foreign credits for all major aspects of the design of the plant, its projection units, division list of equipment, etc., Besides all the major expansions and new plants have involved external assistance with the donor countries on the driving seat with their own interest as apposed to indigenisation. Though a Central Research and Design Organization was set up in the early seventies, for one reason or another it was not very effective in its contributions. It had dfficulty in selling its ideas and gaining the confidence of the steel plants. [p 227-28]

(d) As far as manpower in steel plants is concerned there are major differences between the two countries. Chinese wages are lower, the number of officers much lower and the highest wage for the top executive was only about two times that of the lowest paid worker. In China, activities such as [i] maintenance [ii] in plant manufacture of components, subassemblies and in many cases, modification and new equipment, erection [iii] commissioning and in case of second-hand equipment purchased from abroad, its dismantling etc., are grouped together and the manpower employed for these activities is much higher in China. As far as management and leadership is concerned, there is greater continuity of top executives in China and they are almost invariably thrown up from within the organization. There is greater decentralization and autonomy, conditional on their meeting the production targets. If they fail to do so the consequences are severe including reduction of wages and moratorium on expansion. [p 275-76]

This being a field-based study micro-level documentation of some of the important observations would not only have enriched the study but exposed starkly the politics of the process of industrial development particularly in India. Observations relating to MECOM and HMBP playing second fiddle and presenting a picture of conflicting interests vis-a-vis the steel plants should have been concretely explicated. Likewise, the fact that external assistance involved donor countries occupying the driver's seat with their own interest as opposed to indigenisation, could have been explored indepth, by, say, examination of specific collaboration agreements, etc.

Another important observation made in the context of appraisal of SAIL's performance is that there is, " relatively lesser sense of belonging to and identification with the well-being and success of the plant on the part of most of the employees". [p 70]

Detailed interviews with employees at various levels would have helped capture to some extent why commitment to enterprise did not rate high. The composition of labour (including the percentage of permanent, contract, casual labour etc.) *alongwith* a break-up within these of those that form the managerial, maintenance, etc. cadres (over a period) would have given a clue to the lack of commitment found among the Indian workers as compared to their Chinese counterparts. Details of labour restructuring consequent upon changes in technology and vocational training of labour are some aspects not adequately dealt with in the study.

In the context of the vociferous demand for even more liberalization of the economy, the concluding statement made by the authors (stemming from their analysis of the steel industry in China and India) needs to be boldly underlined: "Now there is a risk to fall into another trap: rightist dogmas, whereby free enterprise and the market are the golden keys or the panacea for all ills. As shown by South Korea and the province of Taiwan in recent times, the question is not 'for or against' the public sector but for an efficient economy where the state has a large role to play not in slowing down development as has happened so often in the Third World, but in stimulating economic growth and channelling it in the proper way while giving their due share to social factors as well".

PADMINI SWAMINATHAN

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MADRAS INSTITUTE
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DEVELOPMENT STUDIES
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Problems and Prospects of Entrepreneurship

The Changing Dynamics of Industrial Employment: Issues for Consideration

CONTENTS

EDITORIAL - SOME HIGHLIGHTS

I. General Economic Scene

State

Plan

The VIII Plan outlay of Rs. 10,200 crores as earlier pointed out, which was a 77 per cent increase over the VII Plan at Rs. 5750 crores involved some hard decisions and mid course corrections during 1991-92, during which year the state was able to demonstrate a financial performance which could ensure a plan of Rs. 1751 crores and the VIII Plan outlay. By the end of 1991-92 the state faced a deficit of Rs. 898 crores, including Rs. 500 crores because of various subsidies. To this the abolition of the cheap liquor scheme added Rs. 322 crores, raising the 1991-92 budget deficit to Rs. 1220 crores. Then followed a series of hard decisions to correct the situation, starting with a stiff increase in power tariff which brought in Rs. 153 crores and reduced the power subsidy by that amount. Next came the bus fare hike which raised Rs. 100 crores. The budget proposed fresh taxes for Rs. 70 crores. The duty and tax on IMFL raised Rs. 260 crores. Then there was a loan of Rs. 150 crores against small savings. All this made possible for meeting the 1991-92 annual plan of Rs. 1605 crores, with the actual rising to Rs. 1650 crores, bringing down the budget deficit at the close of the year to Rs. 201 crores. The thrust of the VIII Plan is on the infrastructural and social sectors. The outlay on power is up by 50 per cent to Rs 3000 crores, water supply and sanitation get an increase of 141 per cent to Rs. 1450 crores, roads and bridges get a 246 percent increase to Rs. 450 crores, education gets an increase of 63 per cent, health 77 per cent, SC & ST Welfare 185 per cent and environment 5 times to Rs. 26 lakhs. The state still faces a difficult financial task during the VIII Plan and may have to return to the proposal to increase the issue price of rice, when the Agricultural Prices Commission announces the new support prices for the year. Similarly it may have to revert to the decision to raise the tariff and reduce the free power to farmers. As its expenditure is rising on account of repayment of loans and interest, its share of small savings is falling by about 50 per cent of last year at Rs 150 crores. Thus some hard decisions face the government.

Climate and prices

In July the climate in the state was varied. Bouts of south west monsoon rains alternated with some serious pauses in the rainfall. Madras received little rain, being less than 10 per cent of its normal for July to the point where drinking water supply in some areas of the city-like Adyar, Besant Nagar, Indira Nagar, Kamaraj Nagar in Thiruvanmiyur-has been hit owing to the depletion of ground water and the water table going down. There is a danger of saline water seepage in these areas which had to be guarded against. On prices, the all India truckers strike sent consumer prices-vegetable, fruits, fish, soaring in July. The CSO monthly abstract for March 1992 reports that the Index number of consumer prices for industrial workers rose from 210 in August 1991, to 211 in September, to 214 in October and spurted sharply to 224 in November and December 1991. The Index number of consumer prices for agricultural labourers rose from 861 in August 1991 to 887 in September, to 912 in October and 931 in November, this sharp rise in rural prices being due to the 87 point inflation in food prices from 922 in August to 1003 in November 1991. The consumer price index for urban non manual workers registered a much slower and moderate rate inflation from August to December from - 188 to 193 in Madras, from 182 to 191 in Coimbatore, from 175 to 183 in Salem, from 184 to 194 in Madurai and from 182 to 192 in Tiruchy. This urban inflation for the middle classes moved up gradually unlike the rural prices.

Power

The power situation in July in the state was normal. There were a few hiccups due to a breakdown of some plants in Neyveli and strike in others. The Tamil Nadu Electricity Board reports that the fate of the proposed gas based power plant at Basin Bridge (See Vol XXVII p283) is in doubt because of its economic feasibility. The Tamil Nadu Electricity Board which floated a global tender for turbines and generators finds that the lowest bid is for Rs. 293 crores which means a generation cost of Rs. 6.09 a unit. The Board has persuaded the Japanese firm to lower the price to Rs. 220 crores but even so the generation cost will be Rs. 4 a unit. In the absence of an alternative and to make power available to the growing industries in the state, the government is thinking of establishing the unit and absorb the loss. Whether this will be possible remains to be seen. An equally urgent question is importing Australian coal which has no impurities like Indian coal and costs the same Rs. 1200-1300 per tonne if the tariff duty of 85 per cent is excluded. To promote industrialisation in the state the 85 per cent tariff duty should be waived. The work on the North Madras Thermal project is going well and the first of the 3 units of 210 MW generator will be commisioned in June 1993. Due to the satisfactory inflow into the reservoir, the total storage at the end of July was 1954 MU, giving the possibility of another power cut free year.

For the country as a whole, the power situation continues to be difficult. The South West Monsoon which set in fully

in Kerala, Karnataka, South Tamil Nadu and AP and in the latter half of the month in Maharashtra, has only partially helped relieve the power shortage because not all hydel reservoirs have received rains. There is a serious financial resources crunch facing the power sector. There is likely to be a peaking power shortage soon because the hydel power has not picked up momentum and its share at the end of March 1991 was 28 per cent against the national requirement of 40 per cent and by the end of the VIII Plan, it will be 20 per cent, with hydel target reduced from 14,000 MW to 6000 MW, which even at this rate is in some doubt. The original target included the 1500 MW Naptha Jhakri project, the 2400 MW Tehri project which at their present state of readiness will not be completed in this plan. This situation also obtains for all NHPC projects during the plan period. These projects include 540 MW chamera (HP), 345 MW Sahal II, 300 MW Dal Harti and 480 MW urs (all in J&K), 60 MW Rangit in Sikkim, 710 MW Koel Karo (Bihar) and 280 MU Dhauli Ganga (UP). Another problem facing the power sector is the enticing of the private sector to enter the power field. State Boards owe NTPC Rs. 1500 crores and NHPC over Rs. 210 crores. The Rao Committee on two part tariff has only added confusion. The dejure transfer of assets from the central units to NPTC is yet to take place. Power 'thefts on energy conservation, rampant corruption, over staffing, poor manpower utilisation, lack of proper coordination with the state governments, over centralization with CEA for project clearances, bureaucratic delays are some of the problems now facing the power sector which need urgent attention.

Water

As noted earlier, the south of the state has received good rains as part of the south west monsoon. The catchment areas in Karnataka have had such plentiful rain, that the Kabini reservoirs has been overflowing, and as noted in the last issue, water was being released to Mettur. The inflow into Mettur has been between 12000 to 20,000 cusecs a day giving up to 1 lakh cusecs in the last week of July, and the level of water in the reservoir has been 92.90 feet on July 30, the full level being 120 per cent. The Rs. 603 lakh Coimbatore Water supply project, aided by the World Bank will be completed by December 1992. It will supply water to Coimbatore, 20 panchayats and 523 other rural habitations. A Rs. 10 crore water distribution net work is being set up in Coimbatore to augment the existing net work, from the Pillur reservoir fed by the river Bhavani. Both these are part of the second instalment of the Rs. 372 crore from the World Bank to step up water supply to Coimbatore, Madurai, Salem and 44 small towns. To meet Ramanathapuram drinking water problem, 58 desalination plants are being set up in phases. The Rs. 30 crores major plant is to be established at Sayalgudi to provide 35 lakh litres daily. BHEL is undertaking the execution of the project.

Housing and Urban Development

The state government has taken a series of measures to promote housing. One is sales tax and excise duty concession to housing and materials and components produced in industrial units. Detailed specification of cost estimates are being worked out by various government corporations and departments for use of new materials and new techniques in house building. Some provisions of the Rent Control Act are being relaxed and the various centres and regulations are being streamlined. An advisory committee is being formed, consisting of the main bodies involved in housing construction to advise on housing. Also the urban land ceiling and regulation act is to be reviewed. The state government has launched a programme "operation clean up" to remove all malpractices and irregularities in 3600 fair price shops in the 3 municipal corporations and 98 municipalities in the state. TNSC, Civil Supplies and Cooperation departments and police are involved in the massive programme, covering 34 lakh family cards, the cards are being surrendered and new cards issued within 3 days of the surrender.

Transport

A $285 million ADB loan has been negotiated for the development and modernisation of Ennore (and Paradeep) ports, $140 million is for Ennore development, starting with constructing 2 berths for coal handling on the land acquired by the governments for this purpose. TNEB is looking after developing the necessary onshore facilities. Port traffic has recorded steady growth, in April-June traffic registering 10 per cent increase, against the 1991-92 record utilisation of 160 million tonnes. On the negative side, the unnecessary delay of over 2 years by union ministry of transport on replacing ordinary cranes by gentry cranes has sent up their cost from Rs. 15 crores to Rs. 35 crores. The new modern cranes will increase the value of coal that is transferred and also make the transfer smoother. The movement for the state shedding operations which can be undertaken by the private sector is now being applied by the union ministry to the Madras port. The Madras Port Trust with the help of the city chambers of commerce and industry is identifying the areas which can be privatised. These include areas like special cargo handling equipment, floating cranes, pilotage, pollution control measures, water supply to ships through barges and even construction of additional berths. In July the all India unigauge project for the railways was inaugurated under which the whole of the existing metregauge will be converted into the broadgauge. This single broad gauge will be an important milestone in the country's commence. Work on the Madras city Mass Rapid Transit System (MRTS) is progressing slowly in stages. The work on the Chintadripet elevated station will be completed by the end of this year, the Park Town-Chepauk sector by mid 1993 and from Chepauk to Luz by 1995. The MRTS from Madras Beach to Luz covers 8.53 km and is aligned along the Buckingham Canal. This is the first elevated Railway construction in the country and so its many challenges are being squarely faced and met.

Monopoly Procurement

The government has extended upto 31 August the monopoly procurement of paddy in the Cauvery delta covering Thanjavur and parts of Tiruchi, South Arcot and Pudukottai districts. This will enable the late samba paddy to be procured. So far 12 lakh tonnes of paddy has been procured against last year's 10 lakh tonnes. As Kuruvai has started and is doing very well with Mettur water release, the procurement deadline is likely to be further extended to cover kuruvai paddy.

Population

The birth rate in the state is 22.1 per 1000 in 1991, against 28 per 1000 in 1981 and 23.1 per 1000 in 1989. The death rate has declined to 8 per thousand in 1989 against 11.8 per thousand in 1981. So the state's population growth is 1.49 per cent, next to the lowest rate of Kerala of 1.39 per cent. Even so this is too large population increase from 4.84 crores in 1981 to 5.56 crores in in 1991 - which means that food, clothing, housing, schooling, employment have to be provided to 14 lakh more households.

States loan and Stock Exchange

24 states have borrowed Rs. 1200 crores in the first tranche of borrowing by the states for 1992-93. The states will come for their second tranche in September when their Rs. 309.20 crores mature. On July 27, the special court judge set forth a formula to bet tainted shares with which shares purchased by bonafide buyers for value is to be released from attachment by the income tax department and the custodian. This should enable the stock exchanges of Bombay, Delhi, Calcutta, Madras to begin functioning, a problem which is referred to later.

National

Plan

As of the end of July, the Eighth Plan as revised by the National Development Council has not yet been placed on the table of Parliament, when it becomes a public document. The World Bank has commented on the draft which was before NDC. On the whole, its comments are negative, but where it is specific it should be taken into account. The general comment that the methodology of the Plan is disappointing, its targets unrealistic, and there is a mismatch between the text and the figures. The text speaks of increased deregulation which will contain government expenditure, but the data on expenditure shows an increase from 12 to 12.2 per cent. While the Plan talks of a substantial cut in subsidies, the data shows only a small 0.5 per cent reduction. Against the promised, containing of the revenue expenditure of the government, there is an increase in non interest current expenditure. The Plan is at current prices and does not provide for inflation. The agricultural targets are unrealistic as for instance in the annual 4 per cent growth in foodgrains against the actual of 2.5 to 2.8 per cent growth in post green revolution period, including assuming an annual 5.4 per cent growth in foodgrains against the 1 per cent increase in the past, pulses, growth targeted an annual 4 per cent against an actual 2.1 per cent, oil seeds 5.6 per cent against 4.1 per cent and cotton 5.9 per cent against 1.6 per cent. On wheat the 3.3 per cent annual growth rate is below the actual but will not be realised in the future given the stagnation at 50.55 million tonnes in the past 4 years and the increasing diversion of the area to other crops against which the plan assumes 0.75 million acres increase. Fertiliser consumption is forecast to increase from 13.5 million tonnes to 18.3 million tonnes by the Plan, and which is necessary to attain the foodgrain target but the problem of resources needed is not dealt with and the allocation in imports which will have to be substituted. Again HYS area is assessed to increase by 15.4 million hectares during the Plan whereas in the last Plan the increase was 6.4 million hectares. The Education sector is vague and inadequate in terms of finance. The infrastructure for universal elementary education is not provided and the proposal to reduce costs by heavy reliance on non formal education will only lower quality. On the industrial sector, it finds adherence to "past policy shibboleths", like regional dispersal of industries through growth centres in backward areas and encouraging R & D for assimilating of imported technologies. It does not provide for price control on drugs and pharmaceuticals. Some of these criticisms, if not most, stems from the Bank's biases in favour of the market. The only part which should be taken into account is the first part where the contradiction between the plan intentions and statistical data is pointed out. That should be looked into.

Prices

The rate of inflation for June 1991 measured on the basis of the wholesale price index on a point to point basis was 0.9 per cent, the whole sale price index standing at 222.8 on June 27. The consumer price index for industrial workers rose by 3 points at 234 which was a rate of inflation of over 2 per cent. The rise in the whole sale price index was due to the rise in price - of cereals including rice, ragi and jowar by 3 per cent and a marginal rise in price of non food articles 0.6 per cent. The annual rate of inflation as at 27 June was lower at 11.34 per cent against the May rate of 12.8 per cent as pointed in the last issue. Does this mean that inflation is declining? The answer is yes as the data shows, and no as a long term price trend. This fall is caused by temporary fall in demand and curb in money supply.

Stock Exchange, Budget and Bank Supervision

In his July statement to Parliament, the Finance Minister stated that the SEBI Act is being reviewed in order to bring amendments to it to make it more effective particularly to ensure greater transparency in transactions which will eliminate manipulation of stock prices and insider trading. This reform is needed to make the brokers act in conformity with the guidelines including the problem of "tainted shares" related to the stock exchange operation of Harshad Mehta. This problem led to the Bombay, Delhi, Madras exchanges not doing any business in June. This should be corrected in the reform being worked out. SEBI also reports that in the last 6 months it has received 1,37,955 investor complaints, of which 84,915 were on non receipt of refunded orders and allotment letters, 34,104 on non receipt of shares and debentures certificates, 11,954 on non receipt of dividends/interest. A part of this is due to the companies which need to keep SEBI informed of their response to the complaints pertaining to them. Where they concern brokers, which is a smaller number, SEBI can act directly. The government also announced in Parliament that it will set up a new stock exchange in New Bombay which would be a model exchange, completely automated in trading and settlement procedures and provide access to investors from all over the country. Also a national clearing and settlement system is being set up with a central department trust and a securities facilities support corporation which will establish and maintain the net work during exchanges. The Finance Minister in the same statement announces that it has planned to set up a higher power supervision board to oversee the funding of banks and other financial institutions. There is to be a separate special bureau on fraud to deal with serious frauds in these institutions. The Board will lay down operating guidelines,

look after supervision and enforce compliance. The Governor of RBI will be its chairman and the vice chairman will be a deputy governor of RBI. These seem to be the aftermath of the stock exchange scam, looks like bolting the stable door after the horse has run away. It is also important that the autonomy and lessening of controls of regulation of the banks and financial institutions should not be revised. On the budget, RBI data shows an alarming increase in the budget deficit from Rs. 4779 crores on April 3 to Rs. 14,948 crores on July 17. Unless this rate of increase is arrested, the budget strategy and the macro economic reforms will not be adequate to meet the current crisis.

Economy

On the economy, there are four major developments that are reported in July. First, the state of the economy, both the past year and the prognosis for the coming year causes concern. As noted in the Bulletin (Vol. XXII p25). RBIs report on Currency and Finance for 1990-91 forecasts that in 1991-92 the GDP growth rate will be 2.5 per cent, for agriculture 2.6 per cent, industry declining by 0.9 per cent with 2.7 per cent in manufacturing. RBIs quarterly review of developments (January-March) confirm this forecast and adds a 18.5 per cent increase in money supply (M_3) and gross fiscal deficit at 6.6 per. cent. The short term is even more alarming. In the June 1992 assessment by the finance ministry, it describes the overall state of the economy as "deficit pre monsoon rainfall, lower foodgrain stocks, procurement and offtake, stagnant industrial production, mixed trends in infrastructure and investment climate, higher growth in money supply, inflationary pressure to continue exports in dollar terms sluggish, trade deficit at record level, substantial improvement to external aid and marginal decline in foreign exchange reserves. Second, against this background, the fresh objectives for 1992-93 set by IMF stand in contrast as part of the conditions of the upper credit tranch of $2.2 billion received. These conditions include i) keeping broad money (M_3) below 10.5 per cent this year against the 19.5 per cent growth in 1991-92, ii) reducing the inflation rate to 8 per cent against 1991-92 over 13 per cent, iii) bringing down the fiscal deficit to 5 per cent from last year is 6.49 per cent of GDP. The finance minister has accepted these conditions because he says he sees no alternative to it for meeting country's balance of payments, but this will involve cutting the fertiliser subsidy and keeping the food subsidy to the Rs. 2500 crores provided in the budget. In addition he assures IMF that there will be current account convertibility of the rupee and unification of the dual exchange rate in 2 to 3 years. He believes that the economy will be on a high growth path of 5.5 per cent. IMF is pressing the government to establish the exit policy. Where are the resources to come from for the policy, given the slow down of the share and capital market to be referred to later. The government report fully to IMF targets for the first quarter of 1992-93 as set forth earlier. Third, a second report in June was the second Jankiraman report on the stock exchange scam. It now places the sum involved in the scam at Rs. 3542.78 crores against the Rs. 3078.96 crores in the first interim report, including the risk expansion of the banks now up from Rs. 3078.73 crores to Rs. 3192.79 crores, which it probably an under estimate, given the number of players involved, including 4 large foreign banks. The instruments used alos increase and include assets exchanged or forward traded, the mixture of securities sales and call money receipts, BRs and public sector bonds. There were endless manipulations and cover up of losses by brokers and banks. There are many questions raised. How can banks be allowed to cope with their normal risk exposure and not be subject to new controls and a witch hunt? How long are the stock markets going to be closed? Would lifting the ban on ready forward trading revive the stock market? How can this be done without money safeguards? On the basis of a survey of 235 public sector and private companies, CII concludes that this year there will be double digit inflation combined with an improved business outlook, increase in the value of output and a growth rate of the 10 per cent. 70 per cent of the companies expect an improvement in business outlook, 27 per cent status quo and only 9 per cent foresee decline, 68 per cent expect a 10-15 per cent inflation and 60 per cent a sharp increase in plant and machinery which lays the base for the high growth rate forecast. The government has set up various institutions referred to earlier under stock exchange sector for the purpose but this is time consuming. Fourth, the government reported to Parliament in July that the incidence of poverty in the country has declined. The statement was that provisional (NSS), data for 1987-88 shows that 237.6 million people constituting 29.9 per cent of the country's population were living below the poverty line in that year which was 7 percentage points less than that for 1984-85. In making this report, the government stated that it rejects the World Bank's data on poverty. It refers to the updating of the poverty line taking into account the changes in prices, the concept itself being unchanged. For the VIII Plan, the base year (1991-92) poverty line has not changed. The poverty line is revised taking into account the 1991-92 prices from that of 1973-74. On this base, the rural poverty line is equal to an expenditure of Rs. 11000 and urban line Rs. 16,850. The per capita monthly income to avoid poverty has been increased from Rs. 49.09 in rural areas and Rs. 56.64 in urban areas at 1978-79 price and which are being updated with the 1991-92 prices. The data of the World Bank and MIDS studies show a much higher percentage of poverty. But taking the government data at face value, the per capita consumption expenditure on which the poverty line is calculated is open to question. There are other questions of relevance. A.K. Sen has raised the question as to whether the poverty abolition programme should be addressed to target groups or applied to all who are poor. His conclusion is that the poverty alleviation programme in which the poor should be participating, the policy should be politically viable. Further the UNCTAD, ILO and even the World Bank staff point to their studies which show that the structural adjustment programme continue to be factors of destablisation because they increase poverty and benefit upper (moneyed) sector. In fact the World Bank study states "the studies we are conducting for our next report on poverty and development indicate that the tendency in almost all third world countries is towards increased poverty and severe marginalisation". But the study hurriedly concludes that this does not mean that the World Bank is against the structural adjustment and economic liberalisation plans which are the only viable prescription, but "the way in which they are being applied worries us". The Indian structural adjustment programme is growing and deepening the country's poverty in the short run, as the cuts

in the Plan outlay on anti-poverty programmes.

Industry

IIP shows that the industrial growth rate in March 1992 registered a 1.3 per cent growth, (which the Economic Times describes as "recessionary conditions prevailing in the Indian economy appear to be abating - which is too rash a conclusion because the index also shows that for 1991-92 the growth rate was stagnant at 0.1 per cent compared to 8.3 per cent in 1990-92, according to CSO. The reasons for industrial stagnation are given as severe import curbs, high interest rates and increasing costs of imported inputs. The manufacturing sector records 3.6 per cent, -1.1 per cent and -3.1 per cent in the past 3 quarters but picked up in the fourth quarter to register +0.6 per cent. For the full financial year, manufactures recorded -1.7 per cent compared to 9.1 per cent in 1990-91. On account of recession in manufacture, industrial production dropped by 1 per centage point in the first half of 1991-92 compared to 11.6 per cent in the same period in the previous year. The slow down in industrial growth in the first half of 1991-92 was due to the 2·8 per cent decline in mining compared to the previous year's 3.2 per cent. Electricity production recorded a growth of 8.7 per cent compared to the previous year's 7.8 per cent. The government has decided to change the base year for the industrial production from 1980-81 to 1985-86. The weights for the different items are being changed. This will result in a different growth rate for the VII Plan. CII report that its survey of industry show a growing confidence in the near term as noted earlier, which is an improvement over the October 1991 survey which shows 51 per cent of firms interviewed expecting improvement, 22 per cent the same and 27 per cent worsening. On the project for the Small Farmers Agri Business Consortium (SFAC) for which the budget provided Rs. 100 crores, RBI, IDBI and and NABARD are promoting this autonomous project aimed at supporting improved innovative income and employment generating schemes for economically and socially disadvantaged sectors of society, including small farmers. The consortium will fund on the principles of economic efficiency, environmental soundness and social equity. It is organising 12 major projects in 1992-93 in different parts of the country based on a mix of enterprise with active participation from state government. Ten areas have been identified in which India has comparative advantage by global standards which cover food crops, oil seeds, coffee, sugarcane, horticulture, sericulture, dairy, poultry, acqua culture and agro forestry. There is developing a conflict between the agricultural ministry which wishes to be the nodal ministry for the project and Planning Commission which has planned it. This should be quickly resolved and the project got under way. On individual industries, the social audit panel for telecommunication has suggested creation of a watchdog panel by telephone exchange in the metro cities. This is needed and will make for efficiency. The World Bank recommends a massive entry of the private sector into the telecom sector. Foreign investors are being invited to enter the infrastructural field and not only in the consumer goods area. The response is awaited. Three South Korean companies have expressed their desire for a joint venture with Samita Engineering Company which specialises in making plant and equipment for submerged arc welder units. This is one of the few projects which is being jointly planned by India with a developing country.

Financial Sector reforms

RBI and the World Bank are jointly studying the financial viability of the Indian banking system. The study concludes that the system has become unviable as its capital and reserves have been wiped out by the deterioration in the quality of the portfolio. The Narasimhan Committee report called attention to this, and the study gives details of the committee conclusions. The system faces a risk of default of interest payments and repayment of principal at 5 per cent of total assets, but its administrative costs as a proportion of its total assets is not high. On the basic criteria of efficiency, the system has not fared well. To improve RBI control, it recommends a three month RBI bill. This fills out the Narasimhan Committee observation of the financial viability of the system and the means of improving its effectiveness.

Public Sector enterprises

There were 3 developments in July with regard to public sector units. The public sector power projects are facing a financial crunch and in this context, the government has served them with guidelines, forcing them to replace their long and medium term financial plans and revise their project viability reports in light of the new financial guidelines. The existing cabinet direction to finance power projects by 50 per cent from union funds is being replaced by adhoc costly arrangement like the debt : equity ratio being well above the 1 : 1 guideline, mobilisation of expansion and short duration debts, non payments of dividend on their government subscribed capital. Now this adhocism is increasing with both NTPC and NHPC having massive debt of over Rs. 2000 crores due to them from SEBs. Against this background, the Krishnamurthy Committee on disinvestment of the public sector units, has recommended that the shares of the PSUs not listed in stock exchanges be disinvested not only to public sector financial institutions but also to foreign banks, selected share brokers, NRIs and private mutual funds. Finally the parliamentary committee of the commerce ministry is recommending a massive injection of funds and restructuring the chronically sick public sector units. It has visited many of the sick units and studied the alternative of closure or restructuring and recommends that they be restructured with the help of BIFR.

National Production Front

Steel

In July a further increase in steel price is anticipated to compensate for cost escalation since May when the last price rise was effected. But this coming price rise will be at a level which would not trigger inflation. The steel industry as a whole faces 2 serious bottlenecks which prevents it catching up with the growing demand for steel in the country which is at a low level with per capita consumption at a tiny 29 kg compared to 63 kg in China and 500 - 700 kg in US, Japan, Germany etc. The reason for the stagnation of steel production at 12 to 13 million tonnes is inadequate investment and delay in the introduction of new technologies. The freeing of the industry from licensing control, the involvement of the private sector which it is now

felt has both the expertise and resources to enter this capital intensive sector, the decision of sponge iron and pig iron industry and liberalised guidelines for the secondary steel sector should during the VIII Plan attract more investment resources and upgradation of the quality of inputs and greater attention on R&D. Already in the first quarter April-June 1992, the availability of mild steel increased by 9 per cent to 34.01 lakh tonnes from Rs. 31.39 lakh tonnes in the first quarter of 1991-92, net availability of pig iron rose to 4.29 lakh tonnes from 3.59 lakh tonnes. This trend is expected to continue and gather force in the next 3 quarter. MECON forecasts that 10 to 15 million additional tonnes of steel production may come up during the VIII Plan on the basis of the capacity being developed in the integrated and private sector.

Crude

India's crude oil products declined by 5 per cent from 685,000 barrels per day in 1991, while its consumption has shown a marginal increase of 0.01 per cent from 57.9 million tonnes in 1980 to 58 million tonnes. In the case of gas, production increased from 13 million tonnes in 1990 to 335 million tonnes in 1991. To counter this declining crude oil production trend, the government has taken a series of liberalisation measures, allowing private and foreign investment in the development of discovered oil field and in refineries. It has also decided to open for exploration oil blocks on round the year basis. Additional foreign investment of $1.3 billion to $1.9 billion is expected to flow into the industry as a result and increased crude exploration and availability during the VIII Plan. Discoveries of oil and gas are open for private/foreign investment under the production sharing basis. To start with 20 such field are being offered for such collaboration. On refineries, public sector oil companies will lower 2.6 per cent equity, the co-venturer 26 per cent and the balance of 48 per cent will be offered to the public. The new policy should be applied immediately to the production of oil and gas in the Krishna - Godavari basin, when the recoverable reserves shares are estimated as at January 1, 1992 at 58.56 million tonnes of gas and oil. If that is done, VIII Plan target for this basin of 3.30 million tonnes oil and 1.24 million tonnes of gas can be attained.

Coal

In July, the most important development in the coal fields, was the decision of the union government to set up a new 4000 MW power station in Orissa having coal rich Ibu valley in the state. Simultaneously it has decided to expand the Talcher chemical complex to 2000 MW. These two projects are part of the plan to generate 7000 MW of power in Orissa. Both projects will be put up for funding to the World Bank. Coal India report that as an opening on privatisation, it is identifying the mines, particularly the captive mines of power plants or iron and steel plants which can be turned over to the private sector. SAIL reports that it is going for a long term arrangement for importing 2 million tonnes of coking coal over a 2 year period. This would rationalise SAIL's import of coking coal which has now been accepted by the goverment. The government reports that the decision to allow free sale of coal of 20 million tonnes, including 3,40,000 high quality coal has had a poor response with only 1.5 million tonnes of the former and 40,000 tonnes of the latter being sold The reason for this lack of response to the liberalisation of coal prices needs investigation. The government's charges introduced in the colliery control order from 1 July which removes the power of the coal controller to regulate coal supply and deliveries under the Essential Commodities Act particularly in Assam, the NE States need to be watched as this measure of liberalisation could give rise to rampant corruption.

Agricultural Production

The agricultural scene is a difficult area for two main reasons. First, the delay of the South West monsoon and its operation in spurts make any fore casting difficult. The monsoon season of 1 June to 30 September is a month late. It later spread over the country except in key areas of Punjab, Haryana and Western UP, and Rajasthan. Even after it set in and was in full force in Kerala, Karnataka, Gujarat, MP and West Bengal, there was a pause for over 2 weeks in July. Of the 34 meteorological sub divisions in the country, 11 have received excess or normal rainfall, 34 face deficiency. These variation led the government to prepare a contingency of plans. Towards the end of the month, the monsoon revived in the deficient area of the North-Orissa, UP, J&K, West and East Rajasthan and East MP. This has brightened kharif prospects, which last year was estimated at 94.1 million tonnes against the target of 99.9 million tonnes, the decline being due to the fall in coarse grains output. Rabi wheat production could be higher than 1991-92 at 54.1 million tonnes. Pulses production last year was the same, while in oil seeds there was a shortfall of 7 to 11 lakh tonnes. Cotton production increased from 9.8 million tonnes to 10 million tonnes. It is too early to hazard a guess about the non food crops for this year. The second problem is the foodgrains stock and procurement situation. As at July 7, foodgrains stocks have been reduced by over 30 per cent, showing a reduction of 1.3 million tonnes in wheat and 1 million tonnes in rice, which means that against the minimum stock requirement of 3.7 million tonnes for wheat, with the actual use of 3 million tonnes and 2.4 million tonnes of rice with the actual at 2 million tonnes. Even more worrying than the fall in foodgrain procurement that represents is that the government has offered the highest procurement price of Rs. 250 per quintal for wheat plus a bonus of Rs. 25 per quintal, with some of the states raising the bonus and yet procurement has not picked up. For wheat, it was 11 million tonnes in 1990-91, it fell to 7.7 million tonnes in 1991-92 and is about 6.9 million tonnes now. While rice procurement in 1990-91 was 12 million tonnes, it is now 9 million tonnes. The reasons for this fall in procurement are a) the open market prices are higher than the minimum support prices, b) traders and millers have increased their purchase, c) farmers are holding back their yield in the hope of getting an even higher price at the end of the season. This situation has arisen despite the large number-9819 purchasing centres this season. Even as the procurement has declined, demand from PDS for foodgrains has increased and the government's decision to sell 9.25 lakh tonnes of wheat under the open sales scheme to contain prices may be noted. The number of fair price shops have increased from 3.15 lakhs in 1985

to 3.58 lakhs in 1990 and the quantity distributed has increased by 21 per cent at 187.69 lakh tonnes in 1991-92 against 154 12 lakh tonnes in 1987-88. The uncertain erratic monsoon and falling procurement of foodgrains present the country with a serious problem which is partly relieved by the import of 1 million tonnes of wheat from Canada. From a long term point of view, it is estimated that by 2000 the population will surpass 1 billion, which means foodgrain production will have to increase from the current 175 million tonnes to 220 million tonnes. Given the fact that there is little possibility of increasing the net cropped area beyond the amount of 141 million hectares, the increase of 45-50 million tonnes will have to come from increase in per hectare yield. And this requires increased inputs of fertilisers, HYV seeds, pesticide-all of which can be produced - but also the key input of water. Here the analysis of the time series data in 4 states - Punjab, Haryana, AP and Tamil Nadu shows that the yield of foodgrains in canal irrigated land is 3.8 lakh tonnes and those of tube wills irrigated land is 7.5 lakh tonnes in unirrigated lands. This means that there is urgent need to increase irrigation by all means tanks, canals, and tube wells and investment in them needs to be increased rapidly.

Foreign Trade and Balance of Payments

In the first 2 months of the current financial year April and May, India's trade deficit shot up to Rs. 2214.82 crores against Rs. 240.16 crores during April and May 1991. India's imports in Rupee terms showed an increase of 77.5 per cent from Rs 500.05 crores to Rs. 7663.43 crores between the first 2 months of 1992-93 and 1991-92. In dollar terms, however, India's export during the first two months amounted to $2666.83 million compared to $2737 million (a decline of 3.9 per cent) while import increased by 24.74 per cent from $2895 96 million to $3651.53 million. One of the problems is the sharp decline in exports to the Rupee payment areas which was negative, declining by 39.89 per cent to Rs. 389.34 crores. The demand and supply gap, both short term and long term credits for exports is expected to grow further and reach 86.8 per cent and 76.9 per cent by the end of the VIII Plan from 75 per cent and 56.3 per cent during the current year. If and when this happens, exports will suffer from both lack of credit and its high cost. It also means that to close the gap the institutional resource base will have to rise in both the short and long term. For 1992-93 exports in dollar terms are projected at -13 per cent by the commerce ministry at Rs. 57,850 crores which is a growth of 31.50 per cent and at over that of 1991-92 which is $20.10 billion compared to 1991-92 exports of 817.86 billion. These targets are fixed to meet the balance of payments commitments, involving the step up of exports. It is based on the assumption that world trade will recover in the coming years. The biggest export increase will be textiles (42.70 per cent) including handicrafts and carpets (Rs. 17.79 crores) followed by gems and jewellery at (37.80' per cent) Rs. 9300 crores, tea and coffee. This also means that exports will increase this year by 10 per cent reversing last year's negative growth. To boost exports, the export promotion capital goods (EPCG) share and the advance license scheme has been further liberalised and the value additional norm has been reduced. This is part of the modification in the 5 years export-import policy (1992-97) whose highlights were a) widening the definition of manufacture to include agriculture, acquaculture, animal husbandry, pisciculture, poultry and seri-culture, b) physical exports by an exports promotion capital goods (EPCG), license holder to advance license holder to count towards fulfilment of export obligation, c) an EPCG license holder given the option to source capital goods from a domestic company, d) license holder permitted to import capital goods in semi knocked/completely knocked down conditions, e) computer software allowed to be imported under the advance license scheme, f) both IPRS and duty drawback to products exported under the duty exemption scheme, g) in addition to double weightage on net foreign exchange earned by SSI, triple weightage given to net foreign exchange earned by handloom and handicraft products to which also hand knitted carpets and silk products are assimilated, h) bonafide trade samples and proto types allowed to be imported without license, i) EOUs and EPZs allowed to export product through trading houses and j) use catalysts, byproducts will be allowed to be exported for regeneration pipes. The ministry reports that the feed back on the work of the five years export-import policy from industry has been positive and encouraging. The government also states that it is considering automatic approval for equity participation upto Rs. 2.5 crores, single window clearance within 90 days and automatic approval for accepting directorship on boards of foreign companies or promoting joint ventures alone. The government also notes with concern the continuing outflow of NRI deposits. During the first 2 months of 1991-92, NRI deposits worth $264 million flowed out of the country and in 1991-92 the outflow was $1.7 billion. This means that NRI still are not sure about the country's economic stability and commitment to open up. On specific export items, handloom exports have increased by 27 per cent in dollar terms and 70 per cent in Rupee terms in 1991-92 to Rs. 1810 crores. The government has lifted the 1 per cent cess on export of spices and oils. As a result of the ban on monsoon trawling in Kerala, marine exports are expected to fall by 50 per cent in the coming 3-4 months. Tyre exports are also falling in 1991-92, the export figure of Rs. 201 crores over Rs. 180 crores of the previous year is due to the steep devaluation of the Rupee. Engineering exports have increased to Rs. 4504 crores in 1991-92 against Rs. 3250 crores over the previous year. Despite global recession, export of leather and leather goods during 1991-92 totalled Rs. 3214 crores against Rs. 2554 in 1990-91 which was a 26 per cent increase in Rupee terms but a fall of 8 per cent in dollar terms. The Council for Leather Exports has fixed a target of Rs. 4252 crores and $1.480 million. In this, leather footwear and garments are expanding fast. Textile exports recorded a high 22 per cent in dollar terms in April - May 1992. Except cotton textiles and jute all others showed a substantial increase. A world Bank funded report presented to the Department of Electronics states a policy under which India's initial software exports can be boosted to $1 billion by 1996 from the current 100 million. EEPC has fixed an engineering export target of Rs. 6250 crores in 1992-93. 1.5 lakh bales of raw jute are being exported in 1992-93.

Loans and Aid

In July, the World Bank in accordance with the pledge at the Aid India Consortium granted India a series of loans a) Rs. 14.5 crores to Tamil Nadu government to purchase 400 bus chassis for Pallavan Transport b) $92 million from IDA to expand rubber production in the country and make it

globally more competitive c) $326 million for the Indravati power project on the basis of a compromise agreement under which the Orissa government will execute the project on the basis of a new agreement, a project monetary system to be set up and appointment of consultants to speed the much delayed projects, d) $ 350 million for the second Maharashtra power project, e) the prospect of an additional loan to the Narmada project despite the unfavourable report of the Independent Review of the Sardar Sarovar project. Holland has offered Rs. 68 crores as part of its quick disbursing loan. The US Ex Im bank has approved guarantees for upto $100 million in loan on exports of US goods and services. IMF announced the release of $647 million as part of $1.6 billion under the 20 month upper credit tranche and standing arrangement entered into with IMF in October 31, 1991 for $2.2 billion to help tide over the critical balance of payment problem. India's foreign exchange reserves at the week ending July 17 was Rs. 16.246.50 crores which is a rise of Rs. 4247.46 crores over the reserves of Rs. 11,994.34 crores in March 29, the end of the last, financial year.

International

World Economy

IMF's World Economic Outlook 1992 states that the recent slow down in the world economy has persisted for a longer time than forecast in the October 1992 study. Following a small decline in world output in 1991, it expects a growth of 1.5 per cent in 1992, which will gain momentum in 1993. It notes that India and the Philippines faced large macro economic imbalances because of the Gulf crisis and were less resilient than some of the other countries which were also affected. India was also severely affected by the break up of USSR and by a shortage of foreign exchange. It refers to India's structural adjustment programme supported by IMF and along with Egypt and Zimbabwe the successfull efforts made to bring the public sector deficits under control. In 1990 and 1991 India's revenue was 11.4 per cent of its GDP and expenditure 19.2 per cent, resulting in a deficit of 7.8 per cent of GDP which is now being reduced. The UN's latest study "world investment report 1992, Transnational Corporations (TNCs) as engines of growth" makes a strong case for countries like India going in for more Foreign Direct Investment (FDI). It points out that what matters to investors is not dramatic departures from past policy but how the new policy's investment climate compares with investment opportunities elsewhere. Though FDI in India between August and December 1991 was more than nine times at $165 million over that of 1990 at $18 million, the foreign equity invested is far short of what the Indian government expected. The shortfall may be due to the normal lags in investor reaction to policy change or indicted by the fierce global competition. It is a bit of both. The report estimates that the world stock of FDI now stands at $1.7 trillion, with flows in 1990 being $225 billion. For many developing countries, FDI, most of which is generated by TNCs and is the principal source of FDIs, representing the main source (74 per cent) of long term foreign capital flows from private sources to over 90 developing countries between 1980 and 1990 and is an important means by which they are integrated into the world economy. It points out that the world is characterised by a symbiotic relationship between trade and FDI, with intra developed countries trade amounting to one third of total trade. It also points out that TNCs outspend governments in technology, R&D and are increasing their involvement in some countries of Latin America and Asia though at a declining rate because FDI growth is increasingly concentrated in the US, EC and Japan which together account for three fourths of all FDI flows. Further, Eastern Europe and the countries of former USSR are becoming more important as host region for FDI and it forecasts that FDI flows to the region could exceed $50 billion by the end of the decade.

World Food

FAO estimates that world rice stocks will decline by 61 million in 1992 because the decline is the problem in China, India and Indonesia.

IMF

IMF announced a 1 year extension of its Enhanced Structural Adjustment Facility (ESAF). ESAF provides 10 year loan at 0.5 per cent interest. India is eligible to borrow from ESAF under very stiff conditions. India has not been able to meet some of the conditions under the standby loans, so taking an EASF loan will be near impossible.

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II. Agricultural Development in Tamil Nadu

Paddy and other crops

With the samba season coming to an end, the farmers have helped the government and its purchase centres to procure 12.39 lakh tonnes which is an all time high through the monopoly procurement of paddy. As earlier pointed out, monopoly procurement system which operates in the cauvery delta of Thanjavur and Nagapattinam, Quaide-Milleth and parts of Tiruchirapalli and Pudukottai and parts of South Arcot is likely to be extended beyond August 31 to cover the Kuruvai crop on which farmers are at work within this area of Tamil Nadu. This year the Thanjavur delta farmers have the resource of Mettur with the help of which they are planning to cover for Kuruvai 2.5 lakh hectares which has not been done for 7 years. In early July, farmers had covered 19,000 hectares in the delta area, 55000 hectares in other parts of the state. Transplantation by the farmers in the Mettur area cover 1 lakh hectares, of which by mid July they had covered 50,000 hectares, the transplantation extent being 17,3000 hectares in Thanjavur, 9300 hectares in Quaide-e-Milleth, 12,300 hectares in South Arcot, 1400 hectares in Trichy and 300 hectares in Pudukottai. In Madurai district which depends on water from the Periyar which in mid July stood a 128 feet, the full level of 152 feet, transplantation has been completed in 3000 hectares. The early opening of Pechiparai and Peruchai reservoirs, has helped farmers in the Kanyakumari district to start their kuruvai

sowing. But the inflows into Mettur and the other reservoirs are moving in spurts, leading to some anxiety about continuous water supply for the farmers. Farmers in the Cumbum valley have raised advanced nurseries in an area of 2260 hectares. Farmers in the Parambikulam-Aliyar project area have received water which will be increased in early August when the Tirumurthy reservoir is nearer capacity of 57 feet. Similarly the Amravathi dam is being opened to help the sugarcane farmers. Farmers growing cotton, coconut, groundnut, sunflower, gingelly and pulses also report good and in some cases very good conditions for cultivation. Both the farmers and the agriculture department in the state expect a good kharif crop of not less than 2 lakh tonnes of paddy. Farmers are also purchasing subsidised fertilisers from the cooperatives which have 5000 outlets and the agricultural department which has 800 outlets. The union has allocated the state Rs. 50 crores as fertiliser subsidy for small and marginal farmers. The first instalment of Rs. 24 crores has been released to the cooperatives and another Rs. 19 crores to the TN Agro Industries Corporation. A farmer who purchases Rs. 913 worth fertiliser for the paddy crop gets a subsidy of Rs. 210 which is not paid in cash but adjusted against the loan repayment to the corporation. For the groundnut farmers the subsidy is Rs. 140 on a purchase of Rs. 609 of fertiliser. Even so the Cooperative cover only about 25 per cent as the farmers. Also it is not known how many marginal farmers can afford to use fertilisers at even these subsidised rates. This should be examined in order to make sure that the subsidies reach the small and marginal farmers. ICAR announces setting up a Coconut Research Council in the state.

Research results

Of the 32 research report results made available in July, a group of four reports are of immediate use to the states farmers. The first group relates to rice where RRI Aduthurai released its paddy variety, JJ92 which has a soft long grain that can be used in briyani. Also some early kuruvai crop varieties - 5KM9 - ADT 36 and 37 which mature early and can be harvested in 105 days have been released by the Institute, with the extra early varieties maturing in 85 to 90 days. Also the Institute reports breeding a variety or samba crop better than cuttack's CR1029. Also the Institute calls attention to treating the fungus virus in Ginger with some control measures used against the virus in 1984. UAS, Bangalore reports on Mukthi (KTHI) and (CTH_3) and a white grained cold and blast tolerant vatiety. Cuddalore Research station reports on the basis of its experiments the farming methods including sowing methods, seed treatment, control of pests, to be followed in rice fallows in growing pulses - blackgram, green gram, and soya beans. The agricultural college, Killikulam reports that its field experiment showed that the application of horn meal as substitute replaces superphosphate needed and produces between 8565 kg and 7755 kg of rice. A second group of reports refers to other cereals and crops. The central plantation crop research station Kasargod reports that its experiments in growing the cacao tree which produces cocoa, to be planted between coconut rows and aricanut plants has resulted in varieties 1-21, 11-11 111-16 and 101 which can be grown here on the basis of a fertiliser schedule that is prescribed. TNAU, Coimbatore reports on its experiments with breaking yield ceiling on growth of the groundnut crop by application of growth regulators involving use of various chemicals which are described in detail for use by the farmer. The National Farmers Technology Research Centre, Vemban reports that

Azospirillari is a nitrogen fixing bacteria, which lives in the root system of cereals, millets and grasses. For soil innoculation 10 packets (2 kg) of azosprillum culture should be mixed with 25 kgs powdered. PYM and uniformly applied to the soil, producing a 12-15 per cent increase in maize yield. The Bihar Agricultural College reports on the experiments on pests and disease control in sesamum. This demands following a rigorous schedule of plant protection practices as set for the farmer. The agriculture research station Bijapur, also reports on the loss suffered by sesame (and gingelly) through the phyllody disease. The control measures, it suggests, altering sowing date, changing crop and diversity, removing weeds and reducing the vector population. TNAU reports that rust in sunflower spreads through wind borne inoculum. The fungus survives in the debris of the crop which should be destroyed as a simple method of controlling the pest. A third group of reports refers to fruits and vegetables. The Krishi Vigyan Kendra, Pondicherry reports that the black headed caterpillar which ravages coconut and coconut trees involves the following integrated control measures. Apart from chemical control, healthy and well maintained trees, removal of dried up and severely infested leaves and various biological controls can be effected. In severe cases chemicals (malathon 0.05 per cent) should be regularly sprayed. The college of forestry, Kerala agriculture university reports that a simple and effective way of protecting crops (and livestock) from high velocity winds which occur in Kanyakumari, Madurai and Ramanathapuram is to grow wind breaks as a shelter barrier. This involves design of avenue of the wind stream and polyculture plantation. S.V. Agriculture University, Thirupathi, reports on means of control of the nematode pest in the chrysanthamum crop. This requires detecting the initial symptoms at an early stage with, cuttings from the top of the long vigorous shoots alone should be taken for propogation, mulching the surface with pest moss and treating the soil with carboforous granules. A fourth group of research report results is of use to cattle farmers. The National Dairy Research Institute, Karnal reports on its studies to control and prevent mycotoxins in livestock. The toxins enter through animal food materials, usually low grade cereals, oil seeds and oil. In this case the toxin carrying foods can be ground nut, mural and other such meals, calling for sound agricultural practices and post harvest practices. The Vizianagaram department of animal husbandry reports on measures to control urea poisoning in cattle namely by maintaining clean cattle sheds, keeping the cattle away from urea solutions and oral administration of a weak acid like vinegar. The Veterinary college of research, Namakkal, reports on its work on Brucellosis, a serious disease in goats caused by infection through a variety of routes including the vagina, alimentary tract, and conjunctive, skin and inhalation. To control the disease which can also infect humans involves seriological identification, elimination of reactors, injection of live attenuated vaccines and monitoring or sanitary measures.

Fisheries

Satellite data is being put to use to locate fish in the sea along the states of Tamil Nadu, AP, Karnataka, Kerala, Orissa, Gujarat and West Bengal. NRS programmes maps based on the satellite data feeds them through fax to a number of fisherman agencies or cooperatives. In Tamil Nadu, work has been on the fish phase of Rs. 7 crores agricultural estate programmes to be

set up by the state government at Tharaivakulum in Chidambaram district. This will boost fish production by small entrepreneurs. The new initiative in prawn farming will develop 90 hectares of water spread area in 3 phases, with the final phase of 56 hectares costing Rs. 4.3 crores. The government has drawn up another Rs. 7 crore project for 1000 Ramanathapuram fisherman to take up prawn farming, adopting modern methods. A majority of the 9000 ponds in the area will develop fresh water fish. This year 10 model fishing villages are being set up with marketing facilities.

Tea

There is general agreement on the decline in production in 1992 by the tea industry, tea board and the annual report of Thomas & Co. The tea industry estimates that the output will decline to 710 million kg down from its initial forecast of 730 million kg and in contrast to the Tea Board's projected 760 million. In 1991, the output was 741.7.0 million kg and exports Rs. 1100 crores inspite of lower level shipped. The first quarter of this year, the decline will be 14 million kgs, the link being the decline in South India. By official estimates, the tea production between January and May 1992 is 151.8 million kg down by 30 million kg compared to that period in 1991. The other 2 major tea producing countries, Sri Lanka and Kenya also report a fall in their output, 34 million kg short fall for Sri Lanka and 11 million kg for Kenya. So world supply is likely to fall and price further harden. In India the major decline of 24 million kg-is in the South, where tea gardeners are facing a serious drought, in the North the shortfall is 6 million kg which can be made up during the 7 months remaining. The bulk of the fall is in the orthodox variety from 76 million kg to 56.2 million kg, with little hope of making up this gap. The major problem faced by the Indian Tea is the loss of the Soviet market. Whether the successor states will make up this fall in demand remains to be seen. Against the estimated production of 730 million kg as a maximum, domestic consumption at 540 million kg, exports will be the lowest in the 20 years at 190 million kg. The tea industry calls the attention of the government to the problem it faces in insuring the tea crop under the present comprehensive insurance policy. The industry wants the option of a separate transit insurance for all sectors of tea products-covering transportation, which the comprehensive insurance policy does not cover. The other side of this issue is that green leaves taken by motorised transport does not deteriorate or suffer damage, factories, with their sophisticated modern equipment do not face deterioration of tea, factory storages at a minimum so the tea growers feels that he is paying for insurance cover which he does not need. The government should look into and resolve this issue. In regard to *coffee* production, two developments in 1992-93 need attention. The delayed blossom shower is likely to reduce the 1992-93 crop to 161,500 tonnes against the 240,000 tonnes in 1991-92. The Coffee Board has fixed an export target of 120,000 tonnes in 1991-92 compared to 110,922 tonnes worth Rs. 346.93 crores in 1991-92. This was lower than that of year's target of Rs.400 crores, the short fall being due to the reduction in exports to Czechoslavakia following devaluation of its currency, delay to conclusion of the contract with Russia plus the sharp fall in world prices. In 1992-93 the attainment of the target will depend on whether CIS markets can replace the Soviet demand for 20,000 tonnes. The other development is that since the April 1992 meeting of ICO, it looks as if the quotas will be revived because both producers and consumers want it. The major producer Brazil and Colombia are facing reduced production and with world coffee price at their lowest, they have dropped their opposition to quotas. The major consumer, the US, has begun to realise that coffee production and coffee prices should rise and be supported more as means of countering the drug trade. On its part, India has demanded the allocation of a quota of not less than 90 per cent of exportable production of each producing country. Till a new agreement is reached, India will have to accept low world prices. Any new agreement which raises prices will also result in the consuming countries having a major say in the quality of the coffee that they import compared to the past The producers also are wary of fixing an international price at a low base as current prices are low, they want short term agreements which can be reviewed from time to time. With major producers like Colombia and Brazil having already launched campaigns to reduce their production, they may prefer to wait until the price gap between the price range of the ICO negotiation and that of the open market will not be too large. Thus there are many imponderables for coffee in both the short and medium term through which the Indian producers have to live.

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III. Industrial Development in Tamil Nadu

In July reports on industries and industrial development in the state had the usual positive and negative features.

On the positive side, *first Ponni Sugars and Chemicals* announced the setting up of 2500 tonnes per day sugar plant in Belangir, Orissa. It will be recalled that the absence of this kind of outward movement of Tamil Nadu industries was noted with regret (See Vol. XXII pp23 & 140). Also Pondicherry wants TN industries to set up industries in that state. *Second*, the newly formed Tamil Nadu Corporation for Industrial Infrastructure Development (*TANCID*) has offered to act as the nodal agency in bridging the gap in infrastructure development in the Manali belt. The chemical and petro chemical units in Manali have been asked by it to draft a work plan to tackle their problems on which TANCID will act as a coordinator between the various agencies and government. The first action programme is well on. *Third*, the growth centers sponsored by the union government in Tirunelveli, Kattaboman and Periyar districts are having the infrastructure development with the help of TANCID. The growth centre in Thanjavur district is delayed because the original location, Mayiladuthurai Poompuhar, has land acquisition problems and so a new location is being chosen with the help of the district administration. *Fourth, SPIC* announces that its turnover in 1991-92 is Rs. 1033.19 crores which would have been even higher if government subsidies had been paid. SPIC now enters the major industrial units group of the country. *Fifth, South India Shipping Corporation (SISCO) and the Essan group* are launching an ambitious plan to diversify into shipping related activities such as setting up private berths, bulk cargo handling. *Sixth, Sanuha Shoes* is setting up in Shollinganallur a Rs. 25 crore 100 per cent export oriented unit to manufacture leather garments and shoes. It is collaborating on this project with Pan Jupiter Trading of Japan and Remona Nisa of Indonesia. *Seventh, the Tamil Nadu based Measurement Technology Limited* will produce the 3000 series intrinsic safety isolators which are to provide safety to petro chemical and instrumentation and control. The technology is energy saving and is used to provide safety to hazardous environment. It has commenced operations by manufacturing 200 series intrinsic safety barrier. *Eighth, MRF* has both positive and negative features to report. On the positive side it has emerged as the leading tyre producer in the country and an important international tyre producer in the world. *Ninth*, TIDCO jointly with CII announces that the *Madras Singapore Industrial and Trade Corridor* under consideration for the past 3 years is taking shape with the industries supporting it and the India Singapore governments supporting its location in Tamil Nadu. The established infrastructure in Madras and the proximity to the port and airport have been underlined as favourable factors. In place of Madras EPZ which has only 40 to 50 acres for the project, the Singapore government wants a much larger area of 1000 hectare. The Tamil Nadu government has identified 800 hectares for this purpose. *Tenth*, the government has announced that in collaboration with Japan, *Seven new industrial centres* are being set up in Tamil Nadu at a cost of Rs. 70 crores. The centres would produce electronic and leather goods, garments and automobile spare parts. With the help of ADB, it is proposed to start industrial development centres at Panangudi, Perunthurai and Bargur. *Eleventh, the TVS group* announces that it is entering the export market on electrical and auto parts for the American and Italian manufacturers. This will in part compensate for the recession which has hit the industry which is referred to under negative features section. *Twelth*, the promoters of *Binny* have upgraded their contribution in the Bhuvanagiri project to the required Rs. 53.33 crores, IDBI will make its loan and clear the project. *Thirteenth, Arun Processors Ltd* is setting up a Rs. 20 crore 100 per cent export oriented plant in Periyar district to manufacture knitted fabrics. *Fourteenth*, Tamil Nadu Industrial Explosives reports that the plant will be able reach its turnover target of Rs. 35 crores for 1992-93. It will be providing 12000 tonnes of explosives with a capacity of 15,000 and 3000 tonnes of slurry. *Finally, TIDCO* is disinvesting 80 per cent of its holding, which will turn it into a joint sector project.

On the negative side, *first the sugar industry* reports the accumulation of surplus quantities of molasses resulting from the 1991-92 molasses production of 6.98 lakh tonnes and the opening stock of 2.57 lakh tonnes resulting in a total availability of 8.61 lakh tonnes. After use by the distilleries and exports there is still left a 3.20 lakh tonnes which the union government should allow to be exported. *Second*, TIDCO announces that it is withdrawing from the promoters agreement with *Sterling Computers Ltd.* (SCI) for developing the Rs. 120 crores nitro chemical project, as SCI, has backed out of the project leaving TIDCO to carry the baby. There is a technical problem raised by SCI, that the project machinery is not capable of dealing with ammonia nitrate. There is also the TIDCO problem of finding a promoter withont getting involved in Swiss collaboration for which a technical knowhow fee of Rs. 50 lakh is being paid. The plant will have a capacity of 1000+PB and incorporate the state of the art technology. *Third, the state match industry* faces a serious crisis due to the intense rivalry between small scale units and cottage units in the industry. The units have accumulated Rs. 10 to 20 crores of stocks and their distress selling by all units by slashing the rate by 15 to 20 per cent, which also results in their not being able to pay wages to the workers or dues to the raw material suppliers. On top the dealers are not lifting stocks, as they are expecting the government to make some duty reductions. *Fourth,* the Comptroller and Auditor General in his report to Parliament poses the cumulative loss suffered by the *Salem Steel Plant* at Rs. 25.38 crores which he attributes to the delay in the sanction and establishment of the second sendzimir - (cold rolling) mill, leading to under utilization of the other facilities created in stage I of the project. The report also points to certain provisions in the Plan such as the coal inspection and dividing line as being unnecessary and wasteful of resources. *Fifth, TIDCO* earlier referred to is slowing down on its approved programme of disinvestment. One reason for this is the current uncertainty in the capital market following the stock scam but there are other factors. Its disinvestment of its 9 per cent holding from SPIC did not realise proper value, its disinvestment of the 100 per cent state owned TANCEM has been stalled by the opposition of the workers who have obtained a stay order of the court, its proposal to disinvest of its 100 per cent holding in Tamil Nadu explosives has not been met with success and is still held up. *Sixth,* as referenced earlier, *MRF* has been charged with indulging in restricted trade practices and undue profiteering by the MRTP commission. This is one of the few cases tnat the commission is taking up (after its reorganisation) charging MRF with "maintaining prices at an unreasonable level, and limiting and reducing production, supply or distribution". *Seventh,* as reported in the last 12 issues of the Bulletin, the government's decision to canalise *the granite trade* continues to lead to protest and unrest in the industry. The canalisation, according to the government, is aimed at conserving this non renewable resource and save it from cut throat competition. Also a clear export price has been levied which is likely to lead to litigation. The issue is serious as granite exports bring in considerable foreign exchange and Tamil Nadu with the best granite in the country will be losing heavily under this policy which seems to have been decided upon in a hurry without consulting the union government which in a statement last month has announced its criteria of deregulating minerals now regulated for the public sector. *Eighth,* the entire *automobile ancillary industry* in the small sector in the state, including well established manufacturers like TVS, as refered to earlier is faced with a severe recession, as a result of falling automobile sales, the passenger car, I.C.V, HCV and 2 wheelers. The worst hit are the 50 skilled parts manufacturers based in the Ambattur industrial estate. Lucas TVS, Ashok Leyland, TELCO are all cutting back orders as a result. *Ninth,* the absence of the single window clearing facility is holding up the start of many industries. The single window in neighbouring, Karnataka is functioning and the Karnataka government was able to establish 17 companies invest-

ing Rs. 141 crores. These includ ed the Ranauq singh group, the Amritanjan group and subsidiaries of Unilever and Hindustan Lever.

Thus in July the negative features of the state's industrialisation was more evenly balanced with the recession hitting all industries, large, medium and small and particularly in the automobile industry leading to cutting off the second shifts, laying off casual labourers and even reducing wages, the granite policy mess and pauses in disinvestment holding industrial development back.

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IV. Education, Science and Health

Educational reforms

The taskforce of CABE set up by its chairman on the revision of the Programme of Action have completed their work. The consolidated report of the task force is being considered by CABE at a meeting on August 8. On the basis of its decision, the Programme of Action is to be submitted to Parliament. At the higher education level, under the guidance and encouragement of UGC, three major reforms are being contemplated. First, in order to bring about improved quality and a minimum uniformity as between universities the UGC is introducing validation tests at the undergraduate and post graduate levels from 1993-94. The admission to the post graduate course will be entirely based on the performance in the tests plus an interview in each case. This involves a lot of work to create the infrastructure in each state and university, starting with choosing the university in each state to be the nodal agency on organising the validation test. Second, there is to be a fresh approach to examination reform. A check and balance mechanism is to be set up to scrutinise the syllabi and question paper of different universities with the help of experts. Some years back (over 12 years ago) the UGC had asked all universities in the country to plan and implement what is called minimum examination reform programme as a redesign of syllabi and question papers. Now those which have not done this are required to take steps in this regard. The Academic Staff College attached to the universities have been asked by the UGC to organise workshops in collaboration with the examination reform units of universities for orienting teacherson examination reform, because the success of the programme, as all reform programmes, depends on the understanding and cooperation of the teachers. Third and related, the UGC has asked all the university departments and autonomous colleges to introduce such reforms as the development of question banks, methods for continuous internal evaluation, the grading system from the academic year 1993-94. This will also apply to the post graduate courses, affiliated colleges and will be extended to the undergraduate stage from 1995-96. Now that the UCG has taken responsibility for the reform, and with its financial power it should become effective. At the school level the state government has started the first school of excellence in Dharmapuri starting from class VI. Each district is to have such a school. (patterned on the Navodhya Vidyalaya).

Adult education

The government called the attention of Parliament to the census data on adult literacy which touched 32.11 per cent in 1991 as the rate, a 8.55 per cent rise over the 1981 census. Female literacy increased from 29.75 per cent in 1981 to 39.42 per cent in 1991 - an increase of 9.67 per cent during the decade. The adult literacy programme is developing in full force in the country under the impetus of the Total Literacy Programme in each district and the campaign of BGVS. In Tamil Nadu 8 districts are undertaking the Total Literacy Programme. Pudukottai will be declared a fully literate district in early August followed by Pasumpon Muthuramalingam.

Technical education

A Canada-India cooperation project to upgrade 12 polytechnics in Tamil Nadu, Kerala and Karnataka is under way and will be extended in time to other states. One rather regretful development is the hike in capitation fees collected by privately run engineering and medical colleges. The capitation fee charged in the self financing medical college at Rs. 7-9 lakhs per seat, part of it being paid in accounted money and part of it in unaccounted money. In the 36 self financing engineering colleges in the state the capitation fee is Rs. 1 lakh. In view of the good CBSE and state Board High schools results in the +2 examination, there is a rush for admission to these colleges. The Supreme Court has declared capitation fee collection contrary to the equality provision of the constitution. But as long as we have an unequal society, the ability to pay capitation fees by students from well to do families mainly reflects this fact. As the capitation fee is paid by some of the well to do, there is no objection to it provided it is used for development of the college, its buildings, equipment, library and staff and not pocketed by the management. This could be one means of reducing the heavy government subsidy of technical education. In AP at the end of July, the government permitted 12 new private medical colleges with a student in take of 1200. The managements can fill 50 per cent of seats by acceptanace of donations, which is another form of capitation fees. The government also sanctioned 8 private dental colleges with an intake of 40 students in each college. The opposition to this came from medical students and medical practitioners who fear that their earnings will decrease. Again provided colleges conform to the Indian Medical Council norms, there should be no objection to increase in the number of doctors as that will help some of the people better (India has one of the lower doctor people ratio among the industrial and newly industrial countries) and help to bring down medical fees and charges. A Rs. 15 crore software development education and training centre is being set in Trivandrum by an NRI who is also chairman, International Management Resources in the US. To help enhance power generation, BHEL has a customers training programme under the Human Resources Development centre in its manufacturing units in Bhopal, Tiruchi, Hyderabad, Hardwar and Mangalore. It has so far trained over 2000 engineers and technicians from all over the country.

Science

In science, the major event was the launching of the space craft, INSAT-2A on July 10, with the French launch vehicle Ariane carrying it. All arrangements worked well and to specification. On July 28 it reached its appointed slot and is now orbitting the earth. The 6 extended (-band transponders on board INSAT-2C are working satisfactorily. The 12 normal C-band transponders have been switched out performing well. INSAT-2C thus makes available a continuing satellite service - for remote sensing, mapping resources, for telecommunication and telemetry and for radio and television purposes.

Health

Using the World Population Day, July 11 - government, medical personnel, voluntary agencies and social activists joined in a campaign for population control by taking the population awareness and family limitation programme to the rural areas and the streets in the towns. The key role of women - their age of marriage, their education and level of literacy, their employment opportunities are to be particularly developed as thrust areas in the coming year. Madras city reports that maternal cases in the first six months of 1992 have increased to 28,030 from 20,233 in January - June 1991. This increase is despite the 6 per cent reduction in malaria caused by the plasmodium parasites. The Corporation attributes the rise to improved and increased surveillance. There are some 7 pockets in the city which keep increasing malarial transmission and need special anti malarial treatment.

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V. Employment and Labour Relations

The employment estimates in VIII Plan- 8 millions in the first 2 years, 9 million in the last 7 years and 10 million after the Plan-are based on the assumptions of employment elasticity of 0.50 for agriculture, 0.88 for manufacturing and 0.70 for the services. But compared to the actuals in 1983 to 1987-88 which were 0.36 for agriculture, 0.26 for manufacture and 0.42 for services-overall 0.31 against the VIII Plan target of 0.47, the employment estimates may be somewhat optimistic. The employment elasticity is unlikely to improve at the rate forecast. The government reports that it has finalised the much awaited golden handshake scheme for public sector units which will cost Rs. 700 crores. About 4.5 lakh of the 23 lakhs in central, public sector undertaking are found to be redundant including 3 lakh surplus manpower identified in 67 public sector enterprises. The budget provides Rs. 400 crores for the golden handshake scheme. Now the government should negotiate with the trade unions and begin to operate the quite viable scheme. A Planning Commission study of JRY-the main employment generating scheme in the rural areas shows that it has been able to provide work on an average of only 16 days in a year - the gram panchayats provided work for 11.44

days for an unemployed person in 1989-90 and 15.68 days in 1990-91. More than 50 per cent of JRY funds are being used only during last quarter of the year when major works are taken-up. Hence it is not surprising that no adequate attention is given to maintainence of assets. The study finds 56 per cent of the assets not upto the mark, but 80 per cent of beneficiaries said they found the assets useful. That the proportion of man days of employment of SC&ST to the total mandays of generated employment being 50 per cent was an encouraging finding. The continuous monitoring and periodic evaluation should concentrate on the weakness of the programme.

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VI. Other Items

AIR autobiography

AIR has initiated an unusual programme of asking selected persons to record their life history not for broadcasting but for a historical and archival record. This is a strenous programme involving 4 hours on 4 days of preparatory recounting of the life history in the presence of a questionnaire followed by recording the details of the life work on a life style from the beginning, the birth to the present day. It will be interesting to future generations to wade through these archival memoirs of the persons selected for the purpose.

NABARD

The National Bank for Agriculture and Rural Development celebrated its first decade in July 1992 with a symposium on the economy and the role of the Bank. There was a brief press note on the 10 year achievement of the Bank, the most important being its innovative scheme which combined agricultural development and ecological preservation, what is now, after RIO conference, called Sustainable Development. The occasion was used to elaborate on this concept of sustainable development and review the role of the banks in that scheme. The only short coming facing NABARD is the limitation of its resources for the needs of agriculture and rural development which are really endless.

Economy and its review

In July there were a series of interviews and discussions with journalists and newspapers - Opus, Aside, Economic Times, Deccan Herald on the economy with particular reference to the programme of macro economic reforms and structural adjustment. There was first the need to define the 2 terms, the second of which structural adjustment, has never been clearly defined. It was a term coined by the World Bank when helping Mexico with its economy and massive indebteness. It is now settling down to means of giving more space in the economy to the free play of market forces and for contracting the area of government intervention. The need to keep in mind the Indian economy and it special feature of massive poverty was stressed in these reviews.

SRC and TNBCE

There was the two month meeting of the State Resource Centre governing body, when the main business was to review the servicing by the centres of the Total Literacy Programme in the 8 districts and the preparation for its extension to 5 more districts in the following year. The work of the cadre was being evaluated by the chairman who is also head of the university department of Adult and Continuing Education. The Executive Committee of the Tamil Nadu Board of Continuing Education also met at which the work of the 2 literacy projects of the Madras district literacy association and the funds of over Rs. 15 lakhs for their continuation was reviewed. The problem of the regional representatives were reviewed and a new general secretary of the Board was nominated.

IIC

In the India International Centre in July there were two events organised by its Economic Affairs Group. One was the panel discussion on Manpower Planning and Employment. The main point made in the panel was that the techniques of man power planning have remained fairely constant over the 7 plans. The problem of unemployment and underemployment have remained at what was called a low level of 2-3 per cent compared to the 7-8 per cent of the developed countries. But this two percentage covers several millions in a country with a workforce of 400 million. There was on the following day a seminar on India's Population: Beyond Contraceptive Technology. There was agreement that India's population growth must and can be controlled that our past heavy reliance on contraceptives for this purpose has proved a failure : and so there was agreement that the emphasis of population control must shift to developing peoples' awareness, of improving the state and status of women, with special reference to female education and literacy, age of marriage, spacing and cycle of child birth, in all of which the man as well as the woman will be fully involved.

August Development Seminar

" Problems and Prospects of Entrepreneurship Development", the paper for the August seminar by M. G. Balasubramanian together with the summary of the discussion of the paper at the seminar appears as the first article.

Second Article

A note on Industrial Employment appears as the Second Article.

M I D S News

Dr. A. Vaidyanathan attended Governing Council meeting of Centre for Development Studies, Trivandrum, on 10th August, 1992.

He also gave six Lectures on Agriculture to the UGC Refresher Course for College teachers, Gokhale Institute of Politics and Economics, Pune, from 4th to 6th September, 1992.

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Mr. S. Guhan gave two talks on issues relating to the Ramachandra Medical College on 26th and 27th August. Delivered Fr. Tong Memorial Oration at the Voluntary Health Association of India, New Delhi on 4th September.

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Dr. Nasir Tyabji was invited to speak on "Foreign Collaborations and Technological Absorption in the 1980s" at the Nehru Memorial Museum and Library, on September 8, 1992. On September 9, he spoke on the theme of "Industrial Development in Madras Presidency" at the National Institute of Science, Technology and Development Studies, New Delhi.

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Dr. P. Radhakrishnan attended a consultation on Religious Fundamentalism held at the Ecumenical Christian Centre, Bangalore, from Sep. 1 to 4. and was a discussant for a presentation on Hinduism.

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Mr. S. Subramanian presented a paper titled "Reckoning Discrimination in the Measurement of Poverty" at the Tenth World Congress of the International Economic Association held at Moscow between 24th and 28th of August, 1992.

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Dr. S. Janakarajan presented a Paper in a workshop on *"Commodity, Exchange and Food Systems in Developing Countries"* jointly organised by the Manchester School of Economics, England and CIRAD, France held at Montpellies, France, during 31st August - 4th September, 1992.

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Dr. T. R. Balakrishnan, Professor of Sociology, University of Western Contorio, Canada presented a seminar at MIDS on "Third World Immigration to Canada" on 3rd September, 1992.

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August Development Seminar

Problems and Prospects of Entrepreneurship

by

M. G. Balasubramanian
Chairman, EIAMS Pvt. Ltd., Madras.

1. At the outset, one should be clear about what we mean by the words "entrepreneur" and "entrepreneurship". Contrary to popular belief, "entrepreneur" is not derived from enterprise. It is actually a French word. It is not known how this French Word came into vogue in English without an equivalent English Word.

2. An entrepreneur is considered a fifth factor of production in an enterprise, the other four factors being Land, Capital Machinery and Men. Economists, Political Scientists, Sociologists and Social Psychologists have been describing an entrepreneur from the point of view of their subject of speciality.

3. I would like to give a very simple definition for "entrepreneur". An "entrepreneur" is the person who ;

i) identifies his line of activity;

ii) makes investment in the activity; and

iii) manages the economic activity.

Entrepreneurship is basically an ability to identify an investment opportunity, to establish, organise and run an enterprise to contribute to economic growth.

4. To give characteristics of a successful entreprenuer is as easy/or as difficult as in the case of a successful doctor or a lawyer or an administrator ar a politician. In any walk of life, no two persons will conform to a set pattern. A successful small scale entrepreneur may be a professional or a non-professional, may belong to an affluent family or may be of humble origin may be urban-based or rural-rooted. However, studies conducted on entrepreneur show that there are certain characteristics which, if present in an entrepreneur, contribute to his/her success.

5. In the Indian conditions, the three most important characteristics for an entrepreneur to be successful are :

Self-Confidence

Self-Confidence is the foremost quality that an entrepreneur should possess. It should not be confused with a sense of bravado that nothing is impossible to achieve. A born pessimist or a misanthrope may not take the needed risk which any business calls for. A person with self-confidence realises that he is competent and has the ability to do the particular task, is aware of the impediments he may have to face and feels that he would not be deterred by such impediments which he is capable of getting over when he faces them.

Money Sense

The next quality of an entrepreneur should possess is a "good money sense". This means that the person should be careful and prudent in spending the borrowed money with such care and diligence as he would his own money. Quite often, it has been found there is a splurge of expenditure on non-productive purposes in the initial stages when a project is sanctioned with the result that when money is really needed here is nothing in the kitty. With the prevailing impression created that the loan from Government or any of its agencies is only a deferred subsidy, a borrower spends the borrowed money in a manner that he would not spend his own money. Many entrepreneurs do not keep regular accounts. One study made by SIPCOT revealed that 95% of entrepreneurs had not kept any accounts at all. The result is that they do not know how they have spent the money so far.

Reserve Resourses

The third and most important factor is that an entrepreneur must have adequate reserve resources which he should be able to requisition at short notice. It is not uncommon that there is considerable time lag between the date of formulation of a project and the date of its implementation. In the interrugnum, as we are in an era of continually rising prices, cost of plant and machinery go up. This pushes up the project cost. Quite often, projects are formulated on the assumption that entrepreneur would get on the due dates, the incentives and concessions announced by the Government. It has however been the common experience that these incentives/concessions are never received on the promised time and more particularly, the full amount a person is entitled to, does not reach the beneficiary. This is the environment in which we are presently working and no immediate dramatic changes are expected in the near future. When there is a paucity of money with the promoter, the production is affected, interest burden increases, the outside liabilities remain unpaid, the unit begins to limp and finally comes to a grinding halt. It is therefore necessary and prudent that a person should plan the project *without* reckoning the financial concessions / incentives from the Government and have at least 15% of the project cost easily accessible as reserve. This will help the entrepreneur to execute the project with the minimum time lag and also meet the shortfall or working capital requirement, when the bank's assistance fall short of the actual requirement.

6. Coming to the problems faced by entrepreneurs, they are many. They broadly come under six categories with reference to the person/agency that causes the problem.

(a) First is problem created by the entrepreneur himself.

They are:

(i) Deficiency in Project Formulation

e.g. a. Wrong location :
b. Faulty selection of product:
c. Sub-optimal plant capacity;
d. Low equity base;
e. Competition from the well-established large scale units in the line not anticipated.

(ii) Deficiency in Project Implementation

e.g. a. Defective machinery;
b. Mis-matching of plant and machinery;

c. Delay in implementation;
d. Over-run in the project cost.

(iii) Deficiency in Project Operation

e.g. a. Defects in Production
b. Inadequate planning of marketing efforts;
c. Poor quality of products;
d. High rate of rejection/rework;
e. Poor costing and accounting;
f. Inadequate working capital;
g. Accumulation of dead stock;
h. Overdue payments from debtors.

(iv) Deficiency in Project Management

e.g. a. Promoter's poor entrepreneurial qualities;
b. Questionable integrity of promoters;
c. Promoters not wholeheartedly committed to the project;
d. Dissension and discord amongst the promoters;
e. Poor man-management, leading rapid turnover, of personnel in particular, technical;
i. Poor industrial relations.

7. In any endeavour it is the ability and quality of a man behind it that determines its success or failure. This is more so in an economic activity whether he be called the promoter, sponsor or entrepreneur occupies the centre stage. Partly the lack of enthusiasm on the part of banks to render assistance to a SSI unit is due to lack of confidence in the ability of the promoter. The reluctance on the part of an assisting bank to assist a rehabilitation programme of a sick unit is, due to an innate distruct in the entrepreneur who has failed to make the grade.

8. It is no reflection on the individual that everyone cannot be an entrepreneur just as everyone cannot be a successful lawyer, or doctor, or politician. It is equally true that everyone cannot also be turned into an entrepreneur. To be a successful entrepreneur, certain positive qualities are required. Equally, certain harmful characteristics contribute to failure. The obvious course is to choose the right persons and give them proper training before they become entrepreneurs.

9. (a) Identification and selection of entrepreneurs is crucial to entrepreneurial development. Such identification and selection should be done on a scientific basis. There should be a screening of the potential entrepreneurs at the district level by a committee, consisting of the General Manager, District Industries Centre, representatives of SIDCO and TIIC and a Senior Manager of the Bank having the largest number of branches in the district. This Committee should meet on a fixed day in a week or fortnight depending upon the circumstances, to screen the potential entrepreneurs. The important characteristics to be borne in mind while assessing the potential entrepreneurs are the following :

(i) Adequate financial background, i.e., ability by himself or with the assistance of friends and relatives, to raise the needed margin money, without taking to account the subsidies ;
(ii) Knowledge, skill and attitude towards business;
(iii) Marketing knowledge and capabilities;
(iv) Practical experience;

(v) Family background;

(vi) Determination;

(vii) Self-Confidence;

(viii) Capable of hardwork

(ix) Zeal to be self-employed not as a simple alternative to self-employment;

(x) Integrity and honesty.

(b) There should be a written test to evaluate the above qualities and marks assigned on the following basis:

	Marks
(i) Knowledge, skill and attitude towards business	25
(ii) Past experience	20
(iii) Efforts so far made towards starting an enterprise	20
(iv) Psychological:	
a. Need for achievement	5
b. Risk taking	5
c. Personal efficiency	5
(v) Educational background	10
(vi) Family background	5
(vii) Social participation and leadership skill	5
Total :	100

(c) There should be a personal interview to test the following characteristics, for each of which maximum mark suggested is:

	Marks
i) Physique and general personality	5
ii) Present activities	5
iii) Zeal for self-employment	5
iv) Knowledge of proposed enterprise	5
v) Immediate possibilities of starting the enterprise	5
vi) Logic or rationality	5
vii) Financial support he can muster	10
viii) Reaction in case of a failure	10
Total	50

10. (a) The candidates who have passed the screening test should be given a training programme. Entrepreneurial Development Programme (EDPs) is essentially intended to give an exposure to a prospective entrepreneur on the several aspects of establishing, organising and running an enterprise to achieve adequate returns. This knowledge helps to build up a certain degree of confidence in the individual who will be entering a new and hitherto unfamiliar area. The need for entrepreneurial Development in our country was felt in early 1950.

An EDP should broadly cover the following:

i) Choice of location of the Unit;

ii) Product Selection;

iii) Choice of process and machinery;

iv) Funding of the project;

v) Matters connected with the registration and establishment on the project with particular reference to rules and regulations to be compiled with and the clearances to be obtained from several ogencies; and

vi) Marketing of the product. Gathering of marketing intelligence and evolving marketing strategy for the product selected, taking into account the market competition.

(b) Here are, a few suggestions on the manner of conducting EDPs.

(i) In order to motivate the trainees, a very exaggerated picture of self-employment opportunities is given during EDP. This is certainly not "motivation" in my view. An entrepreneur gets a jolt when he finds that the realities are nowhere what he was told during the EDP. The result is that the entrepreneur feels that he had been misled by glib sales talk during EDP. EDP should give only a balanced picture of both the difficulties and pleasures of becoming self-employment based on his own assessment.

(ii) when Officers from the Factories Inspectorate, Commercial Taxes, Central Excise address the EDP trainees, their general approach is to stress more on the penal provisions of the respective enactments with which they are concerned, than on the beneficial aspects of the enactments. The stress on penal provisions make an adverse impact on the trainees. Quite a few, of the EDP trainees even ask if becoming an entrepreneur means facing prosecution under several laws, we would rather not be entrepreneurs. The suggestion therefore is that in the EDP programme, only reference to the existence of these enactments and salient features be brought out in the background notes.

(iii) Another aspect requiring special reference is that even though Marketing is very important, marketing content in a EDP, in general, leaves much to be desired. For example, the type of entrepreneur that will be attending EDPs will be mostly from the tiny sector. Very, very rarely such persons will be in export. The time spent in dealing with export markets in EDP is of no use to such trainees. Neither their products, nor their production quantum nor the quality of their products could come anywhere near the export market. Again, there is no point in telling them that the information on the market for the products will be available with the concerned Departments of Government, who, when addressed will give the particulars. To our knowedge no Government Department has any ready information on market or products of tiny sector and much less a Government Department would commit itself in writing when somebody asks for particulars.

(iv) During EDP, the trainees should be provided an opportunity to conduct a market survey of a few select, common products like plastic buckets, bakery items, cement pipes, plastic ware, leather products, readymade garments, washing soap, food items and submit a Market Survey Report.

(v) The contents and duration of a training programme should be structured differently with reference to the type of economic activity and the educational level of the entrepreneur. The objective of EDPs for lower-middle class or rural (landlesss) poor is only for self-employment. The entire unit depends on the skill of the entrepreneur and is not expected to create a "business enterprise" to provide wage employment for others. EDPs for such target groups should be aimed at training them to start a cottage or a house hold industry or tiny service oriented business which can keep the trained persons fully employed and generate income sufficient for the survival of their families. The income from such "enterprise" in most causes, is insufficient to provide surplus and sustained growth. It is not therefore likely to generate wage-employment opportunities for others.

(vi) There is considerable difference in degree between the sort of entrepreneurship required for starting a tiny household

Cottage Industry and managing a small manufacturing unit. This differentiation is of great consequence in designing the training programme for rural poor.

(vii) The same EDP for both Engineering activity and food products will be incongruous. Where the competition in a production from large units is there, the trainining content should lay more stress on quality, cost reduction, timely delivery. In case of other consumable products the stress should be on packaging, creating more market outlets, optimising credit sales etc.

(viii) The written material given should be in basic English and should not use expressions which are bombastic and unfamiliar.

11. (a) The contents and duration of EDPs should vary with refetence to the educational skill level of the trainees and the investmest on the economic activity. Accordingly, three broad categorisation of EDP is suggested:

(b) (i) Category 1

The first category will be for those who intend promoting cottage/household industry and tiny service oriented industries. In these activities, the use of plant & machinery is practically Nil. The entire activity depends upon the skill of the promoter. A brief outline of EDP will be as follows:

(ii) The duration of the training programme need not be more than 5 days of six hours each. In all 30 hrs. The language used during the lecture session should be simple and in "manipravalam".

(iii) Level of education of the target group not being very high, the contents of the training programme should match the absorption capacity of the trainees. The written material should be to the absolute minimum. The basics should be explained through suitable business games and group exercises.

(iv) The course content should be on the following lines:

I. About the Project:
1. Demand for the product within a radius of 25 kms.
2. Local competition for the product.
3. Raw Material:- Availability - Seasonal & non-seasonal
   - Price variation range during seasonal and non-seasonal.
   - Consistency in quality.

II. Marketing:
1. Determining the selling price of the product.
2. Marketing of the product.
3. Credit sales vs. Cash sales.

III. Finance & Accounting:
1. Basic records for keeping track of income and expenditure.
2. Avoidance of material waste.

(v) There is no need to cover the following subjects for the trainees:
Lectures on "entrepreneur", "entrepreneurship",
"achievement motivation" "labour laws",
"Customs", "Central Excise", "Income-Tax",
"Factory Legislation", "Pollution Control".

(c) Category 2 :

(i) The second category of EDP is for persons establishing industries in the tiny sector.

The duration of the training course will be for 2 weeks, i.e. 60 hrs. The language of the lectures should be simple ones and written notes should be kept down to the minimum.

(ii) Theoretical inputs on "entrepreneur", "entrepreneurship", "achievement motivation", "labour laws", should be kept to the minimum. There is no need to cover customs and central excise in the syllabus.

(iii) The details of the Course Contents for Category 2 will be as under:

Topics to be covered in the EDP.

I. About the permissions and licences needed;

II. Determining the annual capacity;

III. Choice of plant & machinery.

IV. *Relating to the Product :*
1. About Raw Materials: Availability - Seasonal/non-seasonal
   - Price variation, during seasonal / non-seasonal;
   - Consistency in quality.
2. Competition in the field;
3. Identifying the demand units/ 'centres'/areas;
4. Shelf life of the product.

V. *Production Area*:
1. Machine cleaning & maintenance.
2. Concept of depreciation;
3. Power consumption;
4. Avoidance of material waste;
5. Minimising work-in-progress;
6. Concept of rework and rejection and their avoidance.

VI *Marketing* :
1. Determining the selling price of the product.
2. Packaging of the product.
3. Marketing arrangement for the product.
4. Credit Sales vs. Cash Sales.

VII. *Finance and Accounting* :
1. Funding of the project;
2. Need to honour financial commitments;
3. Basic book-keeping.

(a) Category 3

(i) The third category will be for those whose investment on plant & machinery will be more than Rs. 5 lakhs.

Candidates should at least have completed XII standard and above.

Duration should be 6 weeks.

The number of trainees for the EDP should be restricted to 25.

(ii) In the first stage, a selection committee will select fifty candidates who have the potential to become entrepreneurs as evidenced by their zeal, project ideas, educational background and financial support they are capable of mustering.

(iii) All the fifty candidates, will have a two day session on entrepreneurship followed by five days exposure to Achievement Motivation.

(iv) In the first week, information input can be provided followed by Opportunity Guidance (OG) input together with OG councelling. Thereafter, the participants can be asked to go out for collecting market data for the product they have selected.

(v) Achievement Motivation Training (AMT) will be conducted after the participants have finalised/conceived the project as such a sequence will help them to finalise their goal after interacting with the external environment. During AMT they can interact with self to find out their own strengths and weaknesses and co-relate the same with the goal that they have set up.

(vi) There will be an interval of two weeks during which period the candidates will do the preliminary market survey of the contemplated project. The project ideas will be firmed up so that the potential entrepreneur has a clear idea of the proposed product. During this period the prospective entrepreneur will be provided with counselling support by the organisation conducting the EDP.

(vii) The fifty candidates will be interviewed by the Selection Committee again to select twenty five out of them, based on their readiness to launch the projects.

(viii) The twenty-five selected candidates will now be given three weeks of training on the various facets of running a self-employment venture covering the following topics :

— Procedures for setting up of SSIs will include Registration of SSIs and all licences, permissions and clearances to be obtained from the various authorities, including power connection and pollution control);

— Production Planning, Production Management, Production Control (will include Productivity and Quality Control);

— Basic records to be maintained for Planning and Control;

— Financial Management (Working Capital Assessment, Cash Management, Inventory Control, Pricing of the Product);

— Basic records to be maintained for accounting purposes;

— Statutory enactments applicable to SSIs (Labour laws, Sales-Tax Act Central Excise Act);

— Product Marketing;

— Field Work, Actual Market Survey of a few selected products by trainees, divided into convenient groups;

— Factory visits;

— Project Report preparation;

— A working session with a group of existing women entrepreneurs.

(ix) The last week will be spent by each of the candidate in finalising (i) the market survey of the project already selected by her and (ii) the project report.

(x) An ideal EDP is one in which the group to be trained is cohesive one in respect of age, educational qualification and industry to be chosen. This may be possible to certain segments in respect of Category 3. As a matter of fact, SISI, Madras, has conducted a number of industry-wise EDPs on Food Products Plastics, Engineering, Electronics. However, in respect of Category 1 and Category 2 to get such a cohesive group of 20-25 may not be practicable.

12. The next in order is the problems raised by the assisting bank.

(a) Some of the criticisms may be exaggerated. Many time an entrepreneur to cover up his own in-efficiency or mis-application of funds or his inability to bring in margin money, puts the blame on the bank. A very common and uniform complaint heard from SSI entrepreneurs is inadequacy of bank assistance. Quite often, the entrepreneur expects the bank to go on funding him even as the finished stocks keep on mounting, in the hope that he will Find a market for his products. All the same, a public organisation cannot brush aside that all criticisms against it are exaggerated and therefore without foundation.

(b) The common complaints against banks are:

(i) At the time of starting a new unit, the working capital sanctioned is less than the optimum. The bank manager tells the entrepreneur to commence his production with what he has been sanctioned. With a promise that the working capital would be increased later. The promised increase rarely materialises. With inadequate working capital the unit begins to limp and eventually closes down the shutters before long. The working capital could be assessed to the optimum extend and cleared, with the actual limits being released as per the performance of the unit. This is rarely done.

(ii) The price of raw material gets increased due to Governmental action or the public sector which has the sole monopoly of the raw material, pushing up the price. Quite often the banker refuses to increase the working capital limits to meet the increase in the raw material price.

(c) There should be an internal mechanism in each bank to redress the grievances of the SSI borrowers. A feeling amongst the SSI borrowers that the enlightened segment of bank officers treat them as second class citizens and the less enlightened treat the borrowers as a lower form of humanity has to be removed. The borrower feels that by paying interests, he is paying for the services of the bank because part of the interest is to meet bank's expenses. He therefore feels that he is entitled to have his grievance properly looked into. The present adverse relationship between the borrower and his banker has to be erased. It is sad indeed that the banking system which contains a good part of the best products from our universities should have acquired such a reputation from the SSI entrepreneurs

(d) I will now give my recommendations on the grievance procedure. The Central Government has attached so much importance for the redressal of grievances in Government Departments that they have created a separate Department of Grievances, whose administrative head is in the rank of a Secretary to Government of India. In defence of the extent procedure, it is argued that the banking system being a sensitive one, a grievance procedure as elsewhere is not possible. It has to be made possible, as otherwise the grievance will grow to such an extent that it will reach an explosive stage. Sensitive nature of the industry cannot be an excuse not to listen to the grievance of the customers. The other reason given is that the Senior Officer of the bank have a clients' meet which is a forum provided to the borrowers to air their grievances. A meeting with a large number of persons is not a suitable forum for redressing individual grievances. Further, a borrower would not like to voice his individual grievance which will necessarily involve to criticising the decision of the manager who is also present, in an open forum, attended by many. Despite his grievance, he has his loyalty to his manager.

(e) (i) I will define a 'Grievance' means a claim or ascertain by a borrower/customer that he has sustained injustice or undue hardship in consequence of maladministration.

(ii) 'Maladministration' means a decision taken or not taken, on a representation made by a borrower/customer by a bank officer in the exercise of powers vested in him, when such a decision or non-decision has in the opinion of the borrower/customer has adversely affected his interest or when the procedure or practice is unjust, oppressive or improperly discriminatory or where there has been negligence or undue delay in taking action/decision.

(iii) 'Undue delay' means the time taken beyond the reasonable time required to take a decision/action in the normal course.

(iv) Whenever a client of the bank has a grievance, he should be free to put it in writing to the Manager, without being a marked out man. The Manager, if he can redress the grievance should redress the same within fifteen days of the receipt of the grievance. If it is beyond his powers or if the manager considers that the grievance is one that cannot be redressed, he should submit a report to a higher officer, designated as the Grievance Officer, with his remarks. The Grievance Officer, should convey his decision within fifteen days to the Branch Manager, who will communicate the decision to the client. There should be an attitudinal change on the part of the Manager that he would not bear a grudge against the customer that he had the audacity to question his decision. He should remember that the decision of even of the highest Court is questioned in the Appellate judicial forum. No stigma is attached to the Judge against whose judgement the appeal is filed, even when the appeal succeeds. There is a pronounced tendency in the banking system to support the action of the Manager, irrespective of merit of the case. The Grievance Officer would not be doing a fair thing to himself or to the Manager or to the client or to the bank by blindly supporting every action of the Manager.

13. The third is the assisting financial institution.

In respect of the assisting financial institution, in the absence of very systamatic monitoring of the units the sickness comes to be known to the institution, only at a late stage. An effective monitoring system as described below is necessary to take remedial measures before incipient sickness takes finer root.

Once a loan is drawn, the borrower should submit a monthly report (Form A) till he reaches the Production stage and in (Form B) after commencing commercial production.

FORM A

MONTHLY REPORT BY THE ENTREPRENEUR ON HIS UNIT BEFORE PRODUCTION COMMENCES

Report for the month of ....

1. Name of the Unit :
2. Location of the Factory :
3. Product to be manufactured :
4. Loan amount sanctioned :
5. Date of sanction :
6. Details of plant & machinery :

(i) **Actually installed :**

Description	Price	Suppliers name	Date of supply	when installed
1	2	3	4	5

(ii) **Yet to arrive :**

Description	Price	Suppliers name	Date of supply	when expected to be installed
1	2	3	4	5

7. a) Has power connection been secured?
   b) If not, when expected.
8. Supervisory and skilled staff already in position.
9. Specify the date by which commercial production is expected.
10. Any difficulties faced ?

FORM B

MONTHLY REPORT BY THE ENTREPRENEUR AFTER PRODUCTION HAS COMMENCED

Report for the month of.............................

1. Name of the Unit :
2. Location of the Unit :
3. Product manufactured :
4. Monthly capacity of the Unit :
5. Monthly capacity achieved in the last three months :
6. Electricity dues payment :
7. Rental/hire purchase instalment for the building :
8. Raw materials on hand : Description claiming value
9. Finished stock on hand :
10. Difficulties any faced :

a) The field officers of the Directorate of Industries, TIIC, SIDCO, in the districts should visit a minimum number of units, both new and old and send a report on their quick impression about the unit to the assisting bank and institution. When called for, detailed investigation will be taken up by the TIIC or the assisting bank.

b) We would suggest the following proforma for the report on visits :

PART A

Report on surprise visits to SSI Unit

Date :

Time of visit :

1. Name of the Unit :
2. Location of the Unit :
3. Date of establishment :
4. Product manufactured :

PART B

Impressions gained at the time of the visit

1. Was the unit working : Yes/No.
2. i. How many machines were working:
   ii. How many of them were not working :
   iii. No. of employees at the time of visit :
      1. Supervisors
      2. Skilled workers
      3. Others
   iv. How was the shop floor : Tidy/Haphazard/Dirty
   v. Was power available at the time of visit:
   vi. Is water available for the unit:
   vii. Has the unit sufficient raw meterials:
   viii. Is there accumulation of finished work?
   ix. Any special problems faced by the unit during casual talks with employees/promoter?
   x. *General Impression* :
      a) Doing well
      b) Managing to survive
      c) In deep trouble

3. We are of the view that such systematic monitoring will alert the borrower that the assisting institution does not observe a policy of *laissez faire*, by allowing the borrower the freedom to do what he likes with the borrowed funds. It will also give an early warning to the assisting organisation as to the early steps to be taken to safeguard its funds committed in the unit.

14. Problems created by the State Government:

(a) The subsidies provided by the State Government do not reach the beneficiary on time.

(b) Whenever the Government formulate a policy in respect of measures to assist the industry in the State, the need of the SSIs also should be considered at the same time and the decisions in regard to the large and SSIs announced simultaneously. For example, when Government announced subsidies in regard to generator sets, orders in respect of large industries were issued, after a lapse of a few months, on representations by SSIs, the concession was extended to SSIs also.

(c) The procedure for reimbursing subsidy should be the same both for the large scale and small scale. In a few types of subsidies, the large scale industries are permitted to adjust the subsidy even at the time of payment of charges/tax. In respect of SSIs on the other hand, they have to pay the amount and then get the subsidy by way of refund. Actually, the cash crunch is felt more by SSIs with its limited resources and therefore adjustment of subsidy at the time of payment will really benefit SSIs.

(d) The impact of sales-tax on small scale units is such that because of the high rates in our State, it would be advantageous in quite a few cases to get raw materials and components from outside the State, attracting only the Central Sales Tax. This matter requires a deed but quick study as a balance will have to be struck between the mobilisation of revenues by having high rate of sales-tax on the one hand and the hardship caused to SSIs by such rates as they loose in the competition with the suppliers from outside the State, on the other hand.

(e) Turnover tax on small scale industries is yet another cess which affects SSIs as turnover tax cannot be passed on to the buyers. A point has been raised that if the tax on turnover is not allowed to be passed on and has to be borne by the producer, then it may amount to Income-Tax Corporate-Tax. The stipulation that it should be borne by the producer may be removed and the turnover tax be allowed to be passed on to the purchaser, at least in respect of SSI units

15. Problems created by the Central Government:

(a) It was complained that the Central Excise rules are revised too often and very many notifications are issued that it was difficult to keep track of the plethora of notifications.

(b) Some decisions taken without examining fully the implications of change in the policy are announced to the detriment of SSI units. An instance is the case of HDPE sack manufacturing units. A large number of HDPE sack manufacturing units, involving significant investment on plant & machinery were established to meet the indigenous demand. A sudden decision of Central Government insisting on the use of Jute Bags for packaging 70% of cement, cent per cent Urea, has made all these units sick, as the market for HDPE bags disappeared overnight.

(c) The turnover limit for levying excise duty really gives room for a lot of avoidable problems. It would be better that, even when production is beyond the exempted limit, excise duty is levied only on the amount over the exempted limit. Then the tendency to manipulate production within the exempted limit or getting over this by having many units producing within the exempted limit could be avoided. Any loss of revenue on account of this can be partly made good by slight increase in the rates and partly will be made good by reduction in the avoidance of levy, by other manipulations.

16. Problems due to other causes :

(a) (i) Bunching of Sanction of Payments :

There is a tendency on the part of financial institutions to sanction a number of projects for the same product near about the same time. This has been the cause to show the seeds for sickness because there is keen competition for the raw materials, the same machinery supplier is approached for the supply of plant and machinery and a cut throat competition on sets in amongst the new entrants.

(ii) A regular annual exercise be done to identify the industries which have good scope, industries which could be thought of only if an entrepreneur with proved competence is forthcoming. In the month of January of every year in each district a committee consisting of the General Manager, DIC, representatives of Banks, TIIC, SIDCO, SISI and Small Scale Industries Association of the District should review the performance of SSIUs in the district in the previous calender year and identify the industries for which there is no scope, and industries in which there is overcrowding. These reports will be considered and reviewed by a state level committee comprising the Director of Industries, Managing Director, TIIC, Chairman & Managing Director, Director, SISI, representatives of State Bank of India, Indian Bank and Indian Overseas Bank. This Committee will do a similar exercise for the State as a whole. We consider that this annual exercise will prove very successful.

(b) Defective Machinery :

Quite often defective machinery purchased is one of the causes of sickness. We would suggest that an approved list of plan and machinery suppliers should be draw up. Application should be called or registration with an application fee of Rs. 500, which will meet at least part of the expenses on this exercise. The applicant should be asked to give details of equipment with him, the number of technical staff and skilled workers employed, the parties to whom supplies have been effected. Then a technical group consisting of representatives from DIC, SISI, SIDCO, TIIC should scrutinise the applications, visit the factories which have been cleared in the initial screening, obtain the opinion of the parties to whom the machinery manufacturers have supplied earlier, and prepare an approved list. This will atleast control spurious machinery manufacturers. Whatever difficulties that may be in implementation could and should be overcome to prevent the exploitation of the SSIs entrepreneurs by the spurious manufacturers.

(c) Delayed payment of bills and factoring :

One of the important causes that directly contributes to the financial crunch faced by the SSI units is delayed payments from those units to whom SSI units have effected supplies. When the bills are delayed credit given by the Bank is reversed and to that extent the limits come down, choking the free flow of funds.

The Central Government has on the anvil a statute to ensure payment of SSI dues by the mother units to whom supplies have been effected. Such an enactment in Japan proved to be a total failure. If an SSI takes the mother unit to a Court of law, and gets it punished, it is needless to say that the SSI concerned would no longer be a supplier to that mother unit. Not only this, other units would not also encourage an SSI which has taken a mother unit to Court. While for willful non-payment the threat of court action may provide the remedy. When the units suffer from resources crunch, they normally resort to credit purchase and postponing payments to their component suppliers. The classic example for the component suppliers bills being delayed are the State Electricity Boards and some of the public sector enterprises. The only remedy for prompt payment is to introduce the factoring services on which the Government, RBI & Commercial Banks are dragging their feet.

17. Prospects

The annual employment growth in the public sector and in the organised private sector have been tardy. (Public sector includes the Central Government, State Government, local bodies and public sector concerns). The total annual growth in the years of 1986-87 and 1987-88 is given in the following Table :

	Public Sector	Private Sector	Total Organised Sector
1985-86	4,14,000	64,000	4,78,000
1986-87	3,42,000	-9,000	3,33,000
1987-88	3,06,009	27,000	3,33,000

It will be seen that the new job opportunities in the organised sector fall far short of the number entering the employment market every year. The immediate prospect of any increases in public sector concerns, whether in manufacturing, commercial banking, insurance appear to be dim. In the result, the only way for those with professional qualifications, collegiate education, high school passed etc. who enter the employment market is to engage themselves in remunerative activities through self-employment. There are self-employment opportunities in plenty, provided a person is able to identify the growth potential in the existing activities and introduce new activities.

More importantly the Government agencies dealing with SSIs should re-orient their attitudes and go all out to assist, encourage, and foster self employed entrepreneurs. Those dealing with SSIs, in financial institutions and banks should be carefully chosen, if need be, putting them through a psychiatrist test, to ensure that they have the proper mental frame to assist the small entrepreneurs. Quite often, some of these persons are misfits for their jobs as they always take an obstructive and negative attitude.

Summary of Discussion

The author at the outset expressed concern over the limited realisation for the need for self employment in the country. While on the one hand employment auenues were slowly shrinking, the private sector had its own limitations for creation of additional employment due to the modernisation and mechanisation process that was being given priority.

The small scale sector has a vital role to play in the economy but the various political parties have only paid lip service to promote small scale units in the country, he added. The various concessions in the form of subsidies announced by the government from time to time have by and large benefited the large units when compared to the small units.

The author was also of the view that everyone could not be a successful entrepreneur as it required special talents. For the various aspects of training programme, the stress on achievement motivation, skill formation and the development of a cultivation for money sense is important. The various training programmes have also to be systematically changed based on the exigencies of the situation. The identification of the 'Entrepreneur' involved a person to know one's own strengths and weaknesses. In the process of such identification, deficiencies could be rectified but monitoring the scheme is equally important. During the discussions that followed a question was raised on the benefits and drawbacks of entrepreneurs in the wake of the recent liberalisation policy announced by the government.

The author mentioned that planning for a crisis should be part and parcel of the system which is not so in our country.

On the question of the crisis of environment and its implications for sustainable agriculture and human development a participant cited the case of Anand type of lobby where Dr. V. Kurien could mobilise and form successful cooperatives as far as white revolution was concerned. Therefore it was necessary to train entrepreneurs and conduct market surveys to improve marketing. Entrepreneurs could also follow the Anand model of forming cooperatives which could serve as an apex association to fight for their cause.

The Chairman while intervening in the discussion mentioned the existence of such small industries organisation in Coimbatore, Erode, Madurai where different target groups exists.

The author also mentioned the existence of number of isolated training programmes in the country but cautioned the need to identify them and channelise their potential in the right direction by imparting the right type of training. For a carpenter it is the skill that really matters and not management training.

Training for a large number of people with different disciplines should equip them not only to gain employment and develop the skill but also to gain confidence and mobility in the profession.

On the question of lack of information on marketing in the syllabus on entrepreneurship it was felt that the marketing syllabus could be undertaken by NGO's under various EDP programmes. The author felt that it should not to part and parcel of the syllabus but optional in nature.

Another participant pointed out the broad areas of research from the theoretical angle of the entrepreneurs. One was relating to the marketable surplus as envisaged by Adam Smith. The main factor is attributed to motivation which is the pillar of extrepreneurship to use resources to produce surplus which must be a time bound task. Secondly, the social culture which helped to produce entrepreneurs to take risks is also very important.

On the question of technocrats who do not make successful entrepreneurs the author mentioned that it was true that technocrats were both good and bad entrepreneurs but the technical expertise had to be matched by marketing, quality improvement and suitable pricing policies. On the question of some communities 'being successful in business in the state it was mentioned that basically they were minority communities who had come to survive by making a livehood.

V. JACOB JOHN

The Changing Dynamics of Industrial Employment : Issues for Consideration*

All sources of data including official ones, affirm the declension/stagnation in organised sector employment during the last decade. An analysis of this problem (in the context of the new economic/industrial policy) is attempted at two levels :-

a) at the macro level - we highlight certain implications consequent upon "opening up" the economy to external competition (pressures);

b) at the micro level - we discuss the need for restructuring processes of production necessitated primarily by the forces of technology and market.

Among the fundamental changes that have occurred in the world economy (elaborated in detail by Peter Druker) and of immense importance to the economy of the LDCs, are, first, that the primary product economy has been 'uncoupled, from the industrial economy; second, in the industrial economy itself, production has been de-linked from employment. For all non-farm commodities (various products, minerals or metals) world demand is shrinking. The amount of raw material needed for a given unit of economic output has been dropping for the entire century except during the war time. In this context the Japanese experience is noteworthy. In 1984 for every unit of industrial production Japan consumed only 60 per cent of the raw materials required for the same volume of industrial production in 1973, eleven years earlier. A related phenomenon is the restructuring in production process leading to a decline in blue-collar employment. Most of the growth in employment in advanced countries is in non-manufacturing sectors. The possibility of further shrinkage in labour force in manufacturing is not ruled out.

At the global level, restructuring of the whole process of manufacturing has given an edge to Japan over the US. Michael Best in his book (The New Competition : Institutions of Industrial Restructuring : 1990) refers to it as the takeover of 'Big Business' by the 'New competition'. According to Best, the New Competition is led by business enterprises based upon different production and organisational concepts. At the centre of the New Competition is the entrepreneurial firm,

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an enterprise that is organized from top to bottom to pursue continuous improvement in methods, products and processes. The entrepreneurial firm seeks a competitive edge by superior product design, which may or may not lead to lower costs but it demands organizational flexibility which in turn requires organisational commitments to problem solving, a persistence to detail and an integration of thinking and doing in work activities.

A trend already discernible elsewhere in the world and not far from our doorstep is the farming out of activities that do not offer opportunities for advancement into fairly senior management and professional position. The corporation in stock market jargon is being "unbundled". Again the Japanese have shown the way as far as the feature of unbundling is concerned. The large Japanese manufacturing companies maintain short term earnings (and employment security for their workers) and long term investments in the future by "out-sourcing". They buy from outside contractors a far larger proportion of their parts than western manufacturers usually do. Thus they are able to cut their costs fast and sharply when they need to, by shifting the burden of short term fluctuations to the outside supplier.

One important fall out of this process of unbundling is that it makes it increasingly irrelevant to talk of the size of the firm in the sense in which it is largely used that is, small versus, the large firm. Using Best's characterization of economies into those based on the management principles of 'Big business' and those on the 'New Competition', we find that both witnessed the emergence of small firms. However under 'Big Business' the small firms were mainly subcontractors with no independent design capabilities; under these conditions a high rate of new firm formation did not signify a force for the restructuring of the economy but an increase in the dependence of small firms on large firms. On the other hand, the small firms of the new Competition are 'elements of a networked association of firms". Here the "institutions of cooperation are as critical as those of individuality".

Turning to the Indian scene, the first thing to note about the country going global is that while domestic economic concerns such as unemployment, inflation, nationalization/privatisation will *not* go away, increasingly international and transnational political issues will tend to upstage them. What is dismaying is the inability of the powers that be to come to grips with reality. The widespread failure on the industrial front is not being posed in organisational terms. The announcement of an Industrial Policy Statement simply does not recognise that a deeper production-rooted problem exists.

The manner in which labour is enmeshed with the industrial structure is crucial. In the American system the rise of big business was consequent upon the development of managerial hierarchies and scientific management (read Taylorism) which brought in collective bargaining and the welfare state. In Britain the existence of a powerful trade union movement prior to the establishment of Big Business limited the power of management to reorganise work according to the principles of mass production. In Japan, however, the the intense class struggle that took place was resolved by the establishment of welfare capitalism *within* the firm: by and large the Company relinquished the right to fire workers in exchange for a company union and no resistance to organizational change. The form of the development of industrial capitalism had a powerful effect both on the definition of manager and worker and on the terms of relation between the firms and the government. The occupational pinnacle for a blue collar worker in America and Britain is foreman or front line supervisor, the ranks of management being closed. A career ladder for a worker in a Japanese factory can progress from group leader to production supervisor upto production manager.

The relevance of the above discussion to the Indian context lies in the following :

(a) Technological dynamism implies restructuring of the production process to be effective which cannot but lead to changes in labour requirements (often retrenchment).

(b) Hitherto retrenchment from the 'organized' sector has always meant swelling the ranks of the 'informal' 'unorganized' sector with its attendent evils of low wages, no enforcement of protective legislation, in short, exploitation of the highest order. Neither does the state take care of the retrenched workers.

(c) Even the most powerful of the trade unions in the country work in a rather uncoordinated fashion. It has been noted elsewhere that for any given amount of union power, unemployment is lower if unions and employers coordinate their wage bargaining either across industries or nationally. What works worst of all is strong but uncoordinated unions.

(d) The historically defined antagonistic relationship that characterize Industry and Labour makes it difficult for the industry to break with Taylorism which break is imperative in order to compete on the basis of superior products, higher quality, more reliable delivery times and shorter product development time. The potential for improving the conditions of work has not been systematically pursued by the trade union movement. For example, unions could seek greater job security for their members in exchange for an agreement to develop real production flexibility based on the skill-centred factory.

A grossly neglected area has been the acquisition of skills and the imparting of high quality continuous training. The effect of this cumulative neglect is being particularly felt when industry is now faced with a rapid rate of technological obsolescence and the need to acquire the state of the art knowledge and skills to sustain technological capability of the industry.

The first step in addressing the problem of declining / stagnant employment is a conceptual one. The real causes of the problem have to be distinguished from the apparent ones.

A high level of coordination between Government (read strategic planning) Industry (read private sector) and Labour (read trade unions) is imperative. An Industry Policy Statement has to be *in tandem* with a Labour Policy Statement since restructuring of the production process necessitated by technology is incumbent on restructuring the labour requirements.

In the light of the above discussion the question to be asked of the Industrial

Policy Statement is how the Government intends to operationalize the following commitment it has made, namely,

> "Government will fully protect the interests of labour, enhance their welfare and equip them in all respects to deal with the inevitability of technological change. Labour will be made an equal partner in progress and prosperity. Workers participation in management will be promoted. Workers' cooperatives will be encouraged to participate in packages designed to turn around sick companies. Intensive training, skill development and upgradation programmes will be launched".

The opposition parties including the organized left have still to concretize their opposition to the Government's economic policies with specific proposals. The need for drastic change, an efficient and functioning system which delivers the goods is recognized by one and all. Yet, beyond mouthing the usual generalities/banalities (soverignity of the nation is at stake, the government has surrendered to the dictate of the World Bank/IMF etc.), nothing much by way of an alternative course of action has been put out. If anything, a collective "national evasion of the strains and stresses" on the economic system over the years (due to half hearted and ineffective interventions in the system) have led to such severe and cumulative distortions in investment, income distribution and allocation of resources, that, short of a revolution, first in thinking, followed by action, much of it is irreversible.

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