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State of Affairs of Draught Animal Technology
— Tamil Nadu (India)

Rural Development in the Approach Paper

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EDITORIAL - SOME HIGHLIGHTS

I. General Economic Scene

State

Planning Commission

There was a meeting of the Planning Commission in November to review and approve the 1991-92 annual Plan in order to help the preparation of the budget for that year which is expected to be presented to the Legislative Assembly early in 1991. In reviewing the proposals for each sector/department, it was found that the review of the annual Plan provision could not be undertaken without taking into occount the corresponding Non Plan provision for that area. In this state, this distinction between Plan and Non Plan is termed Part II and Part I schemes. There was general approach on this issue, but because of the urgency facing budget making (reflecting the unstable political conditions), the Part II schemes were reviewed and approved with some changes in the provision for Agriculture, Health and Education. But without the total picture, this was an exercise in a kind of blind man's buff.

Weather and Prices

November witnessed a continuation of the good North East monsoon in the state. As noted in the last issue, in the first fortnight, October 7 — November 2, the state and notably Madras city received the rainfall almost for the entire two months season. After a fortnight's let up, which farmers, city and town dwellers most eagerly welcomed to make up for the disruption of their daily occupations, the monsoon resumed from November 24, not with the same intensity. The rainfall varied over the state, particularly over the coastal areas ranging from a day 10 cm (Trivellore) to 3 cm (Madras, Karaikal, Tiruchi), to the point where Madras city's water storage reservoirs are adequate to allow resumption of daily water supply to city after a 3 year interval. Equally the farming areas of Thanjavur and North Arcot and South Arcot have been receiving plentiful rains. This, along side of the good south west monsoon, should ensure a good economic production activity in the state but the curious matter in the state, as at the all India level, is that the inflationary trend has not been dampened. CSO's April 1990 issue shows that all the price indicators are moving up: the consumer price index industrial workers moving up by two points in February 1990, that for agricultural labourers showing a rather steep fall of 19 points (2.5 per cent) in January but rising by 10 points (1.3 per cent) in February, that for urban non employees remaining relatively stable: over a 12 month period, the highest increase is that suffered by rural labour at 9 per cent. Even so the public feel that those index number do not reflect the price increase almost on a weekly or even daily basis taking place: the heavy rains in October sent vegetable prices soaring, the cut in diesel provision since September has pushed up prices of fish, edible oil etc. These are over and above the rise registered in the index. Could these changes be captured by city, town and village wise data, if collected?

Power

The power situation in the state in November improved ~~due to~~ the good North East monsoon ~~which both~~ helped to bring about increased flows into the hydel reservoirs and which also reduced the peak power demand from the normal 3000 MW to 2600 MW. There was a some short term interruption of power supply due to switching off power in some areas. The other positive element is that the coal scarcity faced by the state's power plants in November was due to the heavy rains which forced a halt in coal loading at the Madras harbour during the 7 days from the end of October to early November. Hence with the break in the monsoon, coal stocks have increased from 1 day stocks to 3-10 days in the Ennore, Mettur and Tuticorin plants. Also with the new agreement signed with Australia on coal supply and imports, the question of the needs of this state's plant, Tuticorin, which is farthest away from the supply source being met at least in part arises. Infact if the coal stock position improves to 1 month stock in the plants, there is the possibility of lifting the 30 per cent power cut on HT users. Also while at the national level, the proposal to amend the Electricity Act to allow the private sector a role in generation has been held up because of the political changes, in the state the government has approved the first 210 MW plant to be operated by G. N. Swamy of Coimbatore. Now the Union should clear this quickly. This project is important not only because it opens the power sector to the private sector in the state but also because on the effectuation of this and other such projects, the industrialisation of the state depends.

At the national level, the two monsoons have brought about some improvement in the power situation, which is a reminder of the dominant influence of the monsoons in all facets of the country's economy — agriculture, fisheries, forestry, irrigation, manufacture, power and domestic comfort. November saw some addition to power generation capacity perspectives in the second unit of the Narora Atomic Power Plant being readied for commissioning and the approval of the 2 mini hydel

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projects in Karnataka which in a sense is even more important for the future. A number of power savings and optimising measures are now being considered and executed in view of the scarcity and shortfall in petroleum and crude resources and the certain reduction in the Eighth Plan power allocation due to the resource crunch, as a possible reduction by 80 per cent over the NTPC's request for Rs. 20,000 crores during the plan period. One such is the programme of energy saving which has been launched with a double focus — on dessiminating information on effective utilisation to cut down on wastage and simple means of economising on energy use — through a massive multi media campaign of seminars and demonstration projects in selected industrial subsectors, the use of energy efficient lighting system and the other focus being energy audit with the active participation of trade and industry and for the agricultural modernisation of 8 million pumpsets in stages — at a faster pace than the current one where only 75,000 pumpsets have been modernised. Already FICCI reports that 28 private firms have applied to SEB for entering power sector. Further an important programme is the life extension of 130 power plants whose boilers are 30 years old which are running at about 40 per cent of their capacities of 20,000 MW and which this extension which result in raising their PLF to 60 per cent adding 4000 MW at a cost of Rs. 3200 crores for the boiler extension, whereas new plants to produce the 4000 MW would cost Rs. 16000 crores, besides their long gestation period. Another energy saving devise is commercial power sharing and the formulation of power pools which will cut across countries like India, Nepal, Bangladesh and Pakistan. These steps on energy saving and optimisation are a late attempt by the country to catch up with power saving devices adopted by other countries. Why should we have to wait for the crude short supply and resource crisis to plan and undertake these essential measures — is an issue to be considered seriously.

Water

The positive effects in the state of the plentiful North East monsoon was referred to. The city's three drinking water reservoirs — Red Hills, Poondi and Sholavaram — were the main beneficiary by early November to the point when because of the continuing rains, the decision was made to provide the city with daily water supply till Pongal when the daily water supply is to be reviewed. Though the total storage in the 3 reservoirs are little over 50 per cent (3610 mcft against 6483 mcft), two of the reservoirs Red Hills and Sholavaram are already full and cannot take any more inflows. There is need for this situation to be examined on a long term and continuing basis so that the catchment areas of the reservoirs are not encroached upon and such encroachments removed and a better storage system for Poondi to be developed. The Telugu Ganga is progressing and its completion in 1993 is essential to meet the full water needs of the city. The rain have also increased the inflows into Mettur, which along with the continuing rains will help the farmers to save the standing samba crop.

Transport

The monsoon has shown up the flimsy and ineffective road works in the state. All roads have been damaged and are full of pot holes which damage all forms of transport and increase their fuel consumption. The main reason for this poor road surface is attributed to the system of contractors who to make quick money do not use effective granite foundation, but sand and mud papered over by tar. This system needs to be reviewed and a system of identifying reliable contractors should be developed and only they should be used -the others being penalised for their poor workmanship. The crude shortage has led PTC to cut its services by some 20 per cent with a limit of 60 kms speed to conserve fuel. On the question of roads, the emerging road transport research results which show that cement concrete roads are cheaper, with lower operational costs and longer life (of about 40 years) should result in a gradual change over to cement concrete roads as in other developed and some developing countries. Another important transport issue is the urgent need to relieve the over congestion of the Madras Port Trust through development of the satellite port at Ennore. The project report for it has been readied by Rail India Technical and Economic Services (RITES) and the decision now should be made by the union government to implement it and decide whether it should be a mono commodity port, or which will be less costly involving an investment of Rs. 290 crores. But with the petro chemical plants developing at Manali and the growing demand for the quick and early transport of coal into the state's power and industrial plants and the need to carry the higher export of iron ore now agreed with Japan, the case for a multi commodity port is strong and should be given the green light.

Small Savings and welfare Development

Are the people of the state really saving more in small savings — up to September the savings are reported at Rs. 272 crores, giving the state a soft loan entitlement from the Union government of Rs. 147 crores during 1990-91 compared to about a quarter of that at Rs. 41 crores in 1989-90. What are the specific savings incentives which have led to this spurt in small savings and why are Kanyakumari, Dindigul and Periyar doing so well ? As between the incentives, the one per cent cash incentive as against the gift coupon for every Rs. 500 invested, which were the more effective draw ? The state should not be lost in the euphoria of this one time record but analyse its constituents to see how small savings can become a long term growth factor for the state not only for its fixed income earners but also in trade and business community, as an alternative to black income and wealth attractions. The government announcement of re-employing 7000 village officers who were terminated five years ago under the previous government is a step in the right direction, if this programme of village development and use of village officers can be insulated from the political changes that characterise all democratic systems. One question that arises is whether the employment of these officers should not be the responsibility of the local bodies as part of the decentralised planning and administration to which we are committed. The other major welfare measure is that under the 3 lakh houses built under the Tamil Nadu Cooperative Rural Housing schemes, the benefits to the rural owner are being increased. At present out of a total Rs. 10,000 per house, Rs. 7000 is given as loan to

be repaid at Rs. 60 per month and Rs. 1500 as government subsidy and Rs. 1500 as owner's payment. The change is that if the beneficiary repays Rs 30 per cent as 50 per cent of the Rs. 7000 loan (Rs. 3500), the rest being subsidy. This revised liberal scheme is being extended also to the 30,000 houses being built this year. Similarly the TN Milk Producers Association are demanding a subsidy of Rs. 10 crores to compensate milk producers for the increase in the procurement price if the price of milk is not raised. It is important that as these welfare schemes are inaugurated, attention should be given equally to the means of their financement so that resources are not diverted from development to so called welfare services.

National

Plan

Given the various factors internal and external (political changes, the gulf crisis etc), should there be a plan holiday ? A plan holiday means that development programmes at the National and state level would be decided on annual ad hoc basis rather than on the basis of a medium term definition of objectives and means of attaining them over that period. At this stage, there will be agreement with the Prime minister that there should be no plan holiday. Second and following from it the Planning Commission should be quickly reconstituted, the Deputy Chairman appointed so that the Plan discussions (both Annual and Eighth Plan) can be considered by mid December and the draft Plan document readied by mid January to guide the National and state budgets for 1991-92. Third, the Plan should be based on the Approach Paper which has been approved by the National Development Council, with its quantitative indications of the overall growth rate, the employment growth rate, the growth rate of savings and the plan size of Rs. 610,000 crores, including a public sector outlay of Rs. 3,25,000 crores. Fourth it is on the resources side that some careful thinking and some hard decisions are needed to realise the resources planned for. Should the proportion between the public sector outlay and that of the private sector which is set at 56 : 44 be changed to increase the private sector's share to nearer 50. The Commission's tentative proposals to reduce from 60 to 54 per cent the public sector share in investment in industry and infrastructure (mining, electricity transport etc), to reduce allocations to medium and large units from Rs. 35,200 crores as to Rs. 23,500 crores, to allocate Rs. 20,750 crores for the union and Rs. 1500 crores for the states public enterprises and after completing ongoing projects and using Rs. 10,500 crores for new projects under various stages of consideration (which add upto an additional Rs. 35,300 crores which are not available) — all this means not only a reduction in the share of the public sector outlay vis a vis that of the private sector but also allowing the private sector to invest in core industries like electricity, steel, chemicals and petro chemicals—calling for liberalisation of investment policies and simplification of procedures. There were serious shortages in production of mining, heavy industry and nuclear energy. In steel though the demand can be met atleast in part by the secondary producers expanding production by 3 million tonnes and the integrated plants by 3.5 to 4 per cent, the nil investment in steel in the eighth plan will cause a serious supply shortage in the IX Plan, and so rather reluctantly proposes that either the Orissa or Karnataka steel plant should be set up. Turning to the hard decisions to be made to safeguard the VIII Plan in view of BOP problem aggravated by the gulf crisis, the following have to be faced : a) impounding all additional DAs, b) reintroducing the compulsory deposit scheme, c) Linking PDS issue prices to procurement prices, d) restructuring PDS to ensure that only the poor are the beneficiaries e) passing onto farmers the increase, in cost of fertilisers due to the oil price hike, f) cutting down imports of products, components, and raw materials related to elitist consumption, g) raising prices of diesel, kerosene and LPG, h) replace use of petroleum products by natural gap (gas instead of naphtha for fertiliser production, j) deferring some projects calling for large outlays like one rank one pension, DA for public sector employees, the Right to Work as a constitutional, right, j) holding down defence spending and all subsidies, k) identify dynamic exports and thrust areas. The reduction of government consumption, food expenditure and subsidies should release Rs. 50,000 crores for the Plan which will enable the realisation of public savings placed at Rs. 90,000 crores by the union and states (Rs. 25,700 crores through extra tax and non tax revenue, additional resource generation of Rs. 14300 crores and the above Rs. 50,000 crores in government expenditure savings). In the power sector as noted earlier some 10,000 to 12,000 MW less is to be created because of the resources crunch and for crude Rs. 24,000 crores are being provided against the Rs. 46,500 crores needed. These are some of the hard decisions to be made. On some of the important sectors, the commission suggests that of the Rs. 32,000 crores earmarked for employment generation, Rs. 30,000 crores should be for rural employment and Rs. 2000 crores for urban. The main job creating avenues are agriculture, irrigation, small industries, construction' and the social services and the informal sector in urban areas. On rural development, it emphasises institutional reform, reduces the role of government and making it a peoples led process and a programme of decentralisation to mobilise all institutional resources at the village level. How these options, decisions and programmes will be finally embodied in the VIII Plan and how far they will be realised, it is too early at this stage even to speculate on

Prices

Inflation on the basis of the whole sale price index registered in October a 3 point rise at 183.7 on October 7. (Earlier the inadequacy of these indices measuring the real impact of inflation was referred to). For the 12 month period, on point to point basis, the inflation rate worked out to 9.6 point, reaching near the double digit figure referred to in previous issues. Also the major increases occurred in food articles — ragi, rice, wheat, maize, arhar, urad, tea as well as oil seeds and edible oils. RBI reports a sharp increase in currency notes in circulation by Rs. 160.05 crores to Rs. 50455.25 crores during the week ending November 16. Deposits of scheduled commercial banks fell by Rs. 3565.94 crores to Rs 26059 crores. In addition RBI warns commercial banks not to resort to window dressing of account books by inflating their deposits, so that the real level of deposits is not known. The inflationary spiral is yet to reflect the oil price

hike and the Gulf crisis. Its impact is on the landless agricultural labourer and marginal farmer who have no compensatory mechanism to offset the increased cost of food for him and his family. Should there be a periodic (6 month) revision of the minimum wages to take account of this factor ?

Stock Exchange and Union loans

The RBI Governor in November proposed that the government should borrow from the stock market and not use overdrafts with the Reserve Bank to finance its deficits. This makes sense if the government's deficit is a low one and agrees with RBI as the Sukhumoy Chakravarty report IX Finance Commission recommended. (See Vol XVII p 199, Vol XVIII p579 and Vol XX p 241). This also involves as a pre requisite an active bond government market which will be a move towards market clearing interest rates on government securities. But this proposal which involves the public subscribing to treasury bills issued by government will function only if their interest rates are made attractive so that the public is attracted to it. But would this not send the governments' interest rates soaring high and so add to the already heavy non plan deficit of the government ? There is then this discussion of freeing RBI to really control money creation on the one side and the problem of increasing budget deficit — particularly the non plan element. One answer which might seem theoretical at present is budgetary and fiscal discipline but there is no escape from it to keep the economy viable. In November the decision of the Securities and Exchange Board of India (SEBI) to make company board of directors accountable for the accuracy of their unaudited half yearly accounts supersedes the decision of stock exchange authorities to ask companies to explain discrepancies in their half yearly results and penalise those which gave an unsatisfactory answer. The latter was still borne because the stock exchange do not have either clout or tradition to enforce this discipline which also makes insider trading through which the accounts are cooked impossible. So the raid on the offices of 4 brokers by 4 IT Department and the disruption it caused to the market in mid November is a confirmation of this. It has also led to relaxing trading restriction in specified share and jobbing restriction. It remains to be seen how these relaxation will work. Would this also arrest the unhealthy trend of the booming in the secondary market, while there was a 61 per cent fall in shares issued and subscribed in the primary (capital) market in the first 6 months of the year ? This is important to watch. The Union issued in mid November the 3rd tranche of its 4 loans for Rs. 1500 crores gross and Rs. 1367.63 crores net — which totals Rs. 5651.52 crores net borrowing for the year. This is a fourth tranche of Rs. 2216.39 crores to come before March 1991 to reach the budget borrowing total. Will the government keep within this budgeted total, given the pressures for resources that it faces ?

Economy

The review of the economy at this mid year point by the Economic Times indicates a positive trend in the agricultural sector where there are prospects of a bumper crop following the good south west monsoon. But this also brings out the point of the heavy dependence of the economy on natural factors. The other signs are disturbing. In the non food areas, why has credit sunk so low when the industrial growth is expected to be the normal 8 per cent. Is it due to disintermediation, that is the corporate sector relying on the capital market, on mutual funds and on finance companies rather than on the normal reliance on banks for working capital. Does this mean that the power of RBI and the government to central and direct industrial development is being restricted. Another worrying factor is the growing trade gap due to a marked deceleration in exports and the alarming balance of pavments deficit resulting in falling international credit standing of the country (experienced by ONGC and IDBI in raising international loans and these are our prime borrowers), falling of the foreign exchange reserves to Rs. 3000 crores sufficient for 3 weeks imports, and forcing the country to resort to the harsh IMF — EFF loan of $5 to $6 billion as the $500 million CFF loan is totally is inadequate. Further, the debt service ratios has passed the danger mark at 30 per cent of export earnings. The price situation is equally disturbing with a double digit inflation threatening the economy. The infrastructure services — power, steel, cement, coal and petrol are all in short supply — all calling for the kind of hard decisions to pull the economy out of its morass referred to earlier. Some particular developments have not improved matters such as the 25 per cent cut on supply of petroleum products with 10 per cent cut on HSD supply which has hindered trade and delivery of goods to the market. The HSD cut has been withdrawn after damaging the economy. In order to meet the trade and BOP deficits, sugar and food grains exports are being undertaken with deleterious effect on domestic supply, heavy subsidy for sugar exports at half the domestic price and serious damage to the major export manufacturers of oxalic acid as their input of sugar has declined. Another minus point is that despite the many anti poverty programme undertaken over the past 10 years, the dependence of the poor on money lenders in view of the absence of banks which are located at 10-20 kms from the village and the non recognition of activist voluntary agencies who are working with poor helping them to save what they can and become self sufficient. This however does not prevent them resorting to the money lender who is readily available to meet their day to day needs, charging on exhobitent 10 per cent interest per month. In this situation, a small palliative would be the planning commission recommendation that subsidised goods should only be for the poor. By the time this is operationalised, the poor will have contracted more debts from the money lender.

Industry

CSO's quick estimate of industrial growth for August is reported at 10.5 per cent and for the first five months, April-Au ;ust at 12.4 per cent which sets a good industrial scenario for the first half of the year Against this overall trend, the performance of the core sector is reported to have fallen steeply in September, with power production 9.1 per cent short of the target, coal production 11 per cent, steel 9 4 per cent, cement 6 per cent, crude 17.4 per cent and fertilisers by 3 per cent of their respective targets. What is worrisome is the fall in coal and crude production against the energy crisis facing the economy. The shortfall in power in September is explained by the shortage of coal but that does

not explain the April-September decline of 2.5 per cent. Even coal loading fell by 12 per cent in September with severe effects felt by the users particularly in the south as noted in the last issue. At this point, the analysis of the World Bank which traces the above industrial slow down to its usual formula — of the regulatory, incentive policies and price controls, leading to a sharp decline in price competitiveness in steel and fertilisers particularly and also including manufacturers to adopt certain forms of anti competitive behaviour as pre-emptying applications by competitors for capacity or technology increases. The logic of this analysis in the dismemberment of the public sector and throwing all the sub sectors to private enterprises and competition and scrapping small scale reservations or public sector reservation. The key point of this analysis is that the problem is traced to banning competitive imports where adequate domestic supplies are available without regard to the price level of their availability. This analysis might apply to some sectors like cement and sugar in part where the dual system of production is already in force but seems to have no relevance to the core sector problem of falling growth rate in September which can be traced to decline in labour and capital productivity for which competition is not the answer. A disturbing industrial factor is the spread of sickness in the small scale sector with 1,47,740 units being involved, locking up Rs. 4874 crores at 1986 end. The many reasons for their sickness include shortage of raw materials and credit, lack of managerial talent, production at sub optional levels, inability to stand world competition due to low production — volume and high cost vis a vis their counterparts in Japan, Taiwan, South Korea, limited access of technology, delayed payments of their bills by large units, and above all the looting of the units by the managers. The remedies range from penal action on defaulting managements to technology upgrading, mergers, setting up of export houses for small units, product diversification and sale or closing down of unviable units identified by BIFR. These are all well known, but there is no political will to enforce them. One other issue is the hiking of interest rate from 11.5 per cent to 14.5 per cent in the textile modernisation scheme leading to the question as to whether the Rs. 750 crores schemes should be withdrawn. This would be ill advised at this time after the 60 per cent modernisation of the spinning sector where 63 per cent of spindles and 82 per cent of looms were identified as outdated by the 1985 textiles policy committee and when both the domestic and export demand for textiles and garments are booming which will be further pushed forward as the price of crude oil rises (due to the gulf crisis) and fashion demands in clothing are for the natural fibres in which India has a comparative advantage over the synthetic which was till recently in fashion.

Public Sector Enterprises

Leaving aside the routine and meaningless report by the Department of Heavy Industry that the 30 units under it recorded a productive increase of 9 per cent in August — routine because this is repeated every month without taking account of the losses suffered by the units and meaningless because it is measured by the value and not volume of production. A more candid report is that several engineering projects in the public sector like Hindustan Cable, the gas turbine project of Maruti Udyog, the hydraulic seals project of Andrew Yule and a number of projects of CCI — covering over Rs. 500 crores are in jeopardy because the Planning Commission has told them and the Department of Heavy Industries that no funds will be allocated to these projects. The resource crunch is resulting in denying funds to these new projects, which makes sense because funds for maintenance and completion of existing projects are short and need to be given priority in non plan allocation. This kind of resource tightness may be good for the sector in pulling up its production and productivity. There is a question as to whether Government action in tampering the PM's programme of the electronic components industry and allowing imports of raw materials for components which has rather seriously affected the industry was necessary and timely? A good development is the offer of the private sector to buy up sick public sector units put up for sale on the recommendation of the committees of secretaries. Such units include CCI (Cycle Corporation of India) for which a buyer from Calcutta has made an offer. The government needs to examine this offer and make a decision expeditiously to set the stage for disposing off sick public sector units.

National Production Front

Steel

The earlier reference to the steel industry being on a down slide, and falling seriously short of its targets is backed up by details of the serious raw materials shortage — boiler coal, coking coal and iron ore fines that the Vishakpatnam plant faces to a point where even a shut down is being envisaged, the shortfalls on production of hot metal, ingot steel and saleable steel at Bokaro and production of finished steel being atleast half a million tonnes short of the target of 14.3 million tonnes for 1990-91, despite SAIL's press release that its 5 integrated steel plants produced 6 per cent more in April-October 1990 compared to production in the corresponding period of the previous year. (To dress up the data, sometimes the actual production figures are compared with targets, sometimes with that of the previous year). But the most serious development is the complete change in the perspective plan (upto 2005) of steel under which with an investment of Rs. 15000 crores from internal resources and borrowing (with no budget support), crude steel was to be increased from 11.2 million tonnes to 17 million tonnes and saleable steel from the 9.1 million tonnes to 15.2 million tonnes, involving also increased productivity and lower costs. Now in the name of realism and what is called updating of this perspective plan, we are back to square one — with crude steel production in 1994-95 being at the same level as 1989-90 and no talk of modernisation. The only bright spot in this dark and stagnant picture, is the mini steel plant's role which could cover in part the gap between steel production and demand which is around 7 million tonnes and with stagnant production of the integrated plants could double by the end of the IX plan. Hence the provision of reliable power supply and the supply of scrap and sponge iron to the mini steel units is vital to save atleast part of the steel scene. Further another positive development is that the new steel policy allowing private sector companies to set up integrated steel plants upto 1 million tonnes capacity is fetching a good response. Three application one each from Simple India, Usha Ispat and Industrial Promotion and Investment Corporation of Orissa — have been received by the government for a total capacity of 3 million tonnes. The Orissa unit is joining with the Delhi based private unit, Tindale to set up a joint sector with 3 million tonnes capacity. This will have to be proposed separately.

Crude

The crisis faced in the area of crude oil arises from stagnant (and even falling) domestic production at a time when it should be increasing, and the mounting oil bill because of the increasing imports. Now there are plans set forth by ONGC to raise annual production from Bombay offshore area from the current 22 million tonnes to 30 million tonnes during the VIII Plan, calling for an additional investment of Rs. 10,000 crores. ONGC also reports about its plan to explore for oil and gas in category four basins — that is high risk and high reward basin as at Jabera near Pune where drilling has began and other sites in Central India. Neither of these schemes can bring relief in 1990-91 and even 1991-92, and so it is important that the criminally wasteful strikes as at Assam Refinery should be quickly settled, extraction from the existing production sources should be maximised and oil use should be economised and conserved.

Coal

The coal position — where the decline in production was earlier noted — is gloomy. Coal supply which is vital as the only alternative to the increasingly scare and increasingly costly petroleum products, is being reduced by a combination of natural calamities (floods in the coal mines of Bihar and West Bengal and continuous rains) and by man obstacles — the labour unrest in the Bihar coal mines and the even more serious strike in Singareni. There was also the problem of availability of railway wagons to transport coal. On top of all this there is talk of hiking the price of coal. In this situation, there is no use in Coal India claiming, as it does, that its output and despatch of coal in the first 6 months of 1990-91 was better than last year and that its coal supplies to power and cement plant improved by 4-5 per cent. The proof of the pudding is in the eating. This is a case where figures work faster. For the fact is that a number of industries and thermal stations, particularly in the south and western regions have been crying aloud about the poor coal arrivals. The situation is so bad that as noted earlier the Government is concluding an agreement with Australia to import coal — at a time when there is no foreign exchange available. Coal production and despatch needs urgent attention almost on a war footing.

Edible oil and sugar

Will higher prices ensure that the 1990-91 oil seeds target raised from 172.4 lakh tonnes to 180 lakh tonnes be attained? For 1989-90 the production is officially estimated at 167.7 lakh tonnes — 10.5 lakh tonnes short of the target. For 1990-91 kharif oil seeds is estimated at 92 lakh tonnes and rabi at 81 lakh tonnes. For 1990-91 this will involve a gap of 13 lakh tonnes between edible oils supply and demand. Against this background of limited production, soaring domestic oil seeds production and the edible oil import of a substantial amount, the

Government should not have permitted the export of edible oil seeds which is estimated at 50,000 tonnes for this year. Despite the higher procurement prices, production in 1990-91 will not be too much beyond that of the previous year, which means that higher prices alone will not produce a higher output — other elements water supply, quality seeds, fertilisers are equally if not more decisive. The table below set forth data on oil seeds, oil production and availabilities:

Estimated oil seeds production, availability : 1990-91

		Kharif	Rabi	Total	Oil Availability
	Groundnut	53	22	75	16.5
	Rape Mustard	...	45	45	13.5
	Soyabean	20	...	20	2.9
	Sesamum	6	2	8	2.5
	Sunflower seed	5	3	8	2.5
	Safflower seed	...	5	5	1.0
	Higher Seed	2	...	2	0.5
	Castor Seed	6	...	6	2.4
	Lin seed	...	4	4	1.2
	Total	92	81	173	43.0
Add :	Solvent extracted oils				2.5
	Cotton seed oil				4.0
	Ricebeen oil				3.5
	Coconut oil				2.0
	Minor oils				1.5
	Total availability of vegetable oils				56.5

Source : Economic Times, November 24, 1990.

On sugar, earlier reference was made to the decision to export 5 lakh tonnes so far as a foreign exchange earner — even though because of low international prices, the exports will have to be subsidised by government. The exports have been greeted by a fall in prices Exports are also an indirect check on excess release of sugar in the open market and could control domestic consumption a little — a point urged by the Bulletin repeatedly. But exports

also means that sugar production has to be increased and if exports are to be a long term commitment, the increase will have to be a continuing one and not fluctuate from year to year as at present. Can the part control system now in operation achieve this ?

Agricultural Production

The agricultural policy document is still under discussion. One of the major issues is whether the policy should provide for specific audit regimes for various facets of the agricultural economy such as capital formation, upgradation of technology, diversification based on the agro climatic zones and sub zones ? The policy will set forth the means of making the volume of credit responsive to farming and rural development. This has implications for rural banking which RBI must take into account. Another issue still hanging fire is the component element of the agricultural price policy, particularly the wage element. The 1991 kharif and 1992 rabi procurement price for wheat which was announced in November is based on the formula of the actual wage paid so that the basis on which it was raised from Rs. 215 per quintal to Rs. 225 per quintal is not known. So too the higher purchase prices for gram (+Rs. 29 per quintal), rape seed/mustard 9=Rs.25 per quintal) are based on elements including the risk element which need to be announced. The policy ofcourse bases itself on the decentralisation of the planning process and the launching of massive rural works programme for massive land and water management. This raises the question of water where the switch from major and medium irrigation works to minor irrigation should be reflected in the policy, as big water projects do not ensure efficiency in water management, resulting in optimum return and yield. In fact a micro water shed project in Karnataka has demonstrated that per acre productivity of ragi can be raised by 40 per cent by the farmers.

Foreign Trade and Balance of Payments

The foreign trade picture is both serious and distressing. It is serious because the trade deficit for the period April September is placed at Rs. 4264 crores and the ministry warns that present export and import trends could lead to a large trade deficit of Rs. 10,000 crores. It is distressing because the country's foreign exchange reserves have fallen to Rs. 3045 crores which can finance just 3 weeks imports. This has a double result. It has diverted all attention on day to day crisis management, replacing more medium term strategy and policy considerations. Second, it has also forced the government and country to face external borrowing and at this point of time the less onerous terms of borrowing will be the IMF and given the dimension of the country's foreign exchange needs $5 to 6 billion, it will have to be from the extended financing of IMF with its very harsh conditionalities. These conditionalities fall into 3 groups. One is all the measures needed, to reduce the fiscal imbalances of the economy, and restore a measure of fiscal balance. This is the country's priority any way calling for sharp reduction in government expenditures particularly on non plan account involving the kind of hard decision set forth in an earlier section. These conditionalities need not be imposed on us, it should be our own decision. Second is the opening of the economy for cent operation of market forces: thi is a direction in which we have been moving and we can negotiate with the Fund what more and at what pace it has to be done. The third is the most difficult and that is to open the economy to foreign investment and foreign firms. On this there will have to be long, hard and prolonged bargaining because this is against the basic foundation of our economy. Meanwhile the need to push exports despite the gulf shut off, the recession in industrial countries and the contraction in the demand for major export goods like gems and jewellery have to be considered. All this means that the original export target of Rs. 37,000 crores and the revised Rs. 30,000 crores will not be attained. On the import side is a series of decisions. The OGL list is being pruned, the minimum margin on loans for raw material imports are being revised to 50 per cent, RBI has asked commercial banks intially to raise interest on capital goods purchase advances to 18 per cent and later completely to stop financing imports of capital goods. Some of these restrictive import measures have a negative effect on exports. On individual items, the list shows a downward movement. Handicrafts have increased for the 6 month April to September by 15.4 per cent, dyestuff export show a marginal 3 per cent increase in that period, leather exports have risen by 17.3 per cent in rupees and 10.5 per cent in dollars, and one important export item reported is that digitally controlled cold rolling mills have begun to be exported to US.

Aid and loans

A question has been raised whether, in this difficult foreign exchange situation, the VIII Plan Approach to reduce external concessional loans called for aid from 2.5 to 3 per cent of GDP to 1.5 per cent is a right decision. For one thing this reduces the future pressure on amortization in a situation where our external debt is variously computed — Rs. 100,000 crores by our ex-finance minister and $69.7 billion by OECD. In this situation the bilateral loans not only add to our amortization burden but as they require that they be spent for equipment in the lending country, there is a distortion of our priorities and a higher cost involved. The UK grant is really aid and for the year Rs. 360 crores is being granted as programme aid and not tied to any project. The loans from the World Bank ($4 million to ICICI for leather research, Rs. 65 crores for 3 irrigation projects in Madhya Pradesh, $95 million for soft ware industry training, $250 million for textile mills modernisation, Rs. 40 crores for agricultural research) and from the Asian Development Bank ($250 million for the second road project, $60 million for the Power Finance Corporation) though not grants do have a lower rate of interest from LIBOR or commercial loans and have a longer maturity period and so have an element of aid in it. But they are project loans tied as noted above to particular projects. The Power Finance Corporation will also receive a loan of 7500 million Japanese Yen from a consortium of commercial banks and insurance companies in Japan and Hongkong. This is a straight commercial loan.

International

World Economy

There is general agreement among international analysts that the world economy is in for a recession. To

start with IMF, in its latest economic forecast refers to the impact of the rise in crude oil prices and looming economic recession in the United States economy, with a set back to growth in most industrial countries (growing at 2.6 per cent in 1990 and 2.4 per cent in 1991 compared to 3.4 per cent in 1989) and all developing countries. While the US growth will be 1.5 per cent in each year, Germany, Japan will record over 4 per cent growth. The impact of the rising crude oil prices will be lower in industrial countries which have become fuel efficient users. But all developing countries except Asia will experience stagnant or declining growth. Asia led by East Asia will experience 5.6 per cent growth, with Thailand growing at 10 per cent in 1990 and 8 per cent in 1991, South Korea 6-7 per cent, as will Malaysia, Indonesia and Singapore — with inflation at 10 per cent. East Europe will see a contraction of 5.2 per cent. UNIDO joins IMF in forecasting a world slump this year from 3.2 per cent in 1989 to 3.1 per cent in 1990. Developing countries will grow at 3.9 per cent in 1990 and 4.1 per cent 1991. It sees declining conditions in East Europe. It agrees with IMF that Asia will experience growth while Africa and Latin America will experience a continuous economic crisis. A British review of the world economy while agreeing with this sombre picture is of the view that global economic warfare and massive liquidations and absorptions flowing from oil are indicative of growing instability of the world economy which will worsen in the next two years. There is general agreement that the East Asian countries from Thailand to Japan will, however, be comparatively better off. It is against this world economy that national economies like India must function.

IMF

IMF has set up a new emergency relief facility to assist countries hit by higher oil prices and the gulf crisis until the end of the year. This aid will be available relatively quickly. The IMF executive board has expanded and changed the phasing of existing borrowing facilities rather than create a new Fund. Even so, this aid will be available to oil importing countries in the context of "comprehensive adjustment programme". Temporarily till 1991 end, an oil import element is being introduced into the Compensating and Contingency Financing Facility (CCFF). Aid under this facility will be small and limited and to make this dependent on "comprehensive adjustment programme" is for countries like India adding insult to injury.

World Trade and Uruguay round

GATT reports that world trade increased in value terms by 7.5 per cent in 1989 against 14 per cent in 1988. The growth is keeping up in 1990 despite the uncertainities caused by the Gulf crisis it says. IMF estimates that in volume, world trade will increase by 5.5 per cent in 1990 and 1991 against 7.5 per cent in 1988 and 1989, with Asian countries being more seriously affected because of their heavy dependence on the US market, which absorbs one third of exports of Japan, South Korea, Taiwan and Philippines. The protectionist forces in the US and other industrial countries might be strengthened if the Uruguay round ends in a failure seriously affecting multilateral world trade. While advising against the building up of trade blocks, for the developing countries it recommends that quotas should be replaced by tariffs which will lead to full capacity use under both perfectly and imperfectly competitive conditions and eliminate strategic advantages to oligopolistic firms that arise in quota based trade regimes. However it also suggests that interest rates liberalisation should be gradual if the macro economic environment is unstable as it is in most developing countries and if it adversely affects private sector profitability. This is the heart of the IMF analysis on this issue. On the Uruguay round, which will come to a head in the ministers meeting on December 3-7 in Geneva the prospects are a) a deadlock between the major industrial countries. US on the one hand and EC on the other on the question of farm subsidies, b) issues which concern the developing countries like MFA will be passed by or may be sacrificed by the 2 groups if any compromise is attempted, c) in case of a complete deadlock trade wars will erupt, with US leading, as by its legislation Super 301 it is mandated to take unilateral and bilateral actions against trade partners with whom it is in conflict. The world trade prospects are bleak. In this context, the question should be faced by the developing countries as to whether they should not unite in fighting the unjust trading and economic system being imposed on them by the industrial countries. The group of 15 developing countries which met at Geneva under the chairmanship of the Venezuela foreign minister should now stop pleading and begging but stand up and fight for the rights. They are going to lose anyway — so why not place on the table the real issues.

World Population

The Population Reference Bureau, Washington in a study on world population states that "dramatic changes" have been caused by the family planning movement in India and other developing countries which have succeeded in keeping their birth rates under control. As of 1989, 82 per cent of the third world population lived in such countries resulting in the lowering of fertility rates. India was the first country to adopt family planning followed by Pakistan, Korea, China, Egypt etc. It states that in the 1960s on the average third world women bore more than 6 children but in 1990 this has declined to 3.9. Sterilisation is the most widely used birth control method in these countries. This kind of overall global data hides the basic difference between the real achievement of a country like China and the struggle which is still on for population control in India.

SAARC

The meeting of heads of states and government of the South Asian Association of Regional Cooperation (SAARC) met at the end of November at Mahe and after 3 days discussion adopted to a declaraion a) reaffirming their faith in SAARC, b) called on its members to translate into national legislation the SAARC convention on terrorism, c) agreed to explore the setting up of a fund for financing regional projects, d) agreed to establish a human resources development Centre in Islamabad, a regional tuberculosis centre at Kathmandu and a regional documentation centre in New Delhi, and e) extended visa exemption facilities to heads of national academic institutes. A convention to combat drug trafficking was signed. India pleaded to expedite efforts to prepare a regional plan on cooperation in trade, industry and manufacture by February 1991, when the next SAARC Summit is to meet in Colombo. SAARC is still in the formative stage and everyone is bending over backward not to shake the recently fashioned infant boat too hard.

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II. Agricultural Development in Tamil Nadu

Paddy and other crops

Farmers have taken full advantage of the plentiful North East monsoon for growing paddy over 20 lakh hectares, millets over 9.3 lakh hectares, pulses over 3.45 lakh hectares, cotton over 1.08 lakh hectares and sugarcane over 1.74 lakh hectares (in which the state has attained a record productivity of 140 tonnes per hectare). Total paddy production looks as if it will be 60 lakh tonnes this year. There are districts where farmers have not received adequate rains. They include North Arcot, (where farmers are relying on the flows in the Palar river and on lift irrigation using their pumpsets), Salem, Dharmapuri and Periyar districts, so that the paddy hectarage by November beginning which is the normal end of the samba season was only about 40-50 per cent of the normal. In districts like North Arcot and Chengai Anna where the farmers rely mainly on lift irrigation, farming has become a continuous process with standing paddy crops termed as late sornavari, early samba, late samba, early navarai or thaladi so that the farmers are seen to be continuously ploughing, sowing, transplanting or harvesting. One problem facing these dry farmers in these districts is that the irrigation tanks whose ayacut includes their farms are full only in 10 per cent of the states 6947 tanks for the others the water in the tanks as of mid November will serve them for 1 month to 3 months. Hence the farmers expect more rains. Farmers in Dindigul—Quaide E Milleth are faced with a serious problem as the over 100 tanks in that district and in their area have only one month's water and so further rains are eagerly awaited. What will also help the farmers in these ayacuts is the removal of encroachments which are choking the supply channels into these tanks. Here the tanks renovation programme (aided by EEC), it is hoped, will reach their tanks. They are also willing to use Jowhar Rozgar Yojana facilities for restoring the supplying channels. Could this work which is so important to the farming community be resumed at any early date.

Research results

Of the 26 research reports recorded in November, five need to be noted in view of the prospects of immediate transfer of the results to the farm. One emanating from the regional research station, Aruppukottai shows that sowing undertaken in broad beds and furrows collects rain water and is used by the crop, which moisture conservation increases crop yield by 12-23 per cent

— a water harvesting development which can be used by dry farmers all over the state. A group of 2 reports from Hyderabad and Dharwad makes available to paddy farmers a high yielding rice variety resistant to bacteria leaf blight IET-8585 and 11 steps to be taken to combat brown leaf spot of rice. A group of reports on groundnut from Vridachalam and ICRISAT, Hyderabad, shows groundnut farmers the 6 steps that have to be taken to control pod rot in it and a high yield groundnut for rabi and cultivation called ICGS-37 made available to them. Two reports from Dharwad and Madurai which would help sugarcane growers are relay cropping of sugarcane in tobacco farms and alleviating early drought in sugar cane through trench planting. A group of 3 reports from Periakulam, Mallapura and Coimbatore deal with the means of combating fruit flies and white flies can be used immediately by melon growing farmers to control melon flies along with the necessary field sanitation; by water melon growers who face the menace of the white fly can control them by setting up yellow sticky traps in the field where bers are grown and those growing ber who face the problem of the fruit fly through periodic pruning and burying of affected branches and use of prescribed dosses of malathron. Finally the results of the reports from IRRI and Annamalai Nagar on the use of azolla and green leaf manure advises that azolla can be used as a good bio-fertiliser and as a protein rich feed for fish, ducks and other poultry and pigs, while the use of green leaf manure, including solid weeds help augment rice production and the residual organic matter content in the soil.

Hill Conservation and Operation Flood

To counter the alarming decline of the eco system and damage to the once beautiful and economically important hill areas, on the recommendation of the Directorate of Town and Country Planning, the Hill Areas Conservation Authority has been established to preserve the eco system of Tamil Nadu western Ghats. In time it should also deal with the damage done to the eastern ghats. This action has been overdue to stop further damage through the various activities in the hill areas such as vegetable cultivation, live stock breeding, dairy development, repatriates rehabilitation, and tourism. The Authority has been set up a little too late and so it has to begin work at once and move fast in both its regulatory and monitoring role of the activities there — particularly agricultural, industrial, mining and water management, as well the banning of some like crude oil refineries, thermal power stations and some chemical plants and development of bio-system and bio-reserves. Operation Flood III has started in other states and is unfortunately delayed in Tamil Nadu owing to some procedural and institutional problems. Now the Rs. 68 crore programme of new dairies and chilling plants will have to be completed before the next year in order to double the present handling capacity of 12.5 litres of milk factories in 13 districts and metro dairies plus the 30 tonne milk powder plant at Erode. This occasion should be used to deal with the bottlenecks faced by dairy farmers in some districts who are not able to sell their milk because the infrastructural facilities are inadequate. There should be no more foot dragging on this important project. There is currently an added problem of the government having raised the procurement price of

milk (which benefits milch animal owners) leaving the question of the means of financing it often.

Plantation crops

The plantation crops, five of which are dealt with in this sector raise a number of issues which demand early attention. One common problem that all of them face is the place of the *domestic market* in the disposal of output. In the case of tea, the domestic market consumes 70 per cent of production and is constantly increasing : in coffee only 30 per cent of the annual production of 120 to 215 thousand tonnes is consumed in the domestic market and demand is that this be increased, as the export quota for the country by ICO is only 60,000 tonnes : in rubber domestic demand is continuously increasing production, results in annual imports of 44000 to 59000 tonnes in the last 5 years. In the case of cardamon, the domestic market is being pushed to compensate for the loss of export markets to Gautemala. Both cardamom and pepper are increasing both in domestic consumption and exports. Thus in the plantation industry the emphasis is on the home market. In the case of *tea*, the rate of production growth is not satisfactory : in 1990 600 million kgs so that the 1995 target of 900 million kgs is far away which shows the vital role of R & D in tea development and so the export of 220 million kg is also far from the 1995 target of 300 million kg. On exports the industry is not doing well as 65 per cent of tea is sold to one country USSR, the offer of Sri Lanka and Bangladesh to join India in marketing tea is yet to be taken up, the loss of the Kuwait and Iran market has not been compensated by the industry developing new markets. While in the case of tea, the government and industry are doing everything possible to meet the insatiable home market demand, in the case of *coffee* no progress has been made to expand domestic coffee consumption and the collapse of ICO quotas gives urgency to this problem. The problem for the future is likely to increase as with the high yielding planting material and increasing production area, supply will be increasing. One important issue in the coffee scene, is the question as to whether the coffee board's monopoly marketing should be scrapped and replaced by what the study of IIM Calcutta calls "optional pooling" of coffee, giving the grower a choice between marketing through the Board or other channels. With the collapse of ICO quota, there is a case for this option, which will offer the grower say in the marketing of his products. This gains urgency as the coffee pest, coffee stem borer, is attacking the plants, adding to the worries and costs of the planter. As regards *rubber* despite production rising by 4 to 5 per cent annually, the sharp increase in demand makes the supply short fall serious and explain continuous imports. The objective of self sufficiency will not be attained if only natural rubber is looked at in isolation. The plans for increasing rubber cultivation in non traditional areas like Tripura and the North East states comes up against environmental and ecological imperatives. The planting of rubber treas on denuded forest lands in Tripura for instance is challenged, as it is felt that lands should return to its natural forest cover. Rubber producers also face this year a problem with the sharp decline in rubber prices caused by the strike of the telecommunication staff (a problem faced by all producers), and the shortage of diesel which has reduced the transport of rubber to the user points. This pressure needs to be relieved soon. In the *spices and pepper* area, there were opposing developments. Indian spices exports have been stagnant over the past 3 years at 99,800 tonnes a year worth Rs. 273 crores. The major spices yielding about 1.5 million to 2 million tonnes are cardamom in which as noted earlier the exports are declining and home consumption increasing, pepper in which the rise in domestic price is having a limiting effect on exports and this is likely to be worsened as its production this year will be lower by 40 per cent, the other spices being chillies, ginger, turmeric etc. One issue is whether the global pact on spices exports, called the resource mobilisation export committee set up by the world spices congress meeting in early November in Bangladesh can help in bringing some order in the amorphous area and settle in part some of its severe problems?

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III. Industrial Development in Tamil Nadu

Industrialisation Trends

In November also, as in past months, there were positive as well as negative factors characterising the drive towards industrialisation in the state.

Starting with are the many positive factors which add upto a strong move towards industrialisation. The Union government clearances to set up *3 growth centres* in the districts of Thanjavur, Periyar and Tirunelveli, along side of the launching of the associate sector referred to in the last issue and the *registering of 240 companies* in just 2 months, September and October (30 public limited with a capital base of Rs. 342 lakh and 211 private limited with Rs. 2484.25 lakhs) are a positive first element.

Another issue relates to the *Salem steel* plant where the doubling of its capacity from 32000 tonnes to 65,000 tonnes has once more been affirmed by the SAIL chairman through the installing of a second Sendizmir mill (See Vol XXX p475). But the issue new under discussion is installation of hot rolling mill facilities (instead of importing them from outside or from Durgapur as at present) which raises several issues : a) it involves a competition with the alloy steel plant at Durgapur in West Bengal : b) the cost of such facilities established at last year's rate of exchange was Rs. 500 crores which was approved by the SAIL Board of Directors (see Vol XX 537 p109) but is yet to go through other procedures including the cabinet approval for project sanction : c) the establishment of this facility will create excess capacity of 150,000 tonnes which even the second sendizmir's product will not absorb, and at a time of a serious resource crunch and foreign exchange scarcity, this seems a luxury. If the Salem plant is not to become an integrated public sector steel plant in accordance with the new policy referred to earlier should the plant be sold to the private sector — these are issues under debate. Even if sold to the private sector, as far as Tamil Nadu industrialisation is concerned,

both the direct and indirect benefits of the Salem plant will be conserved as the private sector plant will continue at Salem and above all there will not be this interminable delay in starting it.

A positive trend for the industrial future of the state is the setting up of the *office of small software exporters* in the United States which will use ELCOT and computer software units in other states in marketing Indian software products as well as expertise. Similarly TIDCO's tie up for Rs. 350 crores with the UK firm *Tiosaids* will use the abundant ilmanite resources to manufacture titanium dioxide. Also TIDCO's decision to disinvest its 26 per cent state in *Pantasia Chemicals*, which the private firm Asian Paints is taking over is in line with the policy advocated by the government and TIDCO not itself engaging to industrial operation.

Another plus point is the scheme by *Madras Fertilisers* for Rs. 313 crores submitted to the Union Government to extend its life by 15 years. During this period it will also increase its capacity by 40 per cent, reduce its energy consumption by 41 per cent which means that it will be like a new plant at a lower cost. This is one of the profit making companies and on this basis it has been able to declare a dividend of 15 per cent for 1989-90, despite the government's suspension of P 205 imports and consequent lower NPK fertilisers production.

One of the positive developments is the decision of the well managed private sector *Lakshmi mills*, leading in textiles and fabric manufacturers to enter the readymade garment field in a big way. The focus will be on development of new fabrics for both the domestic and export markets which will involve increased employment and labour and meeting the needs of the middle class customer and not only the elite as Madura Coats, Raymonds, Bombay Dyeing are doing. Other such plus points on industrialisation are the State government's plan to set up a *cell for exports* which will work with small scale units for marketing their products abroad. Similarly the scheme of the newly established Small Industries Development Bank (SIDB) to help the growth of industrial areas. State Industries Development, State Infrastructure Development and other such corporations are to be aided in developing industrial areas exclusively for the SSI sector. Each Industrial unit aided will receive from the bank Rs. 3 crores, keeping the debt equity ratio at 3:1. In this connection, an encouraging development is the conversion of *21 sick SIDCO units* at the industrial estate at Ranipet into finished leather small industries and the further 27 sick units which are in the process of being converted. It is good that the units have joined and started the Ranipet SIDCO Leather Settlement Treatment Company to combat and control pollution of land and water in the area. Similarly the takeover of *Cholamandalam Software* which is a sick unit by Cholamandalam Factory is a positive event as it will turn the sick unit around.

Finally in November *ONGC* reports extending its search for oil and gas in 3 sites with Ramanathapuram sub basin. Seismic surveys have been completed and now drilling must commence.

On the negative side on industrialisation in the state, CEI raises the question whether the *apathy of Tamil Nadu investors* with regard to the capital market, resulting in the slow spread of equity awareness is the cause for the low tempo of industrial development in the state compared to other states like Maharashtra, Gujarat and Karnataka. CEI cites several examples to support the disturbing hypothesis — Rs. 100 crores only being subscr bed to a Rs. 6000 crore venture, a 5 per cent contribution to the Madras based Gremach compared to contribution of 22 per cent to it from Bombay, 22 per cent from Ahmedabad, 10 per cent from Delhi etc. If this hypothesis holds, no industrial subsidies or incentives can push industrialisation in the state. What is needed is a less conservative financial policy and approach by the investing public to exploit the present upsurge in investor awareness to mobilise new resources.

Second, the Madras Bureau of the Financial Express reports that on the basis of data from the Export Import Bank the *Corporate sector* in Tamil Nadu and the South is indifferent to the opportunities in project exports being promoted by World Bank, Asian Development Bank. Out of 50 billion a year average project exports, the South contributes Rs. 12 crores as against Rs. 100 crores for companies outside this area. This data from the Export-Import Bank, of the states in the South not participating in the export effort of the country is traced to our not sending or joining marketing missions which are regularly on the move to contact potential buyers, get to know their requirements and improve export prospects of the company. This is something the Chambers of Commerce and Industry in the state should correct.

Third, there are other negative factors such as the declining order book position of BHEL which is leading to a decline in its order to its auxiliary units and fall in employment, the 700 water logged units in Ambattur estate (which may be temporary) but where the recovery time for getting back to its employment and production level may be anything upto a year the needs of the leather industry, which is doing well, but for the future should study world demand conditions and improve quality, timely deliveries and design initiatives, in which the leather units are lagging, the negative effect on the water scarce state which Tamil Nadu is and the certainly of diversion from food crops which the government policy of expansion of sugar mills will involve (thanks should be expressed atleast for the accompanying policy of the 'no licenses for new sugar factories') and the sales tax policy of the state which shuts out large capital goods companies.

The negative factors are important and are holding back the industrialisation of the state because unlike the positive forces which are long term phenomenon, the negative factors impinges on the scene here and now.

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IV. Education, Science and Health

Educational reforms

The Acharya Ramamurthy Committee has been confirmed by the new government and the new Ministry for Human Resources Development has been told firmly that it must submit its report by December 1990 and that it will have no extension after. This sets an important precedent not only for education commissions but for all such enquiry committees which have built a tradition of asking for extension to the point where the purpose of the study or enquiry is often forgotten.

Technical education

The Association of Indian universities has proposed that an industrial consortium representing research oriented industries be formed to promote and strengthen linkages between universities/research institutions and industry. It could provide the infrastructure and financial inputs for the research that industries would like universities to do. Actually this goes deeper than what it proposed. In this state for instance a centre has been set up by the Tamil Nadu State Council for Science and Technology for the transfer of technology between universities and industries. Each university may set up a cell to which any industrialist could address his request for technology consultancy or advise and the cell coordinates all the technological research facilities of the different departments and saves the industrialist going from one specialist to another. Similarly industries have established an inventory of their in house research which is made available to the universities and other industries. This information has been computerised and actually is leading to the setting up of a computerised information system on technology transfers. Parallel to this is the plan of the National Institute of Information Technology to set up corporate learning centres in order to help large organisations in the private and public sector to achieve self sufficiency in house training for faster absorption of new technologies and skills in behavioural areas. The centres will administer training organisations on ongoing basis through technology based training resources provided by the National Institute of Information technology and Applied Learning International of the United States. These developments will also help in the renewal of universities and strengthen their interface with industry. Will this also give technology development in industry a more self reliant character ?

Science

Some important developments in the Science & Technology field are reported in November. The special advisor — Industries and the Electronics Secretary, Kerala reports that a software technology park is being set up in Trivandrum along lines of the science parks set up at Tiruchi, Pune and Bangalore. The Trivandrum Park is setting up 100 per cent export oriented software development units. It should guard against falling a victim to the ills of the export oriented units of the country. CLRI reports the development of a new fungal product, clarizyme, that can effectively substitute for the lime and sulphate process now being used for dehairing of leather. Its wide commercial use will also have a social significiance in removing the low social status of the workers in this area. Madras Refineries and Tamil Nadu Energy Development Agency report completing a study on use of compressed Natural Gas to replace petrol and diesel. When approved by the Union Government it will go into commercial operation and relieve the crude oil product shortage following the gulf crisis. The use of this alternative fuel for buses, trucks and taxis is also being planned for Delhi and Bombay and will be a case of technology helping the economy directly and speedily.

Health

The government reports that since 1985 when the Universal Immunisation Programme (UIP) was launched, 8 million children have been protected against 6 diseases responsible for almost 85 per cent morbidity among young. The target set was to cover a minimum of 85 per cent of new born with BCG (against tuberculosis), DPT against diptheria, whooping cough and tetanus and polio and measles vaccine and to cover 100 per cent pregnant mothers with tetanus toxide. This year the target has been reset to cover 100 per cent infants. This rather glaring report is contradicted by surveys of states like UP and Karnataka done by voluntary agencies. Hence it is necessary for the programme to be objectively evaluated. The Union government reports the launching of a massive national Acute Respiratory Ilness Control programme in 15 selected states to reduce early childhood mortality, which account for 10 per cent of such infant mortality. The programme is being implemented through PHCs and rural health workers are being trained in identifying and dealing with the illness The 14 Central Government Health Scheme (CGHS) dispensaries in Madras report an acute scarcity of drugs prescribed by the doctors. They are asked to buy the drugs from the market which defeats the basic purpose of the scheme which is to serve the employees and their families. This defect is manmade and can be corrected.

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V. Employment and Labour Relations

The Eighth Plan's programme of generating massive employment through its decentralized sector (see Vol XX p 520) awaits the new planning commission decision. In the last week of its existence, the last planning commission allocated Rs. 7000 crores for the entire decentralised sector including small sector, village industries, handicrafts etc, spread over the appropriate administrative ministries. Whether this amount will be adequate for the purpose of generating the jobs was not checked before the commission members resigned. For small scale industries, agro and rural works under the industry ministry Rs. 2640 crores were allocated against the Rs. 10,000 crores requested. Now all this will have to await the finalisation of the VIII Plan by the new Planning Commission. Maharashtra reports a very disturbing labour scenario. First, it reports that the level of employment is declining, while the number of registered factories are increasing. Second, it contradicts the rule of the rote computation that every Rs. 1.5 lakh invested in productive assets creates one job. This is not empirically proved. Against 20,000 registered factories employing 12.25 lakh workers two years ago, the latest data at June 30, 1990 shows that even though 2000 new factories were added, the total number of workers employed declined to 11.40 lakhs. In particular this is explained by the labour department as being due to the fact that the additional capital invested has not been used to employ more workers, but in response to trade union pressure has been used to protect the existing workers income by DAs to compensate

for price increases. And as Bombay has the highest rate of inflation in the country — a rise of 408 points out of 4324 for October 1989, additional investment has been used to pay the workers compensating DAs. How far this explanation is true needs to be tested and analysed, but the problem is real — that is in Bombay even in the — all scale additional investment is not producing additional employment but goes along with declining employment. On conditions of labour, ILO regional office in Delhi states that it is carrying out a study of health hazards of plantation workers resulting from their contact with various chemicals and pesticides used by the planters in their plantations. The socio-economic condition of plantation labour in the North East region — Assam, West Bengal, Tripura is so shockingly bad, that plantation workers from the South who were on a 3 week evaluation visit of the North West Plantations were visibly shocked at their conditions.

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VI. Other Items

State Planning Commission

There were two meeting of the State Planning Commission in November to review the Plan resources position which the change of government and the resignation of the members of the Union Planning Commission called for. At a second meeting, despite the uncertainty, the commission established the 1991-92 Annual Plan on certain assumptions of the resources as pointed out earlier.

World Development Report 1990

The World Bank's annual World Development Report 1990 was discussed at a seminar at the Institute of Financial Management. The report was introduced succinctly by the author from the World Bank. There was general appreciation of the data on poverty on both a country and inter-country basis and there was broad agreement with the conclusions that for economic development in the long run, the use of human capital represented by the labour of the poor and direct beneficiary programmes should all be pursued for reducing the number and impact of poverty. The Bank's bias for the market and for an outward looking economy was criticised as being inapplicable to countries like India. There was also an agreement to reconcile the data on poverty in India given by the report with the data published by the Planning Commission and Government of India on poverty by examining the basis and methodology used by either.

BGVS

There were two events in November connected with the Bharath Gyan Vigyan Jatha. November 14 was the date when the Jatha (over 1500 of them) all over India were concluded. The Jatha organised by the Madras unit in the Pachiappa's College slum — was well attended by the local population and the Jatha got its message across of the importance of literacy to the people. The second event was the meeting of the Executive Committee of the Bharath Gyan Vigyan

Samithi in Delhi, when the work in all the 22 states were reviewed and the next steps to follow up the Jathas with actual literacy teaching programmes were agreed upon.

International Seminar on Literacy and Development

To commemorate Dr. Adiseshiah's 80th birthday, the Government of India gave the India International Centre Rs. 1 lakh to organise an international seminar on literacy and development to which some 15 foreign experts were invited. The seminar reviewed the present status of illiteracy in each country and the problems faced by the literacy programmes in them. It examined the problems of population and literacy, gender and class discriminations and literacy and the economic foundation and implication for illiteracy. The conclusions are being presented to Unesco and Government of India to help in the further development of literacy. The President of India entertained the members to tea and reviewed the work of the seminar.

Literacy Broadcast

As a follow up of the World Literacy Day, AIR had a round table discussion on the state of literacy in Tamil nadu and India. The defects of the programmes involving the problems of motivation and relation to the living problems of the illiterate were highlighted together with the means of correcting them.

TNSC S & T

The Tamil Nadu State Council of Science and Technology organised two important events in November. The first was the meeting of the Governing Council of the Centre for the transfer of technology which brings together business leaders, banks which finance technology transfer and universities. The state of the programme was reviewed and it was decided to run seminars in Tiruchi and Madurai to bring the industrialists and universities together to agree upon the means of transferring technology from the universities to industry. It was also decided to launch on an experimental basis a Newsletter which will give information of facilities in universities and the inhouse research programmes of industries. A computerised listing of the programme is being made available to both. The second event was a seminar on land use which brought together the university specialists on coastal ecology and remote sensing and the use of this data by the departments agriculture, irrigation, town and country planning and forestry. As a result of the review, it was decided to recommend to the government to set up a coastal area development authority which will use the data being produced by the universities on ocean life, coastal ecology, ground water resource shown by remote sensing, to improve and increase the inter-action between producers of the information and the users.

Mid Year Review of the Economy

There was a National Seminar on the Mid Year Review of the Economy 1990-91 organised by the Economic Affairs Group of the India International Centre. The document on the Review set forth comprehensively the trend of the various facets of the economy and the extent to which these forecasts were being overtaken by the Gulf crisis. It

was agreed that the problem of fiscal imbalance, balance of payments and trade deficits, exhaustion of the country's foreign exchange reserves, the mounting foreign debt and the inflationary spiral were the major problems that need attention and control.

SRC and TNBCE

There was the meeting of the new Governing Body of the State Resource Centre set up after the elections of the new executive committee of the Tamil Nadu Board of Continuing Education. The Governing Council reviewed the follow up of the recommendations addressed to it by the Triennial Conferance and decided to pass in review the follow up actions at every one of its sessions. It reviewed the large volume of work for promotion of literacy — in training and material production — of the Centre during the two months since the last meeting of the council and gave some guidance for future activities. The Executive Committee of TNBCE welcomed the new members and took note of the transfer of responsibilities from the old to the new committee. It also reviewed the state and progress on the construction of the Board's permanent headquarters. It agreed upon the regional meeting to be held this year.

December Development Seminar

The Paper for the December Seminar, (Draught Animal Technology in Tamil Nadu) by Dr. R. Prabhakaran together with a summary of the discussion of the seminar appears as the first article.

Second Article

A note on Some Aspects of Rural Development set forth in the Approach Paper for the Eighth Plan appears as the Second Article.

MIDS News

Dr. S. Neelakantan delivered the inaugural address on 13th December at the Ecofest in Loyola College, Madras on the theme "Tamilnadu Economy and Eighth Five Year Plan".

He also participated in Ecotimes '90 at DDGD Vaishnava College and delivered a lecture on "Evaluation of economic ideas — A relativist exposition" on 14th December.

He attended 73rd Annual Conference of the Indian Economic Association and presented a lead paper on "Alfred Marshall's principles of economics: A Centennial Appraisal" on 28th December, 1990 at University of Bihar, Muzaffarpur.

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Dr. P. Radhakrishnan addressed the Rotary Clubs of Ambattur on Mandal Commission and reservations on 18th December, 1990.

He also addressed the faculty and students of the Anthropology Department of Madras University on the same subject on 19th December, 1990.

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Dr. Padmini Swaminathan participated in the IVth National Conference on Womens Movements in India, held at Calicut from 28th - 31st December, 1990 and presented a paper on "Gender and Social Justice: A Critique of Planning in India".

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Dr. Ward Morehouse, President, Council on Internatioual and Public Affairs and Research Associate, Southern Asia Institute, Columbia University, New York, pursuing research on "Environment and Industrial Development in India: The Search for new mechanisms of accommodation" visited the Institute and addressed the faculty and scholars on 19th December, 1990.

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Dr. V. Rajagopalan, Vice President, Policy, Research and External Affairs Division of the World Bank, formally met the Chairman and the Faculty of the Institute and addressed them on 5th January, 1991.

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Dr. A. Vaidyanathan gave a talk on "My Year on the Planning Commission" on 10th January, 1991.

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State of Affairs of Draught Animal Technology — Tamil Nadu (India)

by

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Tamil Nadu is the southern most State in the Indian subcontinent which covers a little over 1,30,000 sq. km., representing about four per cent of India's geographical area. In 1981, Tamil Nadu had a population of 48.41 million, which makes it the seventh largest state in the country and it is one of the most densely populated States in India, with 372 persons per sq. km., compared to All India figure of 221.

Agriculture is the major sector of the State economy. In the State, the contribution of agriculture (including crop, livestock, fisheries and forestry) to the Net State Domestic Product (NSDP) at constant prices, has been undergoing a decline over the years. From 52 percent in 1960-61, it declined to 40 per cent in 1969-70. The decline from 1970-71 to 1981-82 was from 39 to 29 percent. Although, the relative share of agriculture in NSDP has declined, the occupational structure of the working population has not undergone, over the years, any significant transformation. Thus, a vast majority of the population still depend on traditional agriculture.

Tamil Nadu is known for certain specific draught breeds viz., Kangayam, Umbalachery, Punganur, and Alambadi. Unfortunately the breeds are slowly vanishing from the agricultural scenario over the last three decades. Many factors have contributed to the present situation of declining trend in the density of draught animal stock in Tamil Nadu. To name a few, cross breeding with exotic breeds for enhancing milk production, continuous drought (dry spell), widespread mechanisation in terms of tractorisation and energisation of wells, high cost of feed inputs to maintain draught animal stock, opportunity cost of milk production, social conditions and institutional support for tractorisation have added new dimensions to the issues of proper utilisation of motive power.

The historical evidence shows that though work animal population increased in absolute terms, the density, i.e., work animals on the basis of net sown area remained more or less static at All India level ; while the density of draught animal stock in Tamil Nadu has registered an increasing trend in 1961 and tapered off in the year 1982 and remained at 0.78 animals per hectare of net sown area (Table 1). Interestingly there was a steady increase in the number of tractors from 1961 onwards. Density of tractors per 100 ha of net sown area also registered an increasing trend from 0.01 in 1951 to 0.31 in 1982 (Table 2).

It is intuitively felt, that the density of draught animal stock is bound to decline in the years of draught for want of adequate roughage and employment. It is assumed that if the rainfall is 20 per cent below normal (945.7 cm) it is considered as a year of draught. It was observed that in closely related years, i.e., 1980-81 and 1982-83 (Table 3) there were severe droughts which might have forced the farmers to dispose off their draught animal stock.

Even in normal years, on an average animals were employed only for 72 days and remained idle for 293 days. Among the days employed, nearly 59 per cent of the days were utilised for crop production, followed by other than crop production (25.90%), hired out (8.96%), exchange (2.97%) and social or family work (2.88%) in that order (Table 4).

Factors affecting the proper utilisation of draught animal technology :

1. Seasonality in agricultural operations

Agricultural operations in the State, are being highly seasonal and all activities will be hectic in order to complete the various tasks within a given time. Hence, the demand for animals will be high and almost skewed in nature. The preparatory cultivation, levelling and weeding are to be completed approximately within a fortnight. Afterwards, the animals will be mostly lying idle as there is limited scope for utilising them for other purposes. The gravity of the problem is more pronounced after the introduction of light commercial vehicle, tillers and tractors.

2. Maintenance of Draught animals

By and large, the draught animals are fed with agricultural by-products like paddy straw and rice bran which are rich in cellulose and carbohydrate. The animals are seldom fed with balanced ration even to meet the maintenance requirement. This situation is more common in the rural areas. In a typical village, it was observed that only 40% of maintenance requirement was met especially among small farmer category. The animals mostly survive on kitchen waste water (mixture of gram husk, water obtained after boiling rice, remnants of vegetable etc.) and scarce grass available on field bunds.

In the recent years, availability of paddy straw is also precarious since it

TABLE 1

Trend in Draught Animal Population (1951 - 82)

Particulars		1951	1956	1961	1966	1974	1977	1982
Draught animal Population (10^6)	India	67.38	70.68	77.99	78.52	80.05	80.63	81.22
	Tamilnadu	5.44	5.95	6.29	6.17	5.70	5.70	4.25
Draught animal Population - Cattle (10^6)	India	60.81	64.32	70.85	71.17	72.67	72.98	NA
	Tamilnadu	5.03	5.47	5.73	5.60	5.24	5.25	3.95
Draught animal Population - Buffalo (10^6)	India	6.56	6.37	7.14	7.35	7.38	7.65	NA
	Tamilnadu	0.41	0.48	0.56	0.57	0.46	0.45	0.30
NSA (10^6) hectares	India	118.75	126.19	133.20	136.20	139.37	140.23	140.27
	Tamilnadu	5.27	5.78	6.04	6.03	5.91	6.18	5.45
Density of draught animals per hectare of net sown area	India	0.56	0.55	0.59	0.58	0.57	0.58	0.58
	Tamilnadu	1.03	1.03	1.04	1.02	0.96	0.92	0.78

NA = Not Available

NSA = Net Sown Area

Source : Draught animal population : Livestock Censuses of India and Tamilnadu

Net Sown Area : Statistical Abstract (various years), Govt. of India and Govt. of Tamilnadu.

TABLE 2

Agricultural Machinery and Implements in Tamilnadu (1951 - 82)

Particulars	1951	1956	1961	1966	1974	1977	1982
Tractors	241	822	934	3278	7107	8548	16780
Oil engines	14013	29986	36832	42852	234416	276046	205414
Electrical pumps	15104	23997	98481	208485	681205	784643	945371
Ploughs	NA	NA	3429902	3771672	3677359	3639832	3847386
Bullock carts	NA	NA	664544	627768	594873	630527	579631
Density of tractors per 100 hectares of Net Sown Area	Negli-gible	0.01	0.02	0.05	0.12	0.14	0.31

NA = Not Available

Source : Livestock censuses of various years.

TABLE 3

Rainfall Pattern of Tamil Nadu

(in mm)

Year	Total rainfall	Percentage to Normal
Normal	945.7	100.00
1958-59	708.9	74.96
1959-60	832.5	88.03
1960-61	978.3	103.45
1961-62	867.0	91.68
1962-63	931.5	98.50
1963-64	907.6	95.97
1964-65	859.1	90.84
1965-66	870.9	92.09
1966-67	1152.8	121.90
1967-68	958.8	101.39
1968-69	682.5	72.17
1969-70	1036.7	109.62
1970-71	918.0	97.07
1971-72	968.8	102.44
1972-73	990.7	104.76
1973-74	842.2	89.06
1974-75	647.4	68.46
1975-76	857.2	90.64
1976-77	941.4	99.54
1977-78	1123.7	118.82
1978-79	949.8	100.43
1979-80	1091.3	115.40
1980-81	669.3	70.77
1981-82	956.2	101.11
1982-83	662.6	70.06
1983-84	1221.3	129.14

Source : Statistical Hand Book, 1984, Department of Statistics, Madras.

TABLE 4

Average Employment and Unemployment Per Pair of Draught Animals in Coimbatore District (1984-85 to 1986-87)

(in Bullocks pair days)

Group	Crop production	Other than crop production	Exchange	Social or family work	Hired out	Total Number of days employed	Number of days not worked
I (1 ha)	34.88 (58.02)	12.07 (20.08)	2.67 (4.44)	1.37 (2.28)	9.13 (15.18)	60.12 (100.00)	304.88
II (1-2 ha)	36.63 (57.15)	15.46 (24.12)	2.55 (3.98)	1.64 (2.55)	7.82 (12.20)	64.10 (100.00)	300.90
III (2-4 ha)	43.37 (59.22)	19.32 (26.38)	2.14 (2.92)	1.89 (2.58)	6.51 (8.90)	73.23 (100.00)	291.77
IV (4-6 ha)	46.19 (59.72)	21.73 (28.10)	1.87 (2.42)	2.58 (3.34)	4.97 (6.42)	77.34 (100.00)	287.66
V (6 ha)	52.71 (61.42)	24.85 (28.96)	1.49 (1.74)	2.93 (3.41)	3.84 (4.47)	85.82 (100.00)	279.18
Average	42.76 (59.29)	18.68 (25.90)	2.14 (2.97)	2.08 (2.88)	6.46 (8.96)	72.12 (100.00)	292.88

Figures in parentheses are percentages to the total number of days employed

fetches attractive returns in the neighbouring Kerala State. With the result, the local farmers are deprived of much needed paddy straw atleast to meet a minimum requirement of their cattle. Further, the treatment given to a milch animal is somewhat superior as compared to a work animals, on two counts. One is, the regular income derived from the sale of milk and social value attached to a cow.

3. Tractorisation vs Animal Draught Power

Majority of the farmers in the State prefer to employ tractor, as own or hired, in tilling the soil for very many reasons. The cost of hiring a tractor is almost equal to cost of hiring a pair of bullocks. Even if it is marginally higher, still certain class of farmers favour tractor mainly to cover a larger area within a given time and most important thing is to avoid confrontation with the person who own draught animals. Added to this, the younger generation in the farming community especially, among large farmers, show preference to tractors so as to keep pace with the technological developments and also to wield power on fellow farmers.

The institutional support is also strong towards tractorisation for obvious reasons. Liberal credit facilities for the purchase of tractors, prompted many progressive farmers to go in for tractorisation.

4. Energisation of wells

Availability of electrical power at a cheaper cost for the agricultural purpose and receding water table in many areas made the farmers to switch over from animal energy to electrical energy in bailing out the water for irrigation.

5. Constraints in the improvement of bullock drawn carts and implements

Concerted efforts are being taken to improve the design of bullock carts in order to increase the efficiency of animals. But attempts made so far met with limited success because of prohibitive cost and lack of promotional efforts. Though the R & D is aimed towards the target group of farmers, the resource endowments of such farmers are very meagre which prevent them in adopting the new technology. Specifically, pneumatic tyre fitted carts are known for easy traction but the cost of investment and replacement of tyres, road conditions and availability of tyres are the limiting factors in the adoption of improved technology. All these things come in the way of modernisation of animal drawn vehicle. Likewise, the implements for ploughing and levelling the land are of traditional type and no appreciable improvements have been made in the existing implements. Above all, subsistance nature of the farming system forces/makes the farmer to keep away from mechanisation.

6. Socio-economic features

The effective utilisation of animal draught power is fraught with certain peculiar problems. The bargaining power of draught animal owner, who does not own land is more in areas where there are lot of opportunities for the person himself to seek employment and in that situation they collectively reduce the hours of cultivation work thereby putting the land owner into task. It is interesting to note that per day bullock labour hours are less in the highly fertile as compared to most dry tracts where the per day bullock labour hours are more for the simple reason that the person who owns bullocks has very limited opportunity for finding employment elsewhere. Because of such peculiar attitude of bullock owners, the farmer who wants his land to be cultivated, seeks help from tractor owners and get things done without any risk.

Thus, the attitude of the person who owns work animals also has a bearing on the utilisation of draught animal technology to a greater extent. In certain cases, the younger generation of farmers does not like to go behind the animals simply because of attitudinal changes in the society.

Inspite of several constraints, draught animal technology still rules high in certain areas of agricultural operation. Fragmentation of land holding, the average size being less than 2 hectare, warrants the animal energy rather than mechanical energy. Also, if the land area is divided into small plots, it would be difficult for the tractor to move from one area to another area and incidentally the farmers prefer to have bullocks in such situations. Still, thrashing of grains by animals is considered to be superior as compared to tractors.

Though the tractors are fast to cover larger area in a specified time, levelling of the land after ploughing is being done only by animal drawn implements in many areas. It becomes highly essential that animals have to be used at any one point of time in the agricultural operations.

Policy Issues

How best to maintain the draught animal stock during the periods of employment and unemployment? How to motivate the farming community to modernise their practice given the resource endowment? What specific technology is needed by them? What is the missing link between the R & D establishments and the farmer? What sort of institutional support is needed the development of draught animal technology? These are the few simple issues that need to be given a serious thought in harnessing the hidden power of draught animal technology.

Summary of Discussion

The chairman opened the seminar by outlining the importance of draught animals in the livestock economy of the state. He then characterised it as being one of low productivity in terms of milk, meat and draught power. He requested the author to bring up policy measures keeping in mind the linkages between draught animals and other sectors of the economy.

The author began his presentation by giving a brief overview of the change in the orientation of the bovine economy from one of provision of draught power for agriculture to one of provision of milk for human consumption. As a consequence the cross breeding of cattle was taken up in a big way to the deteriment of draught animals.

The author attributed the decline in the importance of draught animals to the mechanisation of agriculture, drought, lower rates of utilisation, high cost of maintainence and the changes in the occupational structure. The author asserted that the introduction of tractors and the energisation of wells has led to a fall in the number of draught animals. He said there is a negative correlation between the density of tractors and the bullock density. This he said is primarily due to the lower cost of hiring in tractors when compared to that of bullocks. As a consequence of the energisation of wells the water table has gone so low that it is not possible to use bullocks for bailing water. Hence the mechanisation of agriculture has led to a drop in the density of work animals.

The fluctuation in rainfall has led to a situation were the farmer is not in a position to maintain work animals as agriculture itself has become too risky. In years of draught there is a great deal of sale of draught animals for slaughter as a result the draught animal population has declined.

Fragmentation of land holdings has led to a drop in utilisation rate of work animals. Quoting the results of a study that the author has conducted in four districts of the state the author said in most parts of the state the number of days a draught animal is used is 30 days. For the rest of the days the animal is idle. This coupled with the high cost of feed he said led to the neglect of the draught animal. The cost of paddy straw has gone so high that farmers in certain districts such as Ramanathapuram are dependent on the government for supplies. This he attributed to the high price commanded by paddy straw in Kerala. The result is that only 40% of the feed requirement of the draught animal is met. Even this consisted of kitchen waste and roughage available in the village commons.

Changes in the occupational structure in the form of expansion of non agricultural employment has made it expensive for farmers to hire in labour for looking after draught animals, furthurmore the number of labourers with bullocks has declined so sharply that farmers are unable to hire bullocks when they needed them most. This also contributes to the increased use of tractors for soil preparation. In this context the author made a comparison of the use of draught animals in the districts of Ramanathapuram and Kanyakumari. In Ramanathapuram, the author said there is a system of cooperation in the use of bullock labour as the soil in the district is black cotton soil which required heavy ploughing. While in Kanyakumari where the soil is a sandy loam not much draught power is needed therefore the animals are utilised much less. The author then dealt with the problem of improvement of draught powered implements which he said is not cost effective and that such improvements that has been made has not resulted in widespread adoption.

From the points made during his presentation the author raised the following questions for discussion: How best to improve the utilisation of draught animals? What sort of institutional support needs to be given for the development of draught animals? The type of technological innovations that are required to improve draught efficiency? The chairman then opened the paper for discussion.

One participant questioned the claim of the author that the draught animal population has declined. He alleged that the livestock census is an underestimate. If a comparison is made between the estimate provided by the 37th round of the NSS and the livestock census of 1982 one found that there is a 60% differential between the two he said. He then went on to state that studies done in Punjab has shown that tractorisation has not led to a complete elimination of bullocks in fact farms with tractors tended to carry more bullocks as an insurance against breakdown of the tractor during the sowing season. Similarly in the case of energisation of wells it is not clear that it has led to a reduction in draught animals as they found greater usage due to higher intensity of cultivation under conditions of ground water irrigation. He said what is important is that there is no breeding policy with respect to bovines keeping in view the twin requirements of draught power and milk production.

Another participant intervened to say that from his personal observation there has indeed been a decline in the draught animal population owing to mechanisation. He said costs in terms of timely preparation of land and in terms of maintanence of work animals were so high as as to necessitate the use of tractors for the preparation of the soil. The introduction of pumpsets has furthur attentuated the fall in the draught animal population.

Yet another participant observed that the introduction of pumpsets has led to the reduction in the labour use. This was countered on the ground that even if an attempt is made to reverse this trend it would not be possible as the technique for training bullocks for most work is now absent in the villages.

One participant observed that the displacement of bullocks is an inevitable economic process and feld that the plea of the author to develop draught power in the state is uneconomic. This was countered on the ground that tractors only tilled a small proportion of the gross cropped area hence it is in the interests of agriculture that draught power is developed. A strong plea was made by a participant for greater allocation of financial resources to the Department of Animal Husbandry during the 8th five year plan period. The chairman then summed up the discussion saying that there is a need for a fresh look at the orientation of the bovine economy and consequently to review the breeding policy currently adopted in the state.

GEORGE MATHEW

Rural Development in the Approach Paper

Prefatory

Two prefatory comments should be made about the approach of the Eighth Plan Approach Paper.

First, the Approach is rightly set in the form of broad guidelines, standards and policies, leaving it to the states and local level institutions to develop the relevant programmes and appropriate projects. It is hoped that this guidelining, standard setting approach will be maintained in the formulation of the National Plan, which will have to set the financial ceilings - availabilities and sectoral and inter-state distribution-for the Plan, external trade accounts involved in and for the Plan, review and approve the large nation wide projects such as railways, steel and non ferrous metals, crude oil and gas production.

Second, the Approach has moved away from the concentration on numbers, which have had such a fascination for all of us in the past. These numbers relate to the overall growth rate target for the economy, the saving rate, the ICOR, the percentage of families living below the poverty line, the various demographic numbers. These numbers are capable of manipulation and in some cases have been, as in the numbers of persons crossing the so called poverty line ; they are also not ever realised, the gap between the proposed number and actual attainment widening over time ; and they have distracted our attention away from the substance, which is the raising of the peoples living standards (Adiseshiah 1989). The numbers set forth at the end of Approach Paper seem forced, adhoc and do not flow from the

*Note by Dr. Malcolm S. Adiseshiah for the Special issue on VIII Plan Draft Approach Paper, Kurushetra, New Delhi, June 18, 1990.

policies and guidelines formulated in the paper.

Decentralisation

As far as rural development is concerned, which is concerned with the growth and improvement of 85 per cent of the country where 75 per cent of its people live, such development cannot be ordered from the national capital through the National Plan, or a department of Rural Development, or that of similar institutions in the capital of the states. It is a function of the planning and related action of local bodies, panchayats, panchyat unions, panchayat councils. Thus the guidelines of the Approach Paper to "transfer a substantial part of the responsibility for planning and execution of economic and social development programmes to elected representative institutions of the local government" is welcome and over due. There are some issues here on which further work is need. First, in addition to the 7 subjects to be transferred proposed in para 7.5 of the Paper, adult literacy should be added to primary education, maternity, child health and family planning should be added to health, and agriculture and allied activities, village industry and anti-poverty programmes should be added. Second, elected local bodies exist only in 6 out of 22 states so that in addition to speeding the process of local elections in the other states, interim arrangements through the block development officer should be made. Third, while such local level planning and administration will ensure growth at the local level, to combine such growth with what the Approach Paper calls an equitable distribution of its benefits there should be land reforms as in West Bengal and Kerala which should precede local elections, so that elected representatives are representatives of the local community in terms of incomes and assets distribution. Fourth, an essential feature of this system is to make available the staff and adequate financial resources to the local body, which in the former case faces resistance from the staff, and in the case of finance faces similar opposition from the state government and the state bureaucracy. This must be faced, by drastically reducing the direct involvement of the state in local level government, the state providing the needed expertise and infrastructure to the local bodies.

Agriculture

Rural development is equivalent, in the main, to the development of food and cash crops and their needed inputs—irrigation, fertiliser, seeds and other research inputs—animal husbandry dairying and poultry farming, fisheries—inland and marine—forestry, and agri and agro industries. The Approach Paper calls, attention to the urgent need to correct the distortion in this major area of rural development introduced by our planning to date, which has, on the one hand, reduced the contribution of this sector to national income from over 50 per cent at the start of the planning process to 29 per cent today, with only marginal reduction from 72 percent in 1972-73 to 65.7 per cent in 1987-88 (according to NSS 27th and 43rd rounds) of the labour force dependent on it. The means of injecting new life into this sector is through a) development of the rain fed areas constituting over 70 per cent of the cultivated area, b) land and water use planning, particularly the development of water sheds and command areas, c) the expansion and improvement of agricultural facilities, d) trying up laboratory research to the farm and field needs, e) giving equal importance in investment and inputs to market gardening, horticulture, seri-culture, poultry, fishing, dairying and animal husbandry, agro processing and the backward and forward linkages to with the manufactures industries, f) increasing agricultural exports which will also increase the farmers income and g) which in the last analysis depends on agricultural prices where policy should aim at evening out wide fluctuations and provide the needed incentives for adoption and adaptation of modern technology and so increase output and rural capital formation.

Investment in Rural Development

In this manner, to bring agriculture back to being an industry, occupying a central place in the economy, the Approach paper proposes ' that the proportion of development outlays on schemes benefiting the rural population must be significantly raised, the target being 50 per cent". In this proposal to raise rural development outlays to the 50 per cent target, there are several issues that need clarification. First, it is not only the union sector public outlay that is involved, but much more agriculture and rural development generally being states subjects, also the outlay of the states must be taken into account in making the computation. But such states data is available only with a time lag. Second, the outlay in question must be not only that of the government—union and states—but also an increasing share of private sector outlays, particularly gradually, their investment in the 180 million acres of wastelands which is to be brought under cultivation On this no hard data is available, only guestimates.

Third, there must be some agreement on what of the 13 items on which the public sector outlay of the union and states is allocated should be included in computing the 50 per cent target. While some items like agriculture and allied subjects and irrigation belong wholly to the rural development category, there is the problem of agreeing on the percentage of outlay on such items as energy, transportation, communication and even education and health which should be ascribed to rural development. The table below provides a comparative profile of union and states and UTs investment in agriculture and allied activities, irrigation, rural development and village industries over the 7 plan periods.

In the above table the outlays set forth under items 8 to 11 are based on the assumption that 20 per cent of the power outlay is for rural areas, 15 per cent in the case of transport including railways and communication, 66 per cent in education and 60 per cent in health. On this basis, the continuing decline of the union outlay, and the states and UTs outlays (except for the VI & VII Plans) should be noted : as a consequence the total outlay of the country on agriculture and rural activities in the plans is seen to be declining sharply. This is disturbing and explains the approach to agriculture and rural investment in the Approach Paper. In this connection, a Planning Commission study in early 1990, estimat) that the attainment of the 50 per cent target of public sector outlays for rural areas and peoples will require that the share of the states (and UTs) plan on rural activities would have to be raised from the current 59 per cent to 65 per cent, and that of the union sector from the 32 per cent to 35 per cent. It shows that in the VII Plan

TABLE I*

	I Plan 1951–56			II Plan 1956–61			III Plan 1961–66			IV Plan 1969–74		
	Union	States & UTs	Total	Union	States & UTs	Total	Union	States & UTs	Total	Union	States & UTs	Total
1. Agriculture 2. Forestry 3. Animal husbandry 4. Fisheries 5. Irrigation 6. Rural Development 7. Village & Cottage Industries	45924.70,	37595.60,	83520.30,	21790.81,	95120.23,	12461.23,	26380.00,	147552.00,	173942.00,	593.88,	1526.71,	2125.69,
Percentage of above to total outlay	54.92	45.07	45.41	22.36	76.32	25.91	15.16	84.82	21.94	38.84	71.82	13.31

	V Plan 1974–79			VI Plan 1980–85			VII Plan 1985–90		
	Union	States & UTs	Total	Union	States & UTs	Total	Union	States & UTs	Total
1. Agriculture 2. Forestry 3. Animal husbandry 4. Fisheries 5. Irrigation 6. Rural Development 7. Village & Cottage Industries	1633.49,	2862.91,	4496.33,	7000.40,	20779.67,	27783.93,	11078.07,	31445.85,	42523.92
Percentage of above to total outlay	36.32	63.17	11.41	33.62	74.78	28.49	26.01	73.94	23.6

The table shows the declining percentage in the Union and state UTs public sector outlay on agriculture and related activities over the 7 plan periods, with some recovery in the V Plan, a despite high shares from the states and UTs. The first thing to do is to arrest the declining trend in overall (total) outlays.

Source: Seven Plan Documents

TABLE II*

	I Plan 1951 – 56			II Plan 1956 – 61			III Plan 1961 – 66			IV Plan 1969 – 74			V Plan 1974–79			VI Plan 1980 - 85			VII Plan 1985 – 90		
	Union	States & UTs	Total	Union	States & UTs	Total	Union	States & UTs	Total	Union	States & UTs	Total	Union	States & UTs	Total	Union	States & UTs	Total	Union	States & UTs	Total
1. Agriculture 2. Forestry 3. Animal husbandry 4. Fisheries 5. Irrigation 6. Rural Development 7. Village & Cottage Industries 8. Power 9. Transport & Communication 10. Education 11. Health	62478.88,	53339.98,	115838.76,	64056.67,	123123.20,	188779.24,	60769.40,	212477.35,	273246.75,	1266.82,	2465.88,	3854.40,	2785.27,	5236.20,	8439.76,	11056.76,	26079.55,	37139.72,	22743.60,	40940.28,	63713.5
Percentage of above to total outlay	50.31	64.40	55.94	25.00	54.90	39.30	14.91	52.82	33.94	15.16	35.01	24.21	13.19	27.02	21.42	23.19	52.89	38.09	12.82	48.41	35.34

* The table sets forth the Union and UTs Public Sector Outlay on items benefiting the Rural Population

Source: Seven Plan Documents

Rs. 99,521.25 crores were spent on rural activities, out of the total public sector outlay of Rs. 222,169,25 crores, which means 44.8 per cent was spent and this should be raised to 50 per cent. Given the uncertain base on which all the above computations are made and the possible divergences on which and how much under certain items constitute realistic and effective expenditures that benefit rural areas and peoples, these calculations could be pursued mainly, if not solely, as an approximate monitoring check on all outlays, public and private, union and states and UTs, with the corollary that they have to be increased both per se and through diversion of outlays from non rural activities to rural ones. This would be assured by replacing the present production and distribution model by the wage goods model. The priority proposed to be given to ihvestment in agriculture and rural development is a one small step in that direction.

Rural Development, Employment and Poverty Alleviation

Rural Development

Rural development is thus the resultant of a complex of investments and activities starting with investment in agriculture and related activities and going on to land reforms, which comprise land ceilings and their effective and speedy enforcement, distribution of and means for development of the surplus land distributed, comprehensive regularisation of tenancies, minimum wages revisions and enforcement provision of homesteads. Here a good start has been made in the recent 66th constitutional amendment which brings all facets of land reforms under the Ninth schedule, which should counter benami deals and cut short interminable delays, lasting in some cases to over 30 years in land reform settlement. A second aspect of rural development is the speedy enforcement of some crucial elements of what has come to be called the 20 point programme, dealing inter alia with adult illiteracy and rural primary education, access to health facilities to all rural people with special emphasis on a rapid reduction of infant mortality, provision of drinking water to all villages. A third aspect is what has come to be called the integrated rural development and anti-poverty programmes under, which around Rs. 5000 crores have spent annually on various projects called IRDP, NREP, RLEGP now grouped under JRY, DWACRA, TRYSEM, which are all essential relief programmes to meet the problems faced by the unemployed and under employed. These short term relief efforts are needed to meet the needs of the rural poor, for which the fragmentation, leakages, overlaps and planning and management of the programmes from Delhi and/or state capitals are replaced by their being run by local villages or panchayats, who are the only ones who can identify the poor families and ensure that the relief effort reaches them.

Employment

At the heart of the Rural Development effort is the generation of gainful employment — gainful because over 70 per cent of rural employment is under employment, disguised unemployment, mis-employment at sub human incomes.

The table below gives the rates of rural unemployment and under employment as percentage of the labour force.

TABLE III

Rates of Unemployment (% Unemployed to Labour Force) during 1983 and 1987-88 by Sex and residence status

Worker	Year	Rural Male	Female	Total	Urban Male	Female	Total	Total (R&V)
UPS	1983	2.12	1.14	1.91	5.86	6.90	6.04	2.77
	1987-88	2.87	3.52	3.07	6.07	8.77	6.56	3.77
WS	1983	3.72	4.26	3.88	6.69	7.46	6.81	4.51
	1987-88	4.16	4.27	4.19	6.71	8.93	7.12	4.80
DS	1983	7.52	8.98	7.94	9.23	10.99	9.52	8.25
	1987-88	4.58	6.91	5.25	8.79	12.00	9.26	6.09

UPS = Usual Principal Status. A person is considered unemployed according to this concept if he/she was available for but without work for a major part of the year.

WS = Weekly Status. A person is considered unemployed according to this concept if he/she, though being available for work did not have work even for one hour during the reference week.

DS = Daily Status. It is a measure of unemployment in terms of person days of unemployment of all the persons in the labour force during the reference week.

Source : 38th & 43rd round of NSS : Papola 1990

In 1987-88 unemployment in person years was estimated to be 12.43 million (usual principal status), 15.30 million (weekly status) and 18.95 million. One important structural change in the rural labour force brought out in Table III that should be noted is that while it shows that daily status of unemployed labour in person days has declined from 8.25 per cent in 1983 to 6.09 per cent in 1987-88, the percentage of unemployed workers has increased from 2.77 to 3.77 during the period, which shifts the focus from predominant under development to increased open unemployment. (Papola 1990) : Another worrisome structural change in the rural work force is the sharp and steady increase in the casualisation of labour at the cost of the self employed and the wage employed as the table below shows.

TABLE IV

Percentage Distribution of Workers by Category of Employment

	Rural Male	Rural Female	Rural Total	Urban Male	Urban Female	Urban Total	Total (R+U)
Self Employment							
1972-73	65.9	64.5	65.4	39.2	48.4	40.9	61.4
1977-78	62.8	62.1	62.5	40.4	49.5	42.4	59.3
1983	60.4	61.9	61.0	40.9	45.8	41.9	57.3
1987-88	58.6	60.9	59.4	41.6	47.1	42.8	56.3
Salaried Regular Employment							
1972-73	12.1	4.1	9.2	50.7	27.8	46.4	15.3
1977-78	10-6	2.8	7.8	46.4	24.9	41.7	13.2
1983	10.3	2.8	7.5	43.7	25.8	39.9	13.7
1987-88	10.0	3.6	7.7	43.4	27.5	40.2	13.7
Casual Wage Employment							
1972-73	22.0	31.4	25.4	10.1	23.7	12.6	23.3
1977-78	26.7	35.1	29.7	13.2	25.6	15.9	27.5
1983	29.2	35.3	31.5	15.4	28.4	18.2	28.9
1987-88	38.4	31.4	32.8	14.7	25.4	17.0	29.9

Source : 28th, 32nd, 38th & 43rd rounds of NSS : Papola 1990.

The table shows the sharp increase in the casualisation of rural labour as compared to urban labour involving 31 per cent of rural males and 30 per cent of rural females. The need therefore is for full time gainful employment which is the major task of the rural development programme. The need for gainful employment, as pointed out is to counter the growing casualisation of labour and the lowly wages attached to it. Here there is a multi faceted dilemma. The minimum wages for the unorganised rural labour, as pointed out by National Institute of labour and which all the state funded anti poverty programmes follow, varies among the states from Rs. 8.50 to Rs. 12.75 per worker per day. Second, the Institute also points out that even taking the higher rate which works out to Rs. 3600 per annum, the poverty line having been officially established at Rs. 6400 per annum, it means that in all states, except Kerala, the minimum wages force the rural workers and his family to live in poverty. What is worse, as further pointed out by the Institute, that even these low minimum wages are not paid in any state (except Kerala), that records and registers that are required to be maintained are not maintained, and that the actual wages paid and other payments in kind average about 50 per cent of what is legislated. Here what is needed is for the National Commission on Rural Labour which has been reorganised in May 1990, to help implement the minimum wages legislation by the states as suggested by the 1986 labour ministers conference, which also requires that the wages be reviewed every 2 years, in light of the rising cost of living.

The Approach Paper sets a target of 3 per cent annual rate of increasing employment over the Eight and Ninth Plan on the assumption that the labour force will be increasing at over 2 per cent. This target has to be broken down between the 12/13 areas of rural development set forth in tables 1 and 2. An attempt is made to do this in the table below.

TABLE V

Growth and Structure of Rural Employment

	1972-73 to 1977-78	1977-78 to 1983	1983 to 1987	1972-73 to 1987-88	Structure : percent of total rural employment in 1987-88
	(growth rate per annum)				
Agriculture	1.96	1.27	0.39	1.1	78.01
Mining & Quarrying	5.83	4.94	5.56	5.41	0.59
Manufacturing	5.89	3.19	2.84	3.95	7.34
Electricity, Gas and Water	15.71	3.59	5·36	7.90	0.17
Construction	1.52	6.26	17.91	8.09	3.37
Trade	8.75	2.67	4.74	5.25	4.09
Transport	7.14	7.10	55.56	6.64	1.32
Services	4.45	3.39	2.06	3.32	5.11
Total	2.53	1.68	1.00	1.75	100.00

Source : NSSO Rates and Population Projections of the Expert Committee on Population Projection : Papola (June 1990).

As manufactures generate employment at 3.6 per cent per annum during 1972-73 to 1987-88, of which 80 per cent is due to village and small industries, a much lower rate of employment, it is agriculture and allied activities and village and small industries which will have to generate a higher rate (say 5-6 per cent) of employment, which can be done if the detailed local plans are provided the technology and inputs to attain both efficiency and higher output.

In the employment area, there is also the need to provide for those in the 1st two bottom declines who are and will never be covered by any of the employment generating or poverty alleviation programmes. For them, a targeted social security system is needed which will help rehabilitate the handicapped, widows and orphans, create maintain a rather wide old age pension scheme and the extension of life insurance for the poor, with a subsidy from the union and state governments as a means of survival benefits. (Guhan 1985).

It is these various facets of employment generation and poverty alleviation — of generating employment at an annual average of 3 per cent with agriculture and VIs at 5 to 6 per cent, of enforcing a viable revised minimum needs programme and of launching a targeted social security system — that are incorporated in the Right to Work as set forth in the Approach Paper. That the right is also financially feasible and viable has been established in the article set forth in Kurukshetra Vol. XXXVIII No. 6 March 1990 (Adiseshiah 1990). The fiscal measures proposed by the Approach Paper begins with the results of the reorientation of rural development in bringing about a more efficient use of available resources and goes on to list the raising of productivity of fertiliser in agriculture, the urgency of energy conservation, on to improving tax administration and arresting the deterioration of the revenue budget. These generalities are sound and good, but they miss out the specifics which can begin to set right the fiscal imbalance — namely annual percentage reduction in a) the swollen staff of the union and states governments during the Plan period, b) the specific amounts in defence wastages, and c) bourgeosing subsidiaries. These will also contribute to the financing of the top priority of the Eighth Plan — which is the Right to Work, as the key to Rural Development.

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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 Tamilnadu and India.

The activities of the Institute are:

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BULLETIN

MADRAS DEVELOPMENT SEMINAR SERIES

Vol. XXI No. 2 February 1991

Promotion of Small Industry in Tamil Nadu
The missing Dimension

The Current deficit and its 'Malcontents'
A consideration in balance of payment adjustment

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EDITORIAL - SOME HIGHLIGHTS

I. General Economic Scene

State

Planning Commission

In December there were two meetings of the Planning commission at which Project Hunger and its implications for the state's VIII Plan was reviewed. At a second meeting on the irrigation sector in the state's Eighth Plan was discussed the major highlights established for review by the full meeting of the Commission. There was also an examination of the Rural Development sector in the state's Eighth Plan. It is noted that the state's Eighth Plan is in a far more advanced stage of drafting and preparation than the National Plan, whose status is still under discussion and will be referred to later.

Weather and Prices

Before the North East monsoon terminated by mid December, there was wide spread rains all over the state, with, for instance Tiruthuraipoondi recording 6cm of rainfall in just one day, followed by Palayamkottai, Nagapattinam, Vedaranyam and Trivellore where 4 cm each was recorded. All districts except Dharmapuri, Salem and Tiruchirapalli have received copious rains to the point where the Mettur reservoir was closed because of the heavy rains over the delta. Further the Periyar, Vaigai and Tamaraparani — Khadayar systems were the major beneficiaries. The storage in the city reservoirs also increased, the total reaching 3857 million cubic feet (mcft) against the total capacity of 6483 mcft — with two of the reservoirs — Red Hills and Sholavaram being near full. For the past 3 months the state received 45 cm of rain against the normal 47 cm. North central districts are in the deficient category. This means that both the irrigation and drinking water situation for this year is in a good position. On the price situation in the state there is the same wide gap between the official record on inflation and the empirical evidence as known and experienced by the people. CSO's June 1990 issue states that the index number of consumer prices for industrial workers rose by just 1 point to 177 in March 1990, the index of consumer prices for agricultural workers records a rise of 5 points (around 0.8 per cent) in March but a sharp increase in April by 12 points (1.8 per cent) to 731 due to the even higher rise in food prices by 18 points (2.4 per cent), while the consumer price index for urban non manual workers records relative stability (rising by 3 points in Madurai, by 2 points in Madras, Salem, and Tiruchirapalli and 1 point in Coimbatore.) The empirical evidence, however, is that in Coimbatore food prices, particularly vegetable and fruit prices were sky rocketing, going up from a two fold to five fold increase. This is contrary to the index reported for urban non manual employees.

Power

The power situation in the state was normal with further easing of the problem of meeting the peak load demand because of the storage position of the hydel reservoirs and the improved supply of coal to the power plants. As a consequence towards the months' end, the cut on HT users was reduced from 30 to 20 per cent on demand and 30 to 10 per cent on energy. Attention is therefore being turned to the long term power needs of the state, particulary on the Eighth Plan instruments needed, in which there is likely to be a shortfall because of the overall resource scarcity faced by the country and also the state. This is somewhat acerbated by the increasing subsidisation of the power supply to the agricultural sector, which is largely based on non technical considerations.

In the country, the power situation in December was normal except in Andhra Pradesh which expects a cut on HT users in the New Year, allowing some more considerations to long term factors. The major such factor is the energy shortage facing the country caused more by wastage of energy plus the result of the gulf crisis. By 2004—2005, 450 million tonnes of coal, 94 million tonnes of oil and 919 billion units of electricity will be needed against the present 94 million tonnes of coal, 32 million tonnes of coal and 221 billion units of electricity ceiling for an investment of $220 billion over the next 5 years. For now 33,000 MW of additional power generation capacity is required during the VIII Plan against which only 23,000 MW additional capacity is being provided (if the estimated resources do not deteriorate further). This means a shortfall of 15,000 MW in peak power supply (21.5 per cent) and a shortfall of 15.8 billion unit in energy availability (41 per cent). While the shortfall in the peak load demand can be met by using certain available options to level the demand, requiring State Electricity Boards to impose basic discipline on industry, particularly HT consumers involving setting up on line control systems, the overall energy shortage is more worrying. This applies particularly to the southern region, where three types of corrective actions are being taken. One is to increase its power capacity, for which the 2420 MW super thermal power plant at a cost of Rs. 3000 crores is being set up in Kayamkulam and on which work has started in December 1990 and in which the first 2 units will be commissioned in 1995. A second possibility suggested is to connect the southern grid where the most serious shortage is faced to

the western grid. Here the use of gas for generation of surplus power in the western grid which can be transferred to the southern grid should be explored, even as the project for building gas pipelines to the South from the HBJ lines is being finalised and developed. (See Vol XIX pp353 and 600 and Vol XIX p503). A third way is the various measures for energy conservation including energy audit by every industry and establishment which have been set forth by the committee in question and for which it is reported that some Rs. 800 crores have been allocated in the VIII Plan period and in various non conventional energy resources which we are just bringing to use in a rather limited way. These latter include solar energy which has now moved out of the laboratory and is being commercialised, wind power which a 500 MW target has been set for the VIII Plan, bio mass programmes particularly gasification and liquid fuels production and use of energy sources now being thrown away like 323 million tonnes of agricultural residues, 1365 million tonnes of animal dung, 49 million tonnes of rice husk, bagasse, groundnut shells and 15 million tonnes of urban refuse and night soil.

Water

The major event in December is the suggestion made by Tribunal that Karnataka release 5 tmcft of Cauvery water to Tamil Nadu to meet the urgent needs of the Delta farmers. The first reaction of the government of Karnataka was to refuse this suggestion of the tribunal on the grounds that there is not enough storage in its reservoirs. Later, Karnataka has expressed its willingness to release the 5 tmc of water provided a) Tamil Nadu does not press for either the injunction against the ongoing state projects in the Cauvery basin and / or its demands for 33 tmcft of water to meet the emergency requirements of the delta region, and b) it (Karnataka) be compensated by Tamil Nadu supplying power because the release of the lumpsum flow will affect Karnataka's power generation. The Tamil Nadu government has expressed its inability to accept the first proviso. Following the earlier reference to the December rainfall, the immediate results are a) 1260 non system irrigation tanks of the total of about 6500 tanks in the state are full, 1883 tanks have 3 months supply, 1013 tanks have 2 months supply and 1274 have 1 month supply, which enable farmers to plan their farming activities accordingly, b) while Mettur was closed because of the good rains in the delta, 2000 cusecs were released to help the standing crops in Tiruchi district and c) Madras city is now assured daily water as the 3 reservoirs having the second highest storage of 3850 tmcft at the end of the year. The Telugu Ganga project which is to meet the long term drinking water needs of Madras city is now expected to be completed later than the original 1993 date, by January 1994. As of early December AP government had completed 40 per cent of its project work. Finally in view of the fact, according to the TN standing irrigation and water resources commission, that 85 per cent of the state's water potential has been fully utilised, two decisions need to be noted and acted upon. First, 5000 percolation ponds are to be constructed in addition to the 17.49 irrigation wells serving 43.17 hectares. The problem posed by the wells is the over extraction of groundwater along with reduced natural recharge of the acquifers could in part be met by this scheme of developing percolation ponds as a vital component of watershed management. Second, an empirical study of the hydrological data coupled with hydro meteorological data and forecasts which will make possible the control of our water resources bringing together catchments' irrigation systems and volume and velocity of water use.

Transport

The movement of goods on the Madras-Ennore section which is now reaching its limit, will be facilitated when the third line now being surveyed is completed so that it will be available in two years time, in 1993 when the North Madras thermal plant is to go on stream. The line will move the 4 takes of coal per day between Madras port and Athipattu transport by bus for passengers. In light of the recent experience, it is wise that the Transport Corporation are planning to concentrate the reduction of services (in order to save crude-diesel consumption) on one day in the week (Sunday), instead of spreading it out to all days.

Urban Development

The infrastructural services in the major cities and towns of the state are being strengthened with the help of the World Bank loan of Rs. 632 crores. Now what is needed is the early acquiring of the land for the 20,000 house sites under the sites and services programme, which will be financed with a third of the above sum. About 8 per cent of the loan is being used on improvement of 94,000 slum units. These are parts of the approved national housing applicable to the state.

Rural Development

With the assistance of the national cooperation and as part of its integrated cooperative development project, the Kamarajar district is location of the programme in the state, where its planning and execution are done at the Kamarajar district level which receives a special subsidy for some part of it and 100 per cent financing for other parts of the programme — all of which aim at an integrated approach to the development programmes. The programme is being extended this year to 4 more districts — South Arcot, Tiruvannamalai—Sambavarayan, Coimbatore and Pudukottai. The problem raised by this and other projects of this kind is the feature of integration on which all of them insist — which involves bringing together the work of several departments and disciplines in the area. This concept of irrigation is sound in theory and is essential for any real development, but apart from the over worked district collector, there is no local infrastructure to bring the departments develop them into a coherent programme and monitor its execution. This problem applies to health, nutrition, coastal areas, hill areas and other development approaches. A second event in the rural area is the decision of the government to extend the deadline of December 15 by which the cultivating tenant was to avail himself of the relief provided under the Tamil Nadu Cultivating Tenants Arrears of Rent Act 1990. So far only a few tenants have exercised this option and so two more months time have been given — upto February 15, 1990 to enable all eligible tenants to avail themselves of this relief. This ordinance extending the dealine by 2 months is based on the assumption that the reason why only a few tenants have applied for the relief is because of lack of information on it. This is surprising because information on reliefs like these spread like wild fire in the rural areas. It may be necessary to enquire into

the causes for the non exercise of the option by tenants, if the same situation is faced on at February 15, 1990.

National

Plan

December was a month when nothing could be done on the Eighth Plan and even the finalisation of the Annual Plan of the states and the union ministers for 1991-92. First, the Planning Commission has had to be reconstituted and this process would not be completed till near the end of the month. Second, there was the question of the Plan priorities of the new government and its interpretation of the Approach Paper of which it was cognisant and was involved in its approval. The Approach Paper is authoritative as it has been approved by the National Development Council but even so the new government wants its seal on the plan projects. Here these two questions, the change of the composition of the commission and change in effect of the content of the Plan every time the government changes need to be faced by the country, people and their representatives in Parliament. The constitution or legislation does not require these two changes of members and programmes. It has been fortunately developed since 1977 when after 4 five year Plan, the party which had been in power was replaced and new party was voted in. Since then there has been this double change-of the commission membership and the plan programme every time the government changes—which has happened now thrice in less than a decade and a half. There is need for a firm convention to be established that the Planning Commission and its members are and the Plan document are insulated from political changes. If and when a new government is voted in, it must carry out the approved programme unless as in the case of the VII Plan whose formulation and start coincided with the new government. As for the members, they should be changed only when their term of appointment expires. Till then they should not be changed. This is the only way in which the development of the country can be safeguarded and protected. Now all development activity has come to a standstill and will be so for another 6 months when the Eighth Plan will be finalised—if there is not another change in government. The most serious problem facing the commission and the government is the size of the plan. With inflation raging, the budget deficit now pointing to double of what was budgeted with the Balance of Payments and foreign debt and its servicing running away, the level of the Plan and the resources to be raised become basic questions. The gulf crisis has added to these uncertainties. The Annual Plans for 1990-91 of the state and the Union show that the growth will be less than 5 per cent—that by itself is not important, but the uncertainties in programme priorities which have resulted in this slippage are important. The Planning Commission on the basis of a 3 member sub committee has recommended to the government that the Plan size be maintained at Rs. 3,35,000 crores. This is now likely to be accepted by the government.

Prices

The rate of inflation in November on a point to point basis rose by 1.2 points (0.7 per cent), the wholesale index standing at 184.91 for the week ended

December 1, 1990. As has been happening the major rise in the last week was due to primary article prices which rose by 0.6 per cent and in primary articles, food articles rose by 0.7 per cent, with cereals rising by 0.4 per cent, fruits by 2.8 per cent, milk by 1.7 per cent, vegetables by 0.9 per cent and eggs, meat, fish and spices rising by 0.8 per cent. The annual rates of inflation has now passed the double digit figure which was the danger point and was hoped would not be crossed, being 10.6 per cent. What is also disturbing is that this rise is recorded during the time when there was marked deceleration in the expansion of aggregate monetary resources (between April and June 1990) which means that the inflationary pressure is coming from the supply side of goods/services being limited in supply. The decline in money supply was largely caused by a decline in deposit expansion. Further, this inflationary pressure is taking place at a time of plentiful monsoon signalling another year of bumper crops. One commodity whose price shot up by over 60 per cent, is edible oils which in December usually sees a fall in prices because of kharif arrivals. In part this is due to edible oil prices being price inelastic so that even a small shortfall in supply pushes up prices as it did in 1988-89 when there was a shortage of 5 lakh tonnes. This year the shortfall is feared to be over 10 lakh tonnes and there is no possibility of any import relief because of shortage of foreign exchange. Will a loan free IMF ease this and other price rise factors ?

Budget and Stock Exchange

In December the fiscal balance in the economy worsened seriously. First the Budget deficit for 1990-91 which had been established in May when the budget was approved at Rs. 7200 crores was reported by the government to to have near doubled to Rs. 14000 crores. The government points out that the budget deficit which is only a partial measure of fiscal imbalance fluctuated around 2 per cent of GDP with the revenue dificit being 2.2 per cent of in 1985-86 rising to 2.8 per cent in 1989-90. The fiscal deficit of the union government which is the difference between total revenue and total expenditure was much larger raising from 3.2 per cent of GDP in 1974-75 to 6.1 per cent in 1980-81 to 8 per cent in the VII Plan. The second imbalance reported in December was that the trade deficit and was similarly much larger (by over 50 per cent) of what was forecast in April with consequences on the negative level of the Balance of Payment—which will be analysed in some detail later in the foreign trade section. A third fiscal imbalance is the mounting foreign debt and the serious difficulty in servicing it-all of which are leading to the government negotiating a large loan from the IMF—which will also be referred to later in the loans and aid section. Against these imbalances the government has taken two actions—both rather late in the day. The first is the first decision to raise additional excise and auxiliary customs duties which in a full year will yield Rs. 1340 crores, involving a total additional revenue of Rs. 2175 crores. So the December levies will raise a total of Rs. 2173 crores this year from customs and auxiliary customs duties (Rs. 835 crores were raised in the budget). This was a start to raise the resources needed to keep the deficit down but is no more than a start. For even with other revenue raising measures such as the Gulf surcharge on corporate incomes, the hike in

petroleum products and other administered prices and the other ARM of the 1990-91 budget, there is still a large resource gap to be filled. So in a second round, Parliament approval was obtained for revising the surcharge on income tax of incomes above Rs. 75,000 from 8 to 12 per cent which will yield Rs. 60 crores this year and the deduction for depreciation for the current year was restricted to 75 per cent of what was allowed, yielding Rs. 750 crores—a total of Rs. 810 crores. Also the government has announced that the gulf surcharge of 25 per cent on petroleum products is to be continued next year, though the parliamentary affairs minister says that the surcharge will be reviewed and the Prime Minister says that it will be reduced only if the crude oil price is reduced. All this shows lack of clarity on this point of the government. Taking the VP Singh government's additional levies of the 25 per cent gulf surcharge and the increased 7 per cent corporate tax surcharge and the import and excise as well as and the present tax increases, the 1990-91 yield will be Rs. 3900 crores. The present levies will yield Rs. 2500 crores in a full year and Rs. 1600 crores this year. This should have been the first source to be tapped, with a special effort to get at the huge volume of black money and wealth circulating in the economy. In this direct taxes area, agricultural incomes above the ceiling level should be taxed (on the basis of an inter-state council agreement) and incomes of self employed professionals and traders more carefully assessed and fully taxed. Not only is this source of direct taxation both revenue raising and more equitable, it is one way of preventing inflation. Infact the additional levies through customs will raise the cost of our inputs and so push up prices. The other issue is the rather slow and inadequate start of belt tightening that has been undertaken in the areas of the austerity measures needed and set forth in the last issue of the bulletin. In early December the government announcement of austerity measures sounds not only inadequate but like a cruel joke. The measures include a) a ban on purchase of vehicles till March 31, 1991, b) a 10 per cent cut on telephones and electricity, c) discontinuance of all official entertainments, d) enforcing the 20 per cent cut in consumption of diesel and petrol. All these cosmetic changes do not touch the heart of what needs to be done in cutting down government expenditure — namely cutting the 48 per cent revenue expenditure on subsidies and defence. The move to cut the fertiliser subsidy which has jumped from Rs. 375 crores to Rs. 4600 crores in the last 10 years by hiking fertiliser prices by 10 per cent which will fall on the large farmers is only a start because what is needed is a programme of action to reduce fertiliser subsidy altogether. This is more so because the foodgrains subsidy which is now Rs. 2200 crores is threatening to go up to Rs. 8000 crores if the new norms for determination of procurement prices is implemented by the government. One thing urgently needed is to hold back any decision in implementing of the new price determination norms as it will spell disaster for the budget and the economy. On defence, at least a reduction of 10 per cent particularly of the costly and over estimated foreign purchase can be affected without detriment to the country's security. The government proposed to the winter session of Parliament a supplementary budget of Rs. 648.92 crores to cover Rs. 300 crores as CSS for exports, Rs. 150 for S A I L, Rs. 100 crores for internal security and DAs, On the stock market front, 1990 was a good year continuing the record growth of the 80s when market capitalisation rose from $ 7.5 billion in 1980 to $23 billion in 1990, from 4.4 per cent of GDP to 8.5 per cent, becoming the third largest stock market in the world in terms of the number of share holders and increasing its share of gross capital formation from 8 per cent to 15 per cent — according to the World Banks International Finance Corporation. The amount of equity raised was only Rs. 90 crores in 1980, increasing to Rs. 878 crores in 1987. There are problems of insufficient liquidity in the market and the need for a more integrated approach to financial sector development, resource mobilisation and the promotion of investment and economic growth is stressed. In December, the meeting of presidents of stock exchanges has asked for comprehensive reform of stock market operations, starting with the need for changes in the listing agreement. This means that the stock market board must ensure orderly trading in the market, not condoning aberrations in trading as at present. The stock exchange board need to be vested with real authority provided they are professionalised with outside professionals more than brokers. For this, government intervention is needed. Will it be available in the present economic and political climate? The stock market is ending the year on a rather sober note, more given the escalating gulf crisis, rising inflation, acute balance of payment situation, shortage of commodities, fresh close of taxation, recession in international markets, dwindling exports and empty foreign exchange reserve.

The Economy

The economy at this point of time, December 1990 presents some long term facets as well as some immediate short term problems. First, the long term issues. In a recent review of the economy for the Asian Development Bank the need is emphasised for curtailing the budgetary deficit of government and its financing through internal and external borrowing, which calls for reducing governments revenue expenditures, for making planning an opening economy framework rather than for import substitution as at present ; for an intergrated approach for trade, industrial and fiscal policy formulations instead of being formulated independently of each other ; for producing low cost steel as a basis for expanding exports of metal based and engineering industries and which are more employment intensive, in line with the country's comparative competitive advantage, which also to an extent will redress the economy's regional imbalances which have remained unchanged over the 7 plan period ; for paying attention to the promotion and diffusion of information technology which along with material science and bio-technology and micro electronics are at the heart of the ongoing technological revolution ; for the concentration of the largest possible share of the available investible resources both in the public and private sector on efficient capacity expansion in the intermediate goods and services sector. In this analysis the emphasis on planning for an open economy and intermediate goods and services do not go alongwith the urgent need for concentrating on employment generating, basic needs meeting wage goods. With regard to the regional disparities referred to, there is the problem of quantification of the objective balanced regional development. Per capita income can be used which shows that against the all India level when the per capita income has increased from Rs. 300 in 1960-61 to Rs. 2907

in 1987-88, with Punjab (Rs. 5477 per capita), Maharashtra (Rs. 4400), Haryana (Rs. 39295) at the higher range and Bihar (Rs. 1904), Orissa (Rs. 1933) and West Bengal (Rs. 2193) at the low end, is not quite satisfactory as it is expressed in current prices and is dependent on infrastructural dependent population expansion and does not really measure the quality of life of the people — the access to wage goods, IMR, literacy, drinking water access. On this, the Operation Research Group findings released in December is that with Rs. 6500 as the poverty cut off line which gives Rs. 9000 as annual household incomes, (even not taking into account the inflation factor), 40 per cent of the households are below the poverty line, with 61 per cent in rural households and 27.5 per cent among them being the poorest of the poor — which are also the finding of the World Bank study on Indian Poverty (See Vol XX pp 408 & 409). In this connection, the disturbing government report should be noted that 8 states — Gujarat, Haryana, Karnataka, Kerala, MP, Maharashtra, Orissa, Rajasthan, UP are performing poorly in their poverty alleviation programmes (JRY & IRDP) releasing only 20—30 per cent of the available funds. This needs urgent action and attention. Another disturbing development is the deceleration of capital formation in the agricultural sector (according to a CACP report) from Rs. 4598 crores per annum during the triennium ending 1982-83 to Rs. 4100 crores in real terms during the triennium ending 1983-84. Is this due to, as claimed by some, to the agricultural price policy and the widening gap between urban and rural incomes caused by the insufficient increases in administered prices of agricultural commodities. It is more likely that the lower output jointly with lower increase in farm prices which have depressed farm incomes have reduced capital formation. There is also the problem of high commodity price depressing demand of those with lower real incomes. In this connection the short sighted lower procurement price for rice is likely to result in a loss of Rs. 100 crores to the government in Punjab alone — involving FCI and the government agencies buying 60 per cent of paddy arrivals instead of the normal 20 per cent. This kind of costly error could have been avoided at a time of resource shortage. Turning to the short term factors (which also have long term overtones), a ministry of finance sponsored study on black income reports that the real estate sector in urban areas, in cities, is its major generator and launderer of black money — of the order of Rs. 40,000. The next three areas of generating black money are large scale manufacturing, film industry and smuggling. Finally the current overview of the economy shows strong inflationary trends despite the lower growth of monetary resources including deposits, the high production of agricultural commodities — foodgrains and oil seeds ; the decline in foreign exchange reserve, the steep increase in the trade deficit — all referred to earlier ; the rising trend in capital issues, with equity issues topping the list ; the emergence of mutual funds with effects on secondary and primary markets ; and a decline in the sanction and disbursements by the financial institutions which will affect the year's economic and industrial growth.

Industry

CSO's industrial production at 199.2 for September 1990 means that the growth rate for September 1990 was 8.7 per cent higher than for September 1989. The average index for April-

September 1990 is 200.6 which is a high 11.7 per cent in comparison to the six months of 1989 ; for April-August 1990 it was high at 12.4 per cent (manufacturing 14.2 per cent). But this record may not be sustained for the 3rd quarter as the core infrastructure sector has fallen by 3.5 per cent for October, crude by 11 per cent, coal by 10 per cent, cement declining to 2.3 per cent, electricity declining by 2.2 per cent and saleable steel by 3.9 per cent. As the infrastructural industries supplement the industrial activity of the rest of the economy, this slowdown in infrastructure will effect the entire economy. Even the engineering industry expect a slow down in growth over the last quarter of the year and the first quarter of 1991-92 due to a fall in capacity utilisation, the sharp increase in input costs, inadequate availability of raw materials and financial difficulties. Even when the growth rate is impressive as with electronics industry (averaging over 30 per cent in the 80s), the growth has been unbalanced, with consumer electronics accounting for a large part of the growth. Further with the change from a seller's to a buyer's market, increases in agricultural prices leading to reduced demand as noted earlier, new technology, changing public tastes, failure to modernise plant and machinery, prolonged labour unrest, non availability of raw materials and poor and in some case deceitful managements have led to increasing sickness in industry — both large and medium and small. It is in this context that the proposal for privatisation particularly in the case of sick public sector units is being seriously urged both internally and by the World Bank. The number of units closing down has been on the increase, there should be more take overs, mergers and sales on which BIFR is not yet playing its full part. Here the setting up of a "turn around" fund exclusively for equity participation in sick companies by ICICI is a much needed move in the right direction. Further the RBI's advise to commercial banks to extend financial concessions beyond prescribed norms, if necessary as a means of reviving sick units is also a pointer in the right direction. Here one of the most worrisome recent development is the sickness reported in Banks. UCO Banks balance sheet for 1990 published 8 months later in December shows for the first time that the bank's bottom line is red-recording a large loss of Rs. 5 crores. Last year's report by the auditors with its 16 points qualification showed the serious situation facing the bank. What were the representatives of ministry of finance and RBI who are on the board of management doing all this time? Will the Rs. 250 crore provided by the government to increase its capital help? It will not, because what is needed is hard cash, not securities, and this the bank through its turn around must find. The CMIE survey of the investment of Rs. 314 crores by 2200 projects large and medium in its document-Shape of Things to Come, is an impressive record of the industrial performance of both private and public sector units. The weakness of the survey arises from its terms of reference in being limited to manufactures. It needs to be extended to include agricultural investments. Finally organised industry is now learning to live with the political instability characterising the major part of 1990-91. While this collective will to face the instability and achieve certain minimum goals is good, what is needed for industry and economy is for a minimum of political and economic stability to be ensured as rapidly as possible.

Public Sector units

The first quarter performance of the public sector units is officially stated to be very poor — their loss making units making heavier losses and profit making units recording a fall in their profits. In this background, the usual report of a 5.5 per cent increase in production in October of the 33 enterprises under the Department of heavy Industries becomes a meaningless, routine statement. This also strengthens the demand for privatisation of the public sector or most of it, as noted earlier.

In particular two key units — Hindustan Shipyard and HMT are now under criticism, with the demand that as they are now making losses and are becoming sick they be privatised. There are available and correctable problems — such as unreal prices, over manning, sloth and political interference. Further in the case of HMT, a committee two years ago pointed out that its lead role was being diluted by its getting into the consumer product area. All these can and should be corrected because the alternative of privatising them will not only weaken the economy, we cannot afford the cost of privatisation, when the private sector demands everything — writing of all losses, slashing of the labour force, and large and cheap institutional finances The public sector can be made viable but for this government and Parliament must be willing to accept the social and economic burden and consequences. The decision of the cabinet committee on prices to strengthen PDS, for instance, is a move in the right direction.

National Production Front

SAIL

Short term programmes and problems of SAIL contradict its long term investment plan, which itself keeps changing. While on the one hand its April-October 1990 record is poor both in terms of production of steel ingots at 60.39 lakh tonnes against the target of 71.45 lakh tonnes and its production of saleable steel at 49.87 lakh tonnes against the target of 57.31 lakh tonnes and even its pig iron output at 5.28 lakh tonnes against the target of 5.43 lakh tonnes, it comes out with an Eighth Plan programme for investment of Rs. 10,000 crores for modernisation and technology upgradation of its plans, giving top priority to the modernisation of IISCO followed by strengthening Bokaro in continuous casting facilities. The most curious aspect of the plan is the SAIL statement that funds needs will be internally generated. How this will be done when SAIL has suffered losses in the first 6 months of the year and is likely to meet the same negative situation for the year as a whole is not clear. There are other facets of SAIL's functioning which need scrutiny such as the deal with the same Australian Company whose tender for coal was rejected being now awarded the contract, the slippage in the implementation of the 4 packages of the Rs. 2668 crore modernisation of Durgapur steel — all of which must be set against the claim that it attained 85 per cent of the target of raw steel production as at the end of November 1990.

Crude

The crude output, like that of steel, is declining as noted earlier at a time when it should atleast maintain its level in order not to make a call on non existent foreign exchange resources. What we have are only plans and programmes and not actual output. ONGC reports that it has worked out schemes to increase Bombay High crude output by 56.55 million tonnes and gas by 26.84 billion cubic meters by 2000 AD. But what is needed is now, today, to offset the loss of supply and rise in prices of crude as a result of the Gulf shut off. Similarly World Bank approval, it is reported, is expected shortly (how shortly) for the $2 billion scheme to totally eliminate the wasteful flaring of gas on all onshore and offshore structure of ONGC, saving Rs. 3000 crores on the 12 million cubic feet of flared gas per day. This again should have been planned atleast 4 years ago and is now being negotiated, which process, cannot be hurried. Another important programme which will also take sometime to mature is the joint investigation by India and Soviet scientists to develop better catalysts which will make possible use of gas, coal, and other organic materials and cut down the use of petroleum. But this again will not be able to meet the current pressure.

Coal

The sharp decline in coal supply noted earlier now is not due to floods and rains which have passed. Here it is the outdated machinery in underground mines at low labour productivity in both open cast and underground mines which account for the decline. These are manmade limitation which need to be urgently set right, as the adequate supply of coal is needed not only to keep industry and thermal stations going but to substitute for scarce crude and crude products, as noted earlier. The good record of lignite production at NLC exceeding its target by 4 and 13.2 per cent in October-November do not compensate for the low coal production because of its tiny size.

Agricultural Production

Kharif harvesting is complete and the arrivals in the market are now also nearing completion. Here the procurement policy and prices for the Kharif crop needs careful review as noted earlier both to avoid waste of resources and guide next year's policy. Rabi sowing is under way and a good rabi crop is expected because of persistent moisture. If to this, there are also some late winter rains, the rabi harvest will exceed last year's 57 million tonnes. Rice procurement at September was 4.86 million tonnes, wheat 1187 million tonnes, so that the buffer was 17.70 million tonnes in October 1990 compared to 13 million tonnes in October 1989.

Foreign Trade and Balance of Payments

The trade deficit is worsening. In April-October 1990 it rose by a high 41 per cent at Rs. 5334.30 crores compared to April October 1989 when it was already a high Rs. 3793 crores. The trade deficit for the year may reach Rs. 13000 crores. Equally disturbing is that exports growth rate during the period at 21.1 per cent was lower than the growth rate of imports at 25.1 per cent at Rs. 23060 crores. In October 1990 alone exports rose to Rs. 2620.69 crores which was 18.9 per cent while imports during the month shot up by 34.4 cent. The government wants a 28 per cent export growth to attain a 5 per cent GDP growth in the year in order to peg the trade deficit at Rs. 12000 crores. Against this, actual exports growth was only 21 per cent. There is need for a serious scrutiny of imports and cutting back on its increase. Suggestions have been made by the commerce ministry for

cutting back imports by 15 per cent, RBI has asked not to make advances against capital goods imports. What is needed is a detailed item by item examination of the major import items — besides crude and machinery and equipment to fix the reduction by individual items and for that to be executed rapidly. This will involve some reduction in production but that will be the production of goods for elite consumption. The commerce ministry in its latest decision in December has decided to fix a ceiling of 30 per cent for import intensity goods to be produced and exported to the rupee payment countries. Such a ceiling needs to be imposed on all exports, may be at varying levels. The analysis of the 1989-90 import bill of Rs. 35,411 crores has some important lessons for the current year and next year's import policy. 70 per cent of the imports were due to petroleum product, pearls, precious and semi precious stones, machinery, iron and steel, transport equipment, organic chemicals, non ferrous metals, sugar and manufactured fertilisers. Heavy cuts can be made in imports of pearls, precious and semi precious stones, machinery and fertilisers and imports of sugar, iron and steel and project goods can be completely eliminated. This is the time when there is general realisation of the crisis facing the country to make these changes. On the export side, the export-import Bank has established a list of 48 products which have a good export potential. The goods which are not being exported in considerable volume and which fall in this exportable category which should be pushed are toys, sports goods, umbrellas, consumer goods, data processing equipment, colour TV, apparel and pharmaceutical products which have a good market in the industrial countries. On individual items, handloom exports are expanding and will increase by 20 per cent, aluminium exports are likely to fall and which should be countered by advance action. Garment exports at Rs. 4000 crores in December exceeded its year's target of Rs. 3900 crores and is a case of a thrust area doing well. On the other hand silk exports declined by over 40 per cent in the first 6 months of the current year, though its net earnings were high due to the rise in unit export prices by 30 per cent. It is proposed to increase agriculture exports to $8 billion by the end of the VII Plan.

Loans, Aid and India's Debt

The foreign resources scene is somewhat murky. As at the start of December, the foreign exchange reserve of Rs. 3000 crores was not adequate to cover 3 months imports. A UN committee on the effect of the gulf crisis has recommended immediate technical, financial and material aid to India. Short term borrowing in the international market during the first 9 months of the year has fallen sharply to $400 million from $1.5 to 2 billion during that period in 1989-90. The year's target is $4 billion which will certainly not be reached beyond 25 per cent of that amount as maximum. If this is due to the poor credit rating of the country, it is serious in relation to the foreign exchange needed by the economy during the year. Another messy element is the poor and tardy use of foreign borrowing to the point where the World Bank whose loans for irrigation, roads, and the social sector have been lying nearly unused for 5 years has informed the government that it will cancel all these projects amounting to over $1.5 billion in loan. It is to be regretted that this kind of situation should have been allowed to develop and against the warnings of cancellation by the World Bank and loans by Asian Development Bank which also faces similar delays, is taking urgent action to see that the funds loans are utilised. This means that the state projects not getting matching funds must be avoided by executive action on land acquisition, leaving the problem of the delayed supply or foreign equipment and components to be supplied on a priority basis by indigenous capital goods producers like HEL and BHEL. EC is giving India a grant of $30 million for its forestry and irrigation projects in the Himalayan region. Japan is granting a loan of Rs. 650 crores for power development in UP. On the fresh loans, ADB is making a loan of $110 million for 2 thermal plants in AP and Tamil Nadu. There is also the offer of the World Bank and ADB to lend $500 million for the power sector through the Power Finance Corporation. Also World Bank and IDA will lend $112.8 million towards Tamil Nadu's Rs. 310 crores agricultural development project. The World Bank announced in December a loan of $200 million for the second national highway that will cover 6 states. The government is also negotiating with IMF for a large loan between $1 to $4 billion to meet the BOP and foreign exchange crisis. In this connection India is also negotiating a 1 year loan of $500 million from Saudi Arabia to meet the country's foreign exchange need. According to World Bank debt table for 1990-91, India's external debt is $62.5 billion in 1980). The total debt service in 1989 was $6.36 billion (against $1.37 billion in 1980 net resources flow of $4.55 billion ($757 million in 1988) and net transfer of $1.59 billion ($565 million in 1980). Ofcourse the steep fall of the exchange value of the rupee inflates India's debt in rupee terms. Although India borrowed only Rs. 2288 crores ($1350 million) during 1989, the value of the total debt against the depreciated rupee in dollar terms was Rs 23,000 crores. India's external debt which stand at $ 68354 million according to OECD on December 31, 1998 works out to Rs. 1,02,592 crores, going upto Rs. 1,18,177 crores and at today's exchange rate of Rs. 18 to the dollar, it has gone up to over Rs. 1,25,000 crores. This means that external debt increased from 12.5 per cent of GDP in March 1980 to 17.8 per cent of GDP in March 1989 and to 18.37 per cent in 1990. Is it possible to repair this damage caused by the depreciating rupee?

International

Uruguay Round

The world trade negotiations - called the Uruguay round - has collapsed. Its collapse is an indication that the industrial world does not believe that trade liberalisation will be in their interest. Behind this fundamental fact there are several factors: 1) the emergence of a United Germany: 2) the European community of 1992: 3) the changes in the Soviets, China and East Europe: 4) the fear that free trade or trade liberalisation will benefit only the newly industrialised countries which are seen to pose a major threat to the market of the industrial countries. For instance, the World Bank estimates that the major beneficiary of trade liberalisation will be South Korea whose exports will be boosted by 21.6 per cent: 5) there is the realisation that trade liberalisation is not the means of increasing the exports of the industrial countries: 6) it is not simply

that the European community was unwilling to give up its agricultural subsidies. The United States agriculture is the most heavily subsidised in the world and they are unwilling to give up their subsidies: 7) the industrial countries are increasingly conscious of the need to protect their market. OECD reports that its 25 rich member states are throttling international trade through import quotas, voluntary exports and restraint agreements, safeguard measures, variable import duties and anti-dumping laws. In the US and other Western economies 500 of the biggest firms have a turnover of $4.6 trillion (which is near the $5 trillion of US (GDP). These TNCs and 500 top banks whose turnover is equally large want their home markets to be protected: 8) Uruguay Round's greatest failure was its denunciation by US which have displayed the strongest pressures towards protectionism. The countries with the greatest stakes in trade liberalisation are economically weak like India or small like Africa and Latin America. Hence what is emerging are 4 major trading blocks—North America, EC, Asia — Pacific which account for half of the $1.5 trillion of the world trade. Trade liberalisation will be the lowering of trade barriers between the countries in each block and dealing with other countries through bilateral negotiations. This is embodied in the US World Trade Act but it is at the heart of every industrial country's foreign trade policy. The World Bank has said that the failure of the Uruguay round will hit hardest the poor countries particularly for India. But that is of no international concern. There is a meeting of GATT members of the Uruguay round called at Geneva on January 15 but this will produce nothing, as the industrial world which calls the tune does not want trade liberalisation.

World Economy

The UN survey reports a lowering of the world economy in 1990 with per capita output falling for the first time since 1982 and overall global output increasing by 1 per cent against the 4 per cent growth in 1988 and 3 per cent in 1989. While Asian economies recorded high growth, the economies of North America, Africa and Europe remained stagnant, the economy of Latin America declining and that of the Soviet Union and Eastern being in disarray. This slow down was not the result of the Gulf crisis, which occured in the second half of the year, but due to the slow recession in major industrial countries, the transition in Eastern Europe and the stabilisation effort in Latin America. World trade, however, remained buoyant with exports increasing by 5.5 per cent in volume. The gulf crisis affected the world economy only marginally as the trade of Iraq and Kuwait under the UN embargo constituted only 1 per cent of world imports. In industrial economies the slow down signalled the end of an unusually long period of steady growth. The deceleration in developing countries was not related to the industrial world but due to the stabilisation policy of the countries. The deceleration was also sharp in US and Canada where output growth was 1 per cent, in Japan the growth rate raising from 4.9 per cent last year to 5.5 per cent this year and the growth rate being unchanged in Germany. Unemployment began to rise in US and Canada and inflation rose by 5 per cent in 1990 compared to 4.4 per cent and 3.2 per cent in the 2 previous years.

World Debt

The World Bank projects an all time high $1,341 billions in the external debt of developing countries in 1990, which is a 6 per cent increase over that of 1989. This is based on the Bank's world debt tables for 1990-91 which assumes that the gulf crisis will not result in a rise in oil prices beyond $25 a barrel. This is bad news, despite what the Bank says, because it vaults over the net transfer of $50 billion in just one year, 1988, from the third world to the industrial countries. The Baker and Brady plans have brought little relief to the indebted countries, that jacked up interest rates has meant that more than 50 per cent of annual debt servicing is made up of interest payments and not that of the previous year. The US estimates the third world debt at a higher $1.9 trillion this year up from last year $1.51 trillion and $780 billion in 1984. The development strategy for 1991-2000 adopted by UN General Assembly calls for finding innovative solutions to get development in these countries quickly moving again. The policies proposed for the countries is a review of their tax policy, regulations and accounting practices to make it easier for indebted countries to reduce their debts. The indebted countries should be more efficient and adopt economic measures which return them to their growth path. There is little that is innovative in this advise. Innovative action is needed to scale down the debts.

World Aid

OECD's DAC in its just published report states that the aggregate resource flows to developing countries from bilateral and multilateral sources was $ 110 billion in 1989, a rise of 3 per cent from $109.9 billion in 1988. Most of the increased aid was in the form of private flows and export credits — which is no aid — the private flows being $ 40 billion and official flows $67 billion ODA and multilateral flows were $68 billion (+4 per cent). Net disbursement of ODA from the DAC countries declined by 1.6 per cent, from $ 48.1 billion in 1988 to $46.7 billion in 1989. ODA as a share of GNP of the DAC countries declined from 0.36 per cent in 1988 to 0.33 per cent in 1989 (the target being over double that at 0.7 per cent). Only Norway, Sweden, Denmark and Holland stand out as the highest donor (Norway was 1.64 per cent) whereas for US it was 0.45 per cent. This record shows that even by including all sorts of item in aid, the reource flow to developing countries is both on the decline and on hard terms.

IMF

In its report on capital flight, IMF calls for sustained reduction of fiscal deficit to reduce the risks of holding growing domestic debt. Large fiscal deficit financed with non indexed domestic debts will create the expectation of an inflation tax and devaluation possibility which will hold up development. Fixed exchange rates coupled with wage priority and price rigidities and inefficient tax systems suggest the urgent need for tax reform and sound macro economic policies to stem capital flight. In all this impressive sounding advise, there is no reference to the demands of development and of the poor majority in the countries. In a latter report from its Bureau of Statistics and Exchange and Trade Relations it calls attention to the

slowing down of international banking activity in the first 2 quarters of 1990, particularly 923 billion dollar net decline in claims on developing countries along with a rise in inter — bank liabilities by 27 billion dollars. These trends reflect a slow down of international banking activity in European countries, partly offset by a rebound of international banking activity in the US. The effect of these movements on developing countries is yet to be analysed.

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II. Agricultural Development in Tamil Nadu

Paddy and other crops

Farmers are slowly recovering from the unsatisfactory south west monsoon; the first crop of kuruvai and sornawari raised by the farmers covered only about 1.9 lakh hectares instead of the normal 4 to 5 lakh hectares. Over the following samba season the farmer is trying to make up for his loss in kar cultivation but so far he has been able to cultivate only 15 lakh hectares by December this year and with the December rains, if there is adequate precipitation in January (as there was heavy rains at the end of December) the coverage may increase to 18 lakh hectares, so that in terms of paddy hectarage there will be a shortfall this year. It needs to be recalled that the farmers covered about 24 lakh hectares under the 3 crops of kuruvai and sornawari, samba and navarai but are likely to work on less than 20 lakh hectares this year. But as the farmer now learnt to use this limited paddy hectarage intensively, the total paddy production could still reach the target of 60 lakh tonnes. This short fall in paddy area is suffered by farmers in the districts of North Arcot, South Arcot, Salem, Dharmapuri, Periyar, Coimbatore, Pasumpon Thevar and Kamarajar. The two major spells at the beginning and the middle of the NE monsoon has benefited farmers in coastal districts. Farmers in the West and some central districts lack water for their cultivation; what they need is heavy rains towards the end of December and the beginning of January. Of the 6000 PWD irrigation tanks each having an ayacut of about 200 acres as noted earlier, only 1261 mainly in Chengai-Anna and Kattabomman districts became full and about 2000 tanks can help the farmer with his crop for a period ranging between 2 to 3 months. Farmers in Tirunelveli district are planning to increase their cultivation area during Pistanam crop and the Navarai in Chengai Anna-where farmers use lift irrigation for their paddy field. For the final stage of the paddy crop, farmers and government hopes are pinned on the interim order to the Cauvery water disputes Tribunal to which reference was made earlier. This limited water availability has also affected the farmers cultivating millets. In area, there is a shortfall of about 1 lakh hectares compared to last year and 2 lakh hectares compared to the normal extent. In pulses the shortfall is serious

3.68 lakh hectares against the 12 lakh hectares target, for cotton it is 1.23 lakh hectares against the target of 2.3 lakh hectares, for sugarcane 1.68 lakh hectares against 2 lakh hectares target. But these shortfalls unlike that of paddy can be covered in the remaining months. For next year and the following seven years, the Tamil Nadu farmer is looking to the World Bank aided Rs. 310 crore project which will make available more inputs and water to him and bring a larger area under cultivation.

Research results

Of the 32 Research reports recorded in December, 5 reports commend attention as they refer to important techniques for immediate use by the farmers on farm products. Two reports from the Agricultural College for Research Institute, Killikula and the Madras Christian College refer to rice and paddy growth, one for boosting the yield, two to three fold by the use of some of the many naturally occuring plant chemicals and hormones which can supplement the several native substances being used by paddy farmer; secondly to counter the sheath blight facing paddy farmers in the Cauvery and Tambaraparani areas, the 6 steps of burning the affected shrubs, deep ploughing and seed treatment and praying can be immediately adopted by them. Similarly a report from the TN Cooperative Sugar lab at Chingleput about the operation of the means of controlling and infact stamping out cane pest, the sugar cane hopper, by use of the tiny bugs from the North Indian cane fields which chock the sugar cane hopper can and should be spread for use by all sugarcane farmers here. A third group of reports from AP Agricultural University, TNAU, Tiruchi laboratory and Vridachalam centre on means of countering the castor pest tnrough the 3 steps of bio control developed by APAU, the spraying to be used to control leaf miner in groundnut demonstrated by TNAU Tiruchi and the improved curing techniques for turmeric development at Vridachalam are all ready to be transferred to the farmer now. Two reports on the results of developing hybrids — cotton at UAS, Dharwad and pigeon pea at ICRISAT are now ready for transfer to the appropriate farmers for field use. Finally 2 reports on control of animal ailments are also ready for application to the cattle stalls: the Izatnagar detailed prescription for controlling and eliminating fluorsis in dairy animals can be used by dairy farmers. Similarly the identification of the symptoms of the PPR viral infection in goats and its diagnosis and means of cure as developed by the Madras Veterinary College are needed by goat breeders over the state and should be made available to them.

Plantation Crops

There are certain commonalities that mark the 5 plantation crops—tea, coffee, rubber, cardamom and pepper. First all of them cater first to the large domestic market, except coffee which has certain regional characteristics. Second they are major foreign exchange earners accounting for 70-80 per cent of the export earnings of the agricultural sector. Occupying only 2 per cent of 177 million hectares of agricultural lands, it contributes 2 per cent of GDP. Third there is a very delicate supply — demand balance that each of them faces, with (except in the case of coffee), the production being inadequate to meet both domestic and export demand. Fourth they are research starved — with only 0.1 per cent of the funds on research

being spent on them and so face problem of pests, plant disease, drought for all of which there are technical solutions. Starting with *tea*, its output has been a high 700 million kg. in 1987-88, which is a 25 per cent increase. For 1990, 715 million kg output is expected over that of the previous year. Government tea policy has swung between insistence on meeting increased domestic consumption which leads to limits on exports (particularly when elections are near) and calls for making special efforts on exports as was done at the Calcutta meeting to meet the empty foreign exchange coffers of the government. Today tea exports are around 200 to 215 million kgs, leaving 450 million kg for domestic consumption. Even so exports will be 190 million tonnes in 1990 earning Rs. 950 crores. With this strong home support, tea exports are a secondary matter for the producers. This is further strengthened by the continuous rise in tea prices since March 1989 due to a) low level of the 1989 carry over b) decline in productivity in 1989, c) the increasing pressure of domestic demand and the higher levels of export during 1989 and f) lower level of production wrongly anticipated for 1989.

Turning next to *Coffee*, the Coffee Board estimates the 1990-91 coffee production at 1,75,000 tonnes against 1,19,000 tonnes in 1989-90, the total exports in 1989-90 at 1,32,320 tonnes valued at Rs. 136 crores; between April-September 1990-91, exports were lower at 53,191 tonnes valued at Rs. 149 crores. As noted in earlier issues of the Bulletin, the demand profile of coffee is just the reverse of tea. The home market is the weak link in the chain less than 30 per cent of the total production being sold at home. Why the huge population of over 800 million consume only 65,000 tonnes (and almost all of it in the South) is strange, with the IIM, Calcutta study hazarding the view that this is the result of the artificial manipulation of the market. The global coffee development following the collapse of ICO quotas has resulted in cut throat competition and falling coffee prices, which will be worsened when USSR join ICO, which will take away an important coffee market from India. Regarding *Rubber* there is little to be added to the analysis of it in the last issue of the Bulletin. Despite the annual 4 per cent rise in rubber production due to use of HYV planting materials and area expansion, demand has risen faster than production and so import of rubber has become a permanent feature of the scene, standing at 44,871 tonnes in 1989-90 and 27,626 tonnes in the first quarter of 1990-91. Prices are fluctuating, falling in the last quarter of 1990 and a policy on rubber prices awaits the study which has been completed of its cost of production. In regard to *Cardamom* production has been growing steadily and is estimated to reach 4300 tonnes in 1990-91 while its export is only 171 tonnes in 1989-90 with an increase of only 9 tonnes in the first half of 1990-91. The reason for this declining export volume is the success of the Spices Board in widening the domestic market to offset the Gautemala competition, with the result that today 4000 tonnes of cardamom are consumed at home. This is right for the first function of the plantation industry, as in all agriculture and industry, is to feed the domestic market and export only the surplus. Another spice *pepper* has suffered a set back because of the wilt disease and so output has declined to

52000 tonnes against the target of 65000 tonnes, though exports have picked up at 16320 tonnes during the first 6 months of 1990-91 (against 13,881 tonnes for all of 1989-90). A common problem suffered by the plantation industry is its technological lag, seen in the reaction of foreigners to the products - Indian cardamoms is regarded as inferior both in yield and quality to that of Gautemala: Indian coffee is rated lower than that of Brazil and Central America: the quality of Indian pepper has been critically commented on by US users. But quite apart from the foreign reaction to our plantation products, there is now a general realisation that there is need both for a more intensive research effort in plantations and also infact more important to use extension as a means of ensuring that the resulting technologies are made known and used by the plantation owners - large and small. The research priorities for the plantation industries set by the Institute are: a) plant breeding for resistance/tolerance to diseases pests and drought, b) increased productivity and high quality, c) establishment of gene banks, d) development and application of tissue cultural techniques for rapid multiplication of elite types, e) creation of variation through somatic embroyo culture and proplasm fusions. This calls for a multidisciplinary approach for all plantation crops to result in pesticide residue analysis, genetic engineering and biotechnology, cryo-preservation centres, insectarium and cultural data bank. *Coconut* which has now been classed as an oilseed needs intensive investigation as a means of containing coconut root so that the VIII Plan target of 12,000 million nuts over 21 lakh hectares are attained. Finally the present lack of research funding should be substituted by levying a I per cent contribution on gross turnover on all plantation crops. This can and should be realised in the remaining 4 years of the VIII Plan.

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III. Industrial Development in Tamil Nadu

December recorded the usual plus and minus points in the industrialisation picture of the state. First the plus points, the government points to some positive indicators on the *accelerated industrialisation* of the state. Against the 1989-90 subsidy of Rs. 4.24 crores for setting up new, large and medium units, between April - November of the year, 1990, Rs. 7.33 crores had been sanctioned: under the scheme of loan or deferral of sales tax to new units Rs. 12.26 crores were provided in 1989-90, but between April-November 1990, Rs. 104.95 crores were authorised: work on the development of the 3 urban sanctioned growth centres at Perundurai, Nannilam and Gangaikondan is about to start. Two *printing* establishments are being developed, one is by ITC in a Rs. 900 crore project for manufacture of newsprint and printing - writing paper jointly with Tamil Nadu News Print (TNPL) and other on the rapid development of small letter press printing units (1500 of them), desk

printing units 1500 of them), desk top printing units and offset and printing press all in Coimbatore to cater to the printing business demanded by growing industries and galloping business activities. Again the *Coimbatore pioneer Machine Works* (CPMW) is being merged with Lakshmi Automatic Loom works on the approval of BIFR which would increase the equity capital CPMW, improve and rationalise its management and restrain its work force in the new technology being introduced. Ashok Leyland's *Hosur Hino engine manufacturing* unit is moving towards fuller indigenisation (80 per cent) over the present 40 per cent and to double its production of engines from 500 to 1000 a month calling for capital expansion and increased trained labour force. *Madras Refineries* which has launched the pincer technology project to recover contextual pins as part of its drive to conserve energy, reports that it will be implementing several projects-tube expansion, good grade hexane, sewerage water treatment etc-all with an additional investment of Rs. 650 crores from its internal resources. In addition, there is the Rs. 1380 crores Aromatics projects which was approved (see Vol XXp 457) but which with the change in government is being reviewed again. This is not a positive factor, and is a case of politics intervening and interfering with industry. An encouraging development is the step taken by the Manali complex of petro chemicals works for dealing with their major problems in an integrated way. These problems include disaster management and fire fighting, the use of MRL feed stock, roads, telecommunication, schools and hospitals, water and sanitation. This could be a pointer to other such large units in Coimbatore, Hosur etc. *TI cycles* announces its shifting its component sourcing to Tamil Nadu from Punjab, which specialises in this area, not because conditions in the state are industially more attractive but in order to avoid the disturbed condition in the North. Similarly *SPIC* is buying the TIDCO's 40 per cent shares in TAC, which is a move in the right direction of the state not taking on entrepreneurial function. Finally the decision to ban the export of finished *leather* will enable the large number of leather factories and firms to produce value added leather goods as well as their exports. The plea of some parts of the industry to defer for 2 years the decision on the banning will simply put off the day when the industry will face the recession in the market of the US. In Europe and USSR there are no decline in the demand for leather goods.

Against this flurry of industrial activities in December, there are some serious negative facts to be noted. Some long term factors are having a depressing effect, such as the *direction and rate of industrial investment* with little union investment uncompensated by the private or joint or associated sector, the heavy reliance on traditional industries like cotton textiles, sugar mills and non metallic mineral projects, the direction of savings in non financial assets, and the failure of inhouse research activities to promote innovation. Second, attention has been called in the previous issue of the Bulletin to the trend of *the Savers in the State not being part of its boom in the capital market*, not being involved in the run away equity culture that characterise Bombay, Ahmedabad, Calcutta and Punjab. Taking just one index out of 31 lakh new issue investors. Madras has only 80,000 against

7.6 lakh from Ahmedabad 5.9 lakhs from Bombay, 2.8 lakhs from Delhi and as Tamil Nadu companies are doing well and infact attracting equity investment from outside and Tamil Nadu savers prefer bank deposits and fixed assets to investing in equity. Further, Tamil Nadu firms are not in the forefront of the race to raise fresh capital. Hence the question has been raised whether once more Tamil Nadu will be losing out in the industrialisation race gripping the country. On more limited examples of the minus factors at work, *Buckingham & Carnatic Mills* is in a serious situation and has applied to government to close down its mills due in part to prolonged labour trouble and in part to managerial incompetence. This is particularly regretful as Bombay has just received a letter of Intent for implementing its Rs. 60 crore modernisation programme sanctioned by IDBI. Its Bangalore unit has started the programme and the Madras unit is stuck because of the deadlock referred to. *Brooke Bond* is missing out a high growth business opportunity by going slow in the poly bag segment of the retail tea market and as a consequence losing out to Tata Tea according to the Credit Rating and Information Services of India Limited (CRISIL). The complex fertilisers manufacturing units of *Madras Fertilisers* is in serious trouble as it has had to close the unit for want of phosphoric acid, one of its essential inputs needed by it for its end product fertilisers, 17-17-17 NPK. This is the second time that MFI faces this kind of interruption which reduces its capacity use. Another negative area is *engineering exports* — auto growth, commercial vehicles, machine tools, textile machinery, industrial castings and values, cutting tools and marine freight containers — where the decline in demand of the Gulf countries due to the embargo and the Gulf crisis is causing a fall off in exports from Tamil Nadu and other Southern states. Again the conflicting stands taken by the 2 departments of state (industries and rural development) on a supreme court judgement has caused a dispute with *India Cements quarries unit*. The result is that several hundred metres of granite are unlifted resulting in heavy loss to the firm and the government. Another area of concern is that related to the 2000 *soap manufacturing units* centered mainly in Coimbatore with an annual turnover of Rs. 200 crores who face raw material shortage (the 30 percent crude cut has dried their supply of linear alkyl benezene) and so has not only held back the 10 year plan to increase soap production by 300 per cent, but has forced the units to close down — hopefully temporarily. *Enfield India* has reversed the several earlier decision to sell its sick subsidiary Enfield Electronics and has instead applied to the India Bank for a Rs. 6 crore of line of credit. This is a questionable decision, because its loss is likely to continue. It is shifting its plant and machinery from its Ranipet location to Madras which it hopes will enable the subsidiary to enjoy some of the common facilities of the present company. However as it is restricting the inhouse assembly of sets and instead buying them in bulk from a Delhi firm its assumption of economy is questionable. This is a case when the private sector firm is using poor judgement. The need for meeting adequately the demand of the state for fertilisers either by expanding the existing units — MFL, SPIC, NLC or preferably by granting approval to MFL's proposal to start a gas based fertiliser plant at Cuddalore, referred to earlier (see Vol XX p425) needs attention

to prevent the growing feeling that the state in general is being neglected by union authorities centred in Delhi. Once more this balance of plus and minus seem to tilt the scales against the state's rapid or even normal pace of industrialisation.

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IV Education, Science and Health

Educational Reforms

The Ramamurthy Commission handed its report to the Government which did not release it but said it would place it before Parliament; Titled Towards an Enlightened and Human Society, the report is in 3 parts—Part I its recommendations, Part II is the public's perceptions on education and Part III is the reactions it has received for its perspective paper (see Vol XX p508 & 809). Atlast the census which is starting now has redefined child literacy and rightly decided to consider children upto the age of 6 as illiterates. This seems obvious, but often the volume or percentage of illiteracy taken from census includes all enumerated in it except those who are noted as educated or in school and college. All of us-rich and poor, and all castes and in all regions are born illiterates and so it is necessary to exclude these from the definition of illiteracy. The latest survey of the Operation Research Group states that on this basis 57 per cent of adults of 5 years' in the country are illiterates, with the rate being a high 80 per cent in the Hindi belt. One fourth of urban adults are illiterate while it is 68 per cent in rural areas. The adult population is increasing in percentage terms, nearly being 45 years and older but the number of adults in the age group 15-24 is much higher in urban than in rural India indicating the migration trends. One fourth urban adults are illiterate including 37 per cent of urban and dependents (their literacy rates increases as family incomes increases), while 68 per cent of rural adults and 69 per cent of rural housewives are unlettered. The report shows also higher non education and higher unemployment among women compared to men. We now have all the data on illiteracy what is needed is action to wipe it out at the adult level through MPFL and BGVG and through primary schools. Rajasthan reports an educational primary school experiment which takes account of the fact that though there is a surplus of educated unemployed in the country and state, there are remote villages and habitation of major illiteracy and poverty where no trained teachers are willing to serve. In this situation, taking a leaf from the National Adult Education Programme, the government chose a person from the village who has had 8-10 years of schooling and gives him intensive training for a month on teaching methods. The project is successful and its assessment in a bloc when it was made showed that it is doing well. The teacher is a local person and so fits in with formidable difficulties of poverty and illiteracy. There are 3 changes which should be made in the scheme. First, there is no need to have Swedish aid for the project. We have the resources for it. Second, the teacher to be should be chosen not by the state goverment but by the local panchayat. Third, the period of training should be extended. At the level of professional and technical education, the World Bank has added to the documentation on the need for reconciliating professional and particularly polytechnic education. On the one hand it points out that Indian industry has found ITI trainees of poor quality or not trained according to their needs. 15 years ago MIDS in an exhaustive study pointed this out and suggested that their training should be done not only in closed classrooms or workshops but essentially in industries, because for one thing industrial techniques are changing so fast that no ITI curriculum can keep up with changes. Now the World Bank comes back to this and says that the linkages between ITIs and industry should be strengthened and in this regard private ITIs are in a better position as they have close links with industry, some of them being sponsored and funded by industry. The Bank report reviews also the National Vocationa. Training System (NVTS) and recommends its expanded intakes as it estimates that 1.45 lakh technicians will be needed by 1995 against the current output of 90,000 which will go upto 1.1 lakh by 1995. It wants the training levels of ITI and apprentice scheme trainees to be raised. The same problem is faced by polytechnics when they are unable to attract people from industries to their faculty. The World Bank's suggestion on this is to recruit academically high level persons to the polytechnic staff and give them exposure in industry for 6 months. These are essential and rather well known problems and remedies. The government is getting a loan from the World Bank for polytechnic upgradation. Just as both the diagnosis and remedies are known the Bank funds are not needed as they simply divert scarce local national resources as conterpart funds for these programmes, which should be decided on the basis not of funds available but of the priority needs of the institutions and industries. In this area of technical education, special attention and provision is needed for women's stechnical training to enable them to qualify and enter economically independent professions. In university education, a meeting of Vice Chancellors and the Chancellor in the state has decided to accept the UGC guidelines for performance approval of the university and college teachers and so to improve their recruitment. The universities are to coordinate their programme in adult education which is needed as much for their health as a means of meeting the needs of the illiterates.

Science

As in the case of polytechnic teachers not attracting men from industry, in science today the problem is not braindrain to other countries so much as an "internal haemorrage". Outstanding science graduates are being attracted by IAS, banks, computer science and management. The need is to develop a system when these few good science students will stay in the science stream and develop to the high level. How far is the lack of incentives at the end the cause compared to the rival avocations, how far the environment for science is basically poor and unattractive needs further examination to solve the problem. One of the programmes which can attract scientists as well as engineering students in the system of science parks where the infrastructure of workshops, tools and equipment and raw materials are provided to develop Industrial openings and outputs and not simply to meet the needs of existing industry. For this there should be motivation of scientists and support from industry — not from government. One of the new areas that is being occupied by scientists — which could also help in retraining scientists in science — is their increasing involvement in basic social and economic programmes, of illiteracy, campaigns (infact it is scientists who have proposed the scheme for all colleges and universities to be closed for a year so that all the 50 lakh staff and students can move out of their educational building to the community where they can act on removing illiteracy, help in providing drinking water, improve nutrition and women's welfare etc); in this direction, space scientists have developed a plan for a few synchronous satellite for educational purposes called "Gramsat" which will launch 2 small satellites (at a small cost of Rs. 100 crores). It will function in 6 regional languages and be beamed to workers, students and adult members of the country to remove illiteracy and deal with their problem of health, sanitation, drinking water. The project must provide the equipment for the villagers who are too poor to buy a TV set or a booster. Space scientists have also launched a 100,000 cubic meters baloon carrying diffusion and spherical probe instruments to study and understand the interaction between our biosphere and geosphere with particular reference to the poteential impact of human activity on the country's and world's climate and habitat. Also scientists using data from satellite have prepared the country's first atlas containing detailed district wise maps of ground water resources as a contribution to solving problem of water availability. Scientists who were working at the fast breeder reactor at Kalpakkam as one means of meeting the country's need for thermal power (it could generate 40 million watts and electricity (it could generate 13 million watts of it) has now hit some technical snags and will be delayed for 3 to 5 years

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V Employment and Labour Relations

Information on the employment front in December is not encouraging and somewhat confusing. The problem in states is not using JRY & IRDP funds adequately and lagging seriously in employment generation was identified. The remedy proposed by the union government is to call a meeting of the defaulting states and discuss the problem and the remedies. This will get us nowhere-it is like asking a sick person to cure himself. What is needed is for the state government concerned at the level of the chief minister and his cabinet to establish a plan to implement the programme, set priorities, targets and deadlines and monitor their adherence. The confusing element is that while on the one hand, the union government review shows Tamil Nadu as topping in all other states both in financial and physical activities and implementation of JRY (which in Tamil Nadu is known as the Jawahar Velai Vaipputhittam). an official overall survey of the economy shows that despite a steep increase in the capital employment, value addition output and wages earned, the employment front shows a negative trend. Using ASI data on factories, it shows that number of workers employed was minus one percent, that is a fall from 693,073 persons to 685,142 with a slight increase of the number of employees by 0.4 per cent, from 860,843 to 861.161. The impressive value additional of 2.12 per cent means that this was at the cost of additional employment. The additional investment (9.05 per cent) went into capital intensive and labour saving activities at a time when the Employment Exchanges showed a rising of those registered for employment. While invested capital rose from Rs. 822,840 lakhs to Rs. 896,840 lakhs to Rs. 896,406 lakhs, wages rose from Rs. 74.053 lakhs to Rs. 80,686 lakhs but emoluments grew by 13.39 per cent from Rs. 112.185 lakhs to Rs. 127,208 lakhs-which is on all fours with the difference between workers who are those employed to work in the factories and employees who include besides workers, proprietors, partners, chief and family members. Wages paid to workers include basic wage, DA, OT, shift allowance, leave wage, holiday wage, regular bonus, while emoluments include all this plus the imputed value of benefits in kind. Thus in 1986-87 a factory with an average investment of Rs. 42.74 lakhs in fixed capital and Rs. 60 lakhs in productive capital provided gainful employment to 64 persons, produced goods and services worth Rs. 107.1 lakhs and contributed net value added Rs. 20 lakhs to the state income. Taking an employee as a unit of measurement, an employee in the organised sector had on an average work with a fixed capital stock of Rs. 60,400 gave an output of Rs. 66,300 and contributed to the state income by way of net value added Rs. 31,000.

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VI. Other Items

IIEP

The annual meeting of the Governing Board of the International Institute of Educational Planning was held in early December in Paris. It was preceded by a study workshop at Abbe Raymond at which 3 projects in the year's programme were examined in depth and a number of suggestions made to the secretariat to improve future execution.

The Board reviewed the Annual Report of the Director for 1990 and noted it with satisfaction. It discussed and approved the programme and budget for 1991 and noted that despite financial constraints, it was well and fully formulated. It ended by electing a new chairman, Mr. Victor Urquidi (Mexico) for a year term, the present chairman having completed his service—two terms of 5 years each.

TNSC & ST and AIR

The six monthly meeting of the Executive committee of the Tamil Nadu State Council for Science and Technology met in December. It reviewed the ongoing projects and approved the new projects which were presented, with some being referred to other possible sponsors for funding. The Committee once more expressed the view that there should be the Council's own priority and thrust areas in which research proposals should be invited instead of just responding to requests receive from scientists. It indicated 4 priority areas for council support. The committee approved the budget for 1991-92 and in this it made provision for finance for the centres for transfer of technology. AIR organised a radio discussion on micro level planning — the Indian experience. It was agreed that this level of planning was so far limited to 3 or 4 states and on the basis of their experience it is now necessary to generate this planning level at the panchayat level for which there should be agreement on the subjects to be left to the panchayat and the funds earmarked for their operation. The experience in West Bengal also showed the importance ror micro level planning of a wide fanging programme of land reform to be accomplished as a prior condition.

Core Group on univeraities and colleges

The Core Group of educationists, scientists and planners working on a programme for universities and colleges beings closed for one year when their 50 lakh students and staff would work out in villages and urban slums to remove some of the ills of poverty-starting with illiteracy and going on to health, nutrition, environment, water pro blems, met in Madras for 2 days in December as a first step in moving out of Delhi to the country as a whole. In Madras they met the Chancellor Vice Chancellors, Principals of Colleges Student Unions, Parents and Alumni, Political Parties and the Government. There was welcome to the proposal which was seen as one which would give new life and meaning to the country and its leaders. As a result of the meeting in Madras, a core group for the state has been formed with the Vice Chancellor of Anna University as Chairman to Develop the new curricula needed for the programme and to experiment on a small scale with full time work by staff and students on illiteracy and related problems in a locality.

RDI and Alliance Francaise

The quarterly meeting of the Board of Directors of Reader's Digest met in Bombay in December. It reviewed the ongoing work of the Digest and noted that despite somewhat depressed market conditions, the Digest is doing well and earning a high level of profits. It noted the problems of obtaining government approval for transmitting the annual license fee to Reader's Digest, New York. There was a meeting of the member of Alliance Francaise in Madras to welcome the New Director of the Alliance. The occasion was used also to suggest some programme for the Alliance and a few joint programmes with the Indian Council of Cultural Relations which would be mutually enriching.

CSD

The Annual General Body meeting of the Council for Social Development was held in December in New Delhi. The important research programmes of the council were reviewed and emphasis was laid on its unique features, as social development was still undefined and research in it rather scanty. The pioneering work in this area by the Council was commended and some guidance was given for future research. In this connection the report of the Review Committee which had just been received was noted and, it was decided that it should first be considered by the executive committee and on the basis of its findings there should be a meeting of the general body to consider the report. The budget for 1991-92 was approved.

IIC

There was a meeting of the Board of Trustees in December when the problems conected with membership of the centre — the classification, the number in each, the fees — admission and annual fees for each class were discussed and decisions made. It was noted that the General Body meeting would be in March, when the final report of the present director would be presented to the General Body. At a private session of the Board, a first discussion was held on various names which had been suggested for the post of the Director which falls vacant on April 1, 1991. There was general agrement around 2 names which would be further explored and a decision arrived at in a month.

SPC

The State Planning Commission is becoming quite active. Apart from the 2 meetings in December referred to earlier, preparations were on for a series of meetings in January to review Part I — (ongoing Non-Plan) schemes for 1991-92 to complement Part II — plan schemes which had been reviewed and approved. There are also to be meeting of the commission — to review special sections of the VIII Plan such as water supply and roads.

January Development Seminar

The paper for the February Seminar Promotion by of SSIs in Tamil Nadu—The Missing Dimension by C. E. Karunakaran together with a summary of the discussion on the paper at the seminar appears as the first article.

Second Article

A note, Current Deficits and its Malcontents, appears as the second article.

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M I D S News

Dr. A. Vaidyanathan participated in a workshop on Jawaja Wastelands organised by Society for Promotion of Wastelands Development, New Delhi, 15th January, 1991.

He participated in Dialogue on Bio Technologies : Reaching the Unreached, organised by M/s. Swaminathan Research Foundation, 22nd to 26th January, 1991.

He also participated in Seminar on Problems of Development in Andhra Pradesh organised by Centre for Social Sciences, Hyderabad, 2nd & 3rd February.

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Mr S. Guhan addressed a group of economic and financial journalists at a meeting jointly sponsored by Research Institute for journalism on Eighth Plan for Tamil Nadu on 22nd January.

He made the lead presentation on 'Report of the Ninth Finance Commission: Resource Constraints of States' at seminar organised by the India International Centre (Economic Affairs Group) at New Delhi on 25th January.

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Dr. C. T. Kurien delivered the first of the Harmony India lecture series on "Towards a Secular Society" in Madras on 1st February.

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Dr. S. Neelakantan attended the inauguration of Economic Association at Thiagaraja College, Washermanpet on 11th February.

He also attended Advisory Committee meeting of the Southern Regional Centre of ICSSR at Hyderabad on 28th January.

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Prof. J. C. Sandesara and Prof. Nirmal K. Chandra visited the Institute on 24th January.

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January Development Seminar

Promotion of Small Industry in Tamil Nadu - The missing Dimension

C. E. KARUNAKARAN
Managing Director ITCOT, Tamil nadu

The premise on which I would like to start is that the resources available with the state for industrial promotion are extremely limited and the need therefore, is to see that these are most effectively applied to achieve the desired results.

What are these desired results? What ought to be the end results of small industry development in Tamilnadu? Should it be export promotion? Should it be regional balance? Should it be employment generation? Should it be entrepreneurial growth? Should it be rural development?

To answer that it should be all this and more is not satisfactory. You cannot build a strategy on a diffused focus. In a two day Seminar at MIDS last year on the industrialisation of Tamilnadu, Dr. Malcolm Adiseshiah raised the question : Industrialisation for what? This was never adequately answered.

My submission is that direct employment generation in a dispersed manner ought to be the main guiding principle of small industry development in the State, all other objectives becoming secondary. This is on the assumption that unemployment and poverty are the two largest problems facing the country today and lie at the root of all other maladies, including the caste and communal divides.

Forty three years after independence, we find more than half our population below the poverty line (ORG demographic survey of 83,000 households) and 15% of our employable population

not employed. At the micro level, a social scientist (Kathleen Gough) who studied two villages in Thanjavur district in the 1950s and again in the 1980s, found that in the intervening period, more and more rural people have been marginalised and immiserised, not only in relative, but in absolute terms.

What other core concern can there be for our industrialisation drive than the need to address this central reality of our society ?

If employment generation is accepted as the basic objective of small industry promotion, it then becomes necessary to apply this touchstone to the present promotional measures adopted in the State.

But before one can do this, it is useful to come to some understanding of the small industry scene in Tamilnadu. If you ask the Directorate of Industries & Commerce, they would say that Tamilnadu has around 1.1 lakh small scale units. These are the units registered with them with in an investment ceiling of Rs. 35 lakhs for plant and machinery but with no lower limit. A countless number of ther units, not registered with them, also exist. These are apart from the Khadi & Village industries, coir, sericulture, powerloom, handloom and handicrafts units which are not required to register with them. There is also the certainity that a good part of the registered units do not exist for one reason or the other. If all of them do exist, they would probably employ around 7.0 lakh persons if one goes by the all India average.

Going by the Annual Survey of Industries figure, which are more reliable, Tamilnadu, in 1985-86, had around 8.6 lakh persons employed in around 13,000 factories, three quarters of them in units employing more than 50 persons and the rest in small registered factories (having more than 10 employees with power or 20 without). A point of interest is that during the eighties, registered factories have been growing at a slow 3% while the DIC registered SSIs have been growing at 15%. Household industries account for around Rs. 10 lakhs employment according to the 1981 census.

One reality about this spectrum of small industries in Tamilnadu that is of relevance is that it is not a homogeneous whole, but one having specific discontinuities along the size scale. If one looks at units operating at investment levels of Rs. 500, Rs. 5000, Rs. 50,000, Rs. 5 lakhs and Rs. 50 lakhs. It can be seen that they have very little in common with each other in terms of the entrepreneur profile, marketing problems, infrastructural or promotional needs and such other. If one is to draw just one horizontal line alone the pyramidal structure of this industry, it can be done at around the Rs. 1.0 lakh level of investment in plant and machinery, below which would fall 90% the DIC registered SSI units and all of the unregistered units. For convenience, we can call them Village Small Industries (VSI) and the other 10% as Modern Small Industries (MSI).

Do the State activities for small industry promotion take note of this differentiation, and do they make a conscious choice of which segment they would promote more than which other and what measures are more appropriate to what segments ?

I would submit an undifferentiated approach - barring TRYSEM, IRDP and

KVIC - has characterised all central and state policies towards small industry, with the result that, even as happened with agricultural promotion - where credit and extension support designed for small and marginal farmers ended up in the hands of large farmers - policies designed for the very small have largely benefited the SSI units at the upper end of the investment level. Many observers have pointed this out. "Lending agencies tend to lend toward the upper end of any limit established as the definition of small". That he adds "there is no reason to suppose that this is to be regretted" is quite another matter.

Prof. S. K. Goyal goes to the extent of accusing external influences for corrupting the early concept of State protection and assistance for local industries that produce consumer goods to meet local needs using local raw materials, local labour and local skills, and for hijacking it in favour of the modern urban sector, crushing in the process, the very village industries that were sought to be promoted.

That the dice is loaded heavily against the really Small units in Tamilnadu can be seen by any close observation. Industrial sheds have been provided to 3000 units, government purchasing assistance has been extended to a couple of hundred units and 5000 units benefit by raw material supply, out of a total of more than one lakh registered SSIs and probably an equal number of unregistered SSIs. It is a safe bet that all this assistance is garnered by the modern small sector — and there, too, by a small part of them — with the tiny sector left out in the cold. The same is the case with capital and sales tax subsidies and other measures.

Credit reach to the tiny is also a major problem. RBI Banks do not normally lend to this sector without collateral, and often even with collateral. The SEEUY scheme is very limited in scope, and in its rigidity, has resulted in much sickness.

In a study conducted by ITCOT of 100 defaulting units in SIDCO industrial estates in Tamilnadu. 40% were found closed and of the working units, 40% did not have access to bank funds for working capital; they had to borrow from the outside market at usurious rates. If this is the plight of units in the state sponsored industrial estates — having average fixed assets of Rs. 4 lakhs per unit — the plight of the smaller units elsewhere can be imagined.

In fact, a latter study by ITCOT of more than 200 small units that were not registered with the Directorate of Industries having an averrge capital employed of Rs 20,000-showed that almost all of them were not touched by any of the support measures of State and Central agencies or banks. Their finances came entirely from own sources, friends and relatives and mo-ey- lenders. A cynic might say that it is this freedom from governmental support that accourics for the fact that they were alive and kicking.

It is, however, not a cynic, but a responsible economist, J. C. Sandesara, who came to the conclusion, after a field study of modern small sector units, that the unassisted units performed better than the assisted units. As far back as 1961. Dhar & Lydall concluded that the modern small scale sector is as capital intensive as the large scale and does not merit preferential treatment.

Thus we have the picture that almost all of the governmental promotional assistance goes to a very small segment of the small industries in the State, forming part of the modern sector, and even here, the wisdom of providing too much assistance is questioned by some. Little, Mazumdar & Page have this to say on bank credit: "There is nothing necessarily wrong with a scenario in which both inexperienced entrepreneurs starting up in a small way and also small established enterprises are unable to get institutional credit. Easy access to such credit for new enterprises can result in adverse selection whether interest rates are high or low, and then there may be too many founders who will never succeed".

This modern small industry segment, constituting the top of the SSI pyramid, also controls the organised small industry voice raised in all fora. The office bearers of the leading SSI Associations come from this segment and the truly tiny and village industries have no voice. Almost all governmental meetings with SSI Associations are conducted in English, which the vast majority of small industrialists in Tamilnadu are not familiar with. In Madras, there exists an association of tiny industries which claims a member ship far above any other SSI Association, but is not represented in any of the government fora. Its president, who does not speak English, depends on the elder brothers of the other SSI Associations to open the doors of bureaucracy for him.

To say all this is not to imply that the modern small sector is not deserving of support or espousal. It most certainly has a very important role to play, but the point is that attention is so focussed on this sector that quite often, the term SSI is taken to mean only this sector, to the exclusion of the rest of the pyramid that accounts for the bulk of its employment.

Since we have chosen employment generation as the primary odjective of small scale industrialisation, it is necessary to look at the ground realities at the base of the pyramid too. The base, if one looks closely at it, is constituted by the large number of self employed households who have taken to some or other form of subsistence livelihood in non-farm activity, — passive industrialisation, as C. T. Kurien would call it — having been thrown out of the agricultural sector as the land could not support them. They crowd into handicraft, KVIC and other such production, competing against each other and bringing down prices to distress levels. It is significant that some 38% of those below the poverty line are from the self employed households according to the 42nd round of the NSS for the year 1987-88.

This subsistence activity characterises a large part of the informal industry sector in the urban areas as well The ITCOT study of small unregistered units in Tamilnadu found most of them reporting good profits, but these were before accounting depreciation and value or family labour and often before cost of capital. The profit disappears if this is accounted, but the object of the activity — to provide gainful employment to the man and family — is well served. A similar conclusion is reached by Nirmala Banerjee after a study of the ancillary units to the fan Industry in Calcutta. On finding that if the wages for the owner and his family were to be included his costs would exceed the return, allowing him only a negative return for the entrepreneurial function, she comments: "In the short run, this kind of pragmatic solution appears to fit in with the general economic policy of the country. It keeps down the costs of the large firms; it creates some self-employment and it also earns some foreign exchange through exports for the country. However, it must be acknowledged that this has been made possible by the gross exploitation of a section of the country's workers to whom the country has failed to give not only a guarantee of a minimum living but even access to technical knowledge, and information about the market and about facilities offered by the public sector to industrial units".

Going back to the rural sector, growth of any kind of self employment or wage employment in non-agricultural activity, even of the subsistence kind, has been painfully slow. Census and NSS statistics show a decline of household industry in absolute terms. Between 1961 and 1981 rural work force engaged in non-farm activity grew at a low 0.4% per annum, while the rural population grew at 1.7% per annum. It is obvious that creating industries or non-farm activity-in the rural sector is not that easy. What are the constraints? The first is the market.

The Gandhian principle of local production for local consumption ,would work only so long as local incomes rise in a dispersed manner in line with the growth in the national economy. The reality has been, however, that the cities have grown faster at the cost of the villages and whatever development, rural areas have been of a skewed nature, fueling demand for urban products by a small minority of the rural rich. This cannot but happen when the population dependent on agriculture has remained more or less at 70% over the past four decades, bur agriculture's share in GDP dropped from 60% to 30%.

The crucial importance of strengthening the rural markets is emphasised by many. Reviewing the government policies concerning small scale industries, Arun Ghosh comes to the conclusion that redistribution of landholdings leading to more production and better distribution of income in the villages would be a necessary condition for rural industrialisation.

This is the reality in other parts of the world as well. A joint study carried out by UNDP, UNIDO, ILO, and the Government of the Netherlands on experiences in the development of Rural Small Industrial Enterprises (RSIEs) in nine developing countries (India excluded) came to some very interesting conclusions. A few of them are worth quoting verbatim :

— Micro-policy favouring the growth of rural income should be given priority in RSIE-development strategies and should preferably precede supply-side measures of support to RSIE.

— The development of an agricultural surplus is a pre-condition for the stimulation of non-farming activities such as RSIE in rural areas. If no such surplus exists, efforts should primarily be directed towards achieving such a surplus.

— In order to optimise its effectiveness, supply side institutional support for RSIE should be framed in a macro-policy which enhances the growth of disposable rural income.

— In order to stimulate RSIE, more emphasis should be given to favourable macro-policies and general strategies aimed at economic diversification. Such policies should include investments in rural infrastructure and social services, price policies favouring farmers, wide distribution of benefits in rural areas to generate effective demand, and general supporting measures for agriculture (irrigation, extension, research, credit).

Likewise, a joint ILO/UNDP assessment of employment and training programmes in Bangladesh had this to say : "It seems unfortunately clear that far too many resources have gone into traditional, institutionally-based vocational training programs in Bangladesh. For one thing, the more immediate problem in labour market is lack of demand rather than lack of supply. Itis a lack of opportunities more than a lack of persons to flli opportunities This is not to say that there are no training needs in the country, but whatever they are, they are not being well served by the existing training complex with its institutional orientation. Training needs pale in significance relative to employment needs : that is, opportunities for employment. Training permits vacancies to be filled it does not create vacancies or opportunities. One can only wonder at the tilt of resources in favour of training at the expense of resources in favour of the creation of opportunities." This aptly describes much of the TRYSEM programmes in India too.

C. T. Kurien quotes figures from the 29th round of the NSS to show that there is a close correspondence between the Value added per worker in rural industry and the per capita income in the State when one compares Punjab and Orissa. "It is the general development of the area accompanying fast agricultural growth, that seems important for improvement in productivity of rural industries".

It is in this area of generating agricultural incomes in a dispersed manner that Tamilnadu's record is anything but spectacular. Tamilnadu brings up the rear among the ten major agricultural states in India in terms of value added per worker in agriculture in 1980-80 and showed the lowest percentage increase over 1970-70. At 1.12% per annum, it had the second lowest agricultural growth between 1970 and 1984. Neighbouring Karnataka and Andhra Pradesh experienced growths of 2.44% and 3.31%. It has the largest proportion, 4% of wage labour among the rural work force (1982-83-figures) having increased from 42% in 1972-73. The real wages of this large body of agricultural workers declined 24% between 1955 and 1980 as compared to Andhra Pradesh where it increased by 4% and Karnataka where it increased by 4% and Karnataka where it decreased by 3%. In fact at the all India level, Papanek finds that the agricultural wages have remained static over a twenty five year period, while the GNP per capita has increased 1.3% per year on average and comes to the conclusion that the entire benefit of growth must have gone to those with human or physical capital. The MIDS report on Tamilnadu's economy also draws attention to the fact that Tamilnadu's position in the poverty map of India is far from flattering.

The implication of all this for the rural market in Tamilnadu must be obvious. It is in this context that the effectiveness of KVIC, TRYSEM, IRDF and DWCRA, the programmes that are aimed at this sector, need to be viewed. The experiences — target oriented appr oach, mismatched training, leakage of funds, high administrative cost non creation of assets, loss of assets – have all been documented by many. KVIC industries failure to provide a living wage to their piece rated wage earners — as pointed out by Veena Mazumdar in her exhaustive study of KVIC performance — is directly linked to this market constraint. Even so there have been limited successes, but the numbers are to small too make any impact.

A second problem is one of reach. An organisation in Karnataka which set out to evaluate gender justice in the implemention of anti-poverty programmes, had to give up as they found the programmes had not even reached their target group — the real poor. The reality in Tamilnadu is no different.

Credit delivery through Banks and the revenue administration has not worked well, and presumably. does not work well anywhere in the world ; the UNDP study of nine countries referred earlier suggests that informal arrangements such as savings and loan associations reach the people better. The examples of SEWA in Ahmedabad and Grameen Bank in Bangla Desh show that lending through small groups where each member guarantees the loans to the other and support each other, works much better, and takes the credit to the really needy. Nine points of the loan to the really needy is its availability, not its subsidisation — which only tends to distort its use.

Everyone, by now, recognises that, for this class of borrowers, credit input by itself, is not enough, more is needed. The 'more' is usually interpretted as training, and quite often, as entrepreneurship training in addition to skill training This entrepreneurship training or, Entrepreneurship Development Programmes (EDPs) as they are called, are popular with policy makers, banks and governmental departments, because the theory looks attractive, a lot of activity is involved, the training ends in euphoria all round and the results are difficult to measure. These, once again, cover only a small fraction of the real entrepreneurs, are costly to organise and in many cases, their cost effectiveness is open to question.

But the basic point is that these are designed and oriented towards the modern small sector and not the rural small industries. In this perceptive assessment of EDPs as a whole, H. A. Romijn says this eloquently : "Firstly, it is evident that the current EDPs simply do not cater to these groups (the landless and the traditional artisans in the villages). The great majority of EDPs are aimed at the middle classes of society The contact and selection procedure (through advertisements in local newspapers, for example), curriculum design and teaching methods may suit the needs of this group, but they are not appropriate for people without formal education. Conventional EDPs may also be physically inaccessible for people in rural areas. Moreover, by section of the population, namely, those possessing certain entrepreuaurial traits,' the argument has been advanced that, in view of the underlying justification of this approach, namely that training can be given most effectively to those who stand the best chance of succeeding in business, the basic ingredients of EDPs should remain unchanged even if target groups such as poor rural women and out-of-school youth from low-income groups are

addressed. However, one can also argue that if a substantial impact of unemployment is to be made, it may well be necessary to extend training efforts also to those who do not give evidence of possessing such entrepreneurial competencies ; if for no other reason than that the great majority of this vast group of potential entrepreneurs do not have a feasible alternative employment opportunity and end up in some form of self-employment in any case".

This is the crux of the issue. A great majority of the workers involved in rural non-agricultural enterprises are in Own Account Enterprises, that do not employ hired labour. These self employed persons are not cast in the mould of the classical entrepreneurs, but have had entrepreneurship thrust on them by a society which could not provide full employment to all. They are in the game not because of the profit pull, but because of the poverty push. But entrepreneurs they must be, on pain of failure and greater immiserisation than wage labour.

This dilemma is highlighted by Anuradha Prasad in her evaluation of TRYSEM in the villages near Delhi. TRYSEM, or Training of Rural Youth for Self Employment, was designed as a typical EDP, but after initial failures, the scheme was enlarged to include wage employment as well, which meant that the entrepreneurial component of the training was given a go by altogether. Prasad applied tests of achievement motivation, influence motivation, personal achievement oriented influence and risk taking willingness on the TRYSEM beneficiaries and found them low on all the scores. She comments on the criteria laid out for identification of the beneficiaries : 'Where beneficiary was sought to have aptitude for innovative entrepreneurial activity, he was also sought from the poorest of the poor may not posses this aptitude".

But whether sought and trained under TRYSEM or not, the fact remains that millions enter rural self-employment in this country without the needed entrepreneurial capabilities, simply bacause the wage employment door is shout to them. It is for them that a safety net is advocated, even by the most unabashed votaries of total liberalisation and middle class consumption led growth.

How is this to be done? How does one provide a safety net overcoming the twin problems of insufficiency of market and insufficiency of human resource endowments?"

Strengthening the rural market is a matter of strengthening agriculture. It may sound anachronistic to say : if you want to develop industry, don't promote industry, but promote agriculture. But it needs to be said. It really means that a greater share of the finite to resources of the State should go towards the development of agriculture and the rural economy as a whole with distributive justice. Robert E. Nelson says it well in his review of entrepreneurship and self employment promotion in the Asia-Pacific region : "Programs which stimulate demand for the products of rural small enterprises appear to be valuable and are likely to reduce dependencies and promote a viable rural small enterprise sector. Rural small enterprises in most developing countries appear quite capable of producing more goods if more are demanded. With this approach there might be a de-emphasis on loan schemes, training and extension programs, and increased emphasis on conumption. High income groups spend a onsiderable amount of their income n imported consumer luxuries, whereas ow income groups in rural areas spend nost of their income on food and goods produced by local small enter- prises. Reducing income disparities in ural areas will have the two fold effect of reducing imports and raising consumption of domestically produced goods".

Action on this is in the area of macro policy and political direction. There is no escaping this if we are serious about employment generation through village industries.

The other market strengthening step will be to reserve a few well defined consumer products — such as footwear, processed food, clothing and soap — for the VSI category against the MSI and large industry, for a limited period of time. This is as much for providing an assured market as for making a public statement of what the priorities are. This is, obviously, in the province of the Central Government, but the State can lobby the case.

As for supply side measures, what needs to be attempted is the creation of an informal channel to act as a buffer between the commercial bank and the individual borrower, cushioning the bank's risks and reaching out to the borrower. The SEWA and Grameen Bank models were mentioned already.

Another model will be to integrate credit delivery with other supports including science and technology interventions. There is, at present, a negligible attempt to reach S & T inputs to this sector. ITCOT's experience in working with tribal persons in the Palani Hills and with the lock artisans of Dindigul has shown that what is needed for effective development at this grassroot level is total incubatory support in all respects, even including consciousness raising and literacy awareness. In practical terms, this is best extended through NGOs who maintain a trusting relationship with the target groups. One arrangement will be for a largely autonomous governmental agency to liaise with NGOs and provide them with training, technology and extension supports. The costs of development delivery will be afordable in the case. A limited model of this will be the CAPART at the central level.

Another model will be the Technology Livelihood Resource Centre of Philippines which not merely serves as a single contact point for all voluntary organisations and co-operatives for facilitating governmental and bank assistance from a multitude of departments, but goes out to create NGOs in areas where they do not exist and sponsors research development appropriate to its client needs.

The question then arises whether the State at present spends any resource in the development of VSIs at all and whether it should be doing more. Whatever the state spends on this at present is as part of central programmes such as KVIB, IRDP and DWCRA or a few internationally funded projects. These are regarded as basically poverty alleviation measures and come under the rural development wing. Since the activities involved are of many kinds, including trade, service, animal husbandry and such other, this is not even regarded as industrialisation and goes under the generic name of income generation.

Is there a case for the State to pitch in heavily for the development of VSIs? I would not enter into arguments on the technical efficiency of SSIs, which are, in any event, applied largely to the MSI, with most studies confined to this sector Where they are applied to the VSI, great caution needs to be exercised, as pointed out by Nasir Tyabji in the example of the handloom weaver, whose buying and selling prices are not reflective of true costs.

In any event, K. B. Suri, who has his own reservations on the efficacy of SSIs, is dismissive of the efficiency argument when the employment criterion is applied: "if rural industrialisation is accepted as a means to generate employment and improve incomes of the poor, questions about factor intensities and efficiency become some what redundant".

What is obvious is that if employment generation is to be the cornerstone of policy, there is no alternative to fuelling the growth of VSIs-and this includes the tiny sector in the urban and semi-urban areas-to provide jobs to who need it most, and, thereafter, to wean away more persons from agriculture to make that sector more productive.

This is one dimension that has been missing from the State policy of small industry promotion. To rectify the balance, it may be necessary to cut back on some of the current promotional efforts to find the resources. This need not be regretted. The modern small sector has a considerable amount of resilients and will thrive even it some of the props-which could be so only in the minds of the policy framers-are removed. (Ashok V. Desai has concluded, after a field study, that the only two meaninfgul supports to SSI are bank credit and excise duty relief).

Venturing into VSI promotion is a totally different kind of activity and calls for innovative approaches. It will not even be mere industrial promotion. It will be small business promotion, of which industry will be a part. The methods to be adopted can be worked out based on existing models.

But what is needed is the will.

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Summary of Discussion

Before requesting the author to present his paper on "Promotion of small industry in Tamil Nadu—The Missing Dimension", the Chairman, in his opening remarks, emphasised the importance of small scale industries in the economy of Tamil Nadu and pointed out the official hurdles that had to be crossed for the development of such industries in the State.

The author began his presentation by noting that direct employment generation is the basic objective of small scale industry promotion and that this touchstone should be applied for evaluating the present promotional measures adopted in the State.

He noted, in Tamil Nadu there are about 1.1 lakh small scale industrial units which are registered with the Directorate of Industries and Commerce. A large number of units which are not registered with the Directorate, are also found in the State. These are apart from the Khadi and Village Industries, Coir, Sericulture, Powerloom and Handicrafts units which are not requested to register with the Directorate of Industries and Commerce.

He claimed, that in the activities of the state the promotion of Small Scale Industry take note of this differentiation, and they do make a conscious choice of the appropriate segment they wish to promote.

According to him, one reality about this spectrum of small industries in Tamil Nadu that is of relevance is that of a non homogenous whole, with specific discontinuities along the scale size. If one looks at units operating at different levels, it can be seen that they have very little in common with each other in terms of the enterpreneur profile, marketing problems, infrastructural or promotional needs and such other.

He noted, credit delivery through Bank and the revenue administration has not worked well in promotion of small scale industry. Everyone, by now, recognises, for this class of borrowers, credit input by itself, is not enough, more is needed. The more is usually interpreted as training and quite often, as entrepreneurial training in addition to skill training. But this basic point is that these are designed and oriented towards the modern small sector and not the rural small industries.

Finally, he emphasised, "What is needed is the will".

In the course of the discussions, several participants pointed out the difficulties in getting data about small scale industries. Also, some of the participants gave detailed examples of how the State government has failed to make use of the opportunities to develop small scale industries. It was agreed that aggressive marketing strategy is essential to promote small scale industries.

P. ANBAZHAGAN

The current deficit and its 'malcontents'

A consideration in balance of payments adjustment*

A hapless public in India is witness to a burgeoning deficit on current account of the balance of payments (b.o.p.) An entirely related development of course, is the rising stock of external debt outstanding. Quite simply the payments imbalance has been financed by international borrowing, the exact magnitude of this stock is partly a matter of definition including the question of whether foreign currency denominated NRI accounts in India ought to be treated as external debt. Be this as it may taking a one from Wall Street's bond rating firms, the rest of the world must now view India as a somewhat indebted economy. This ought not to surprise us too much for the debt/export ratio the *prime ingredient* of credit worthiness has grown from 131 percent in March 1980 to 223 percent in March 1989. On our own initiative, the gravity of the external debt situation is to be assessed in terms of the contracted schedule of re-payment and anticipated trajectory of the current account deficit over the relevent period. An anticipated improvement in the current account prior to when the major portion of repayments are due would lead one to conclude that the external debt situation is not a cause for concern. However, right now the economic horizon scarcely afford the view of a bounty in terms of faster growth of exports over imports. So we had better prepare to adjust to a more sustainable payments situation.

The twin deficits

A most simple way of understanding the developments in India's external sector is to recall the rule of macro-economic balances that an economy must obey. This comes through clearly from a re-arrangement of the national income identity as follows $(M-X) = (G+TR-TA) = (I-S)$. where $(M-X)$ is the current account deficit with M = imports and X = exports, G = Government expenditure on goods and services. TR = transfers TA = taxes which makes $(G+TR-TA)$ the government deficit, while $(I-S)$ is the excess of private sector investment over private saving. The identity permits the reasoning that with $(I-S)$ steady, a growth of the public deficit must lead to a growing deficit in the b.o.p. That is where domestic saving is not

*Abstract from a lecture (revised), delivered at the Centre for Development Studies, Tiruvananthapuram by P. Balakrishnan

TABLE 1

Year	D/Y	CAD/Y
80 - 81	1.9	1.35
81 - 82	0.9	1.62
82 - 83	0.9	1.45
83 - 84	0.7	1.22
84 - 85	1.6	1.38
85 - 86	1.9	2.55
86 - 87	2.8	2.25
87 - 88	1.8	2.16
88 - 89	1.6	2.70

Notes/Sources : D = deficit of the Central Government (RBI : *Report on Currency and Finance*, and Ministry of Finance : *Budget at a Glance, 1990-91*) CAD = deficit on current account (*Report on Currency and Finance*, various issues. 'CAD/Y' figure for 88-89 is provisional and from RBI : *Annual Report* 1989-90). Y = GNP at market prices except for '88-89 in which year the denominator is GNP at factor cost (*Report on Currency* and *Finance*, various issues, and Economic Survey 1989-90).

TABLE 2

Year	BTG	CAD
80 - 81	—7808.3	—1656.6
81 - 82	—8628·8	—2317.3
82 - 83	—9813.1	—2296.4
83 - 34	—9604.7	—2262.4
84 - 85	—11150.7	—2852.4
85 - 86	—11521.9	—5927.3
86 - 87	—11272.2	—5830.0
87 - 88	—13049.5	—6292.6

Soure / Notes : figures are in crores of rupees : BTG = balance of trade on government account, CAD = deficit on current, account (*Report on Currency and Finance*, various issues) forthcoming the economy must look abroad for the necessary resources. This prediction is pretty well borne out by the data presented in *Table 1*. Though year-to-year changes in the magnitudes of the two deficits are not always co-ordinated, the on average higher figure for the budget deficit as a share of output for the second half of the eighties is reflected in an identical behaviour of a similar measure of the external deficit. The identity 'works'. But I shall be arguing that it is too aggregative to be of much use in devising a policy response.

The nature of the external deficit

While the overall category within the b.o.p. that is relevant when calculating the financing requirement is still the current account deficit as a whole, much may be gained in terms of an understanding of the possibilities for correcting the imbalance from a scrutiny of the compostion of the current account. It is only necessary to call for the simplest disaggregation, that of the balance of trade according to private and government transactions, respectively. This information is presented in Table 2. Note that in all of the years (for which the relevant data is available) in the eighties. 'BTG' the balance of trade on government account has remained in deficit and in most of the years it has actually increased. The overall current account deficit 'CAD' has behaved similarly over this period while remaining substantially smaller in magnitude. The last implies that either the balance of trade on private account or "invisibles" as a whole have shown a surplus throughout, which indeed is the case (see successive issues of the 'Report on Currency and Finance, RBI). Even without unravelling the composition of transaction on government account, it is possible to surmise that it is largely constituted by three categories of imports (exports on government accounts being near zero). Over the eighties these have been crude oil and petroleum products, edible oils and defence equipment. Appreciating the content of the current deficit is crucial to an understanding of which among proposed measures are likely to succeed.

Conventional remedies

In the recent history of developing economies, two cures for a persistent deficit in the b.o.p have often been proposed and on many occasions implemented. These are austerity (as represented by a reduction in aggregate demand) end devaluation. Since stylised facts, in this case pertaining to the outcomes of these policies, are notoriously ill-adopted for use in an evaluation of their prospects for success across historical moments. I shall assume nothing and consider afresh their potential in the present context.

Classically, austerity initiated by a general reduction in government spending is expected to work via the substitution effects following the now lower price of non-tradeable goods with the price of tradeable goods, governed by the 'law-of-one-price' remaining the same, the ensuring relative price shift in favour of tradeables is expected to bring about an increase in the resources allocated to their production. This is expected to improve the trade balance. In India today this is too good a story to be taken seriously as a mechanism for reducing the trade deficit in defence equipment, crude oil, A320s, or even edible oil in the short

run, even if lower government spending was to reduce domestic prices. More likely, austerity would contract domestic income. However the magnitude of reduction in income that may be necessary to bring about a significantly reduced demand for essential imports consumed by the private sector may be unacceptably high even when this process works well. Given the nature of the external deficit, it must be obvious that the macro-economic identity I had highlighted at the start gives us little handle on the Present problem. Non-targetted cutting of the public deficit is not necessarily going to effect the external deficit. Forinstance the government's consumption of oil (and the government is the largest consumer by far) or defence spending can only be dealt with by directly administered cuts. Let me emphasise that the argument is not that a programme of planned austerity cannot work as far as cutting the trade deficit is concerned. The point at the cost of belabouring that an across-the-board reduction in government expending whatever its other beneficial consequences is insufficient. On the other hand targetted austerity must work. One way of seeing it is to note for instance that as pointed out to me by a colleague, this appears to have been a particularly inopportune moment for the government to have allowed air taxis in this country. And on the last let me add that this service being provided by the private sector is not the issue at all.

Devaluation is expected to work by making exports cheap and imports more expensive. Whether a higher price of imported essential goods or intermediate inputs would lead to reduced use of these in the present context is indeed doubtful. In this sense, the present external deficit does appear to correspond to what is referred as a 'structural disequilibrium' in the balance of payments, a condition that is not amenable to a quick fix by manipulating prices. Therefore, in the short run, a devaluation might only contribute to the inflation rate. I am far from suggesting that a devaluation is incapable of correcting a payments imbalance under any circumstances whatsoever. The argument here, in terms of the content of the present deficit, is historically specific. Equally, an over-valued exchange rate could be a considerable source of short-run imbalance, not to mention instability, even in the absence of rupee convertibility, i.e., the current regime of exchange controls, and is to be avoided. However, with the rupee depreciating quite steadily over the past five years (for example the average rupee-sterling exchange rate has risen from 16.85 in 1985—86 to 26.92 in 1989-90) the scope for exchange rate reform as a means of improving the net exports position appears to be limited.

Guns and butter : of ends and means in adjustment

The present macro-economic configuration in the Indian economy is not sustainable under existing conditions. I am of the view that this requires an adjustment to a lower deficit on current account. The possible lines of action must by now be apparent. There must be an imports squeeze. The confinement of the trade imbalance to the government's books must surely make the task easier to deal with at least at the level of not having to device schemes which the private sector cannot sabotage. But the ease with which an axe may be wielded does not make its swing any less painful to bear. I refer to the essential goods among India's imports. After all consumption cuts are bitter to swallow. But, less jalebi now might well be one way of at least ensuring this delicacy in the future, unless of course we can completely replenish edible oil imports with domestic supply. There is an inter-temporal substitution story in here that is worth bearing in mind, especially with an eye to maintaing our credit-worthiness in the international credit markets. In any case, less jalebi is just an allegory for the necessary cuts, and need not be foregone in a package of effectively targetted imports reduction. However, in my view, stringent imports controls may well be the only way to shock the economy out of debt, and ought to be considered very seriously indeed. And this short-term measure need not at all be incompatible with a more open trade regime post-adjustment. In fact, the existence of extensive controls as a *permanent* feature only signals some fundamental disequilibrium in the system and is an attestation to the failure of economic policy. Moreover as Professor Wassily Leontief has observed, when national economic boundaries are closed the balance of economic power immediately shifts away from workers towards the capitalists (or under state capitalism towards the ruling class). Economic nationalism for its own sake is a somewhat crude and outdated ideal.

If import controls are instituted, the economy may well have to be run on a lower gear temporarily. This is so as to avoid the inflationary consequences of reduced supplies of essential goods that might follow. This might well be the elusive role of a reduced private sector deficit under present circumstances, i.e., while it may not be expected to bring down the external deficit, a lowering of domestic demand may be expected to contribute to *restraining* prices. The government does, of course have the option of managing the possibly lower supplies by rationing the concerned goods. This would keep prices down and the handling of the drought of 1987 suggests what this country's administrative machinery though most *often* in shambles can on occasion be vivified. Where rationing might fail, the higher domestic inflation rate must be seen as the *price to pay* for a reduced external deficit. It may also be added that going by past experience the relation between budget, deficits and inflation is quite weak in the Indian economy so that short of effective price controls, reducing domestic demand per se may not have much of an effect on the inflation rate.

I have not spoken of exports. This should hardly be interpreted as implying that they do not matter. To the contrary it has in fact become abundantly clear that the economy must export much more to finance the present proclivity for importation. A sort of having to run in order to stay in one place as it were identifying products, targetting exports providing potential export units with the necessary information and disentangling the red-tape of procedure are as necessary as they are unlikely to bear fruit overnight. But they ought to bo pursued relentlessly. Right now the government does not seem to be a hive of activity on this score.

Debt and desert

Macro-economic adjustment to a sustainable payments position often

embodies in it an inherently inequitable solution. When an economy as a whole is forced to tighten its belt a large number of those who may not have benefited from the original borrowing are called upon to face privation. In India the role of private capitalists in the increasing indebtedness of the national economy may have been somewhat less than in the Latin American case. Nevertheless distributional questions are germane to the discourse in the present context too. For instance the poor in India are now being asked to pay more for essential imports or to even go without them for a while?, so that the national economy can repay debt, incurred on the purchases of aircraft, among other things it is therefore crucial that even as a part of an adjustment process intertemporal macro economic constraints are respected, distributional concerns are not lost sight of. This can be tackled via a scheme of taxes and subsidies so that the shrinkage in the 'cake' is borne largely by those more likely to have benefited from the external borrowing on at least by the better-off where the beneficiaries cannot so clearly be identified.

The question of the politics of the economies of adjustment has not been addressed. But this is of the essence often so blandly summed-up as political will In the meanwhile economists can help by articulating possibilities. And they should start by pointing out that just as part of the deficit flows from barrels of guns, as it were it ought to be shot down to clear the way for a more meaningful resource allocation. We cannot expect assistance from the political leadership here.

* * * * *

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The aim of the Institute is to contribute to the economic and social development in Tamilnadu and India.

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BULLETIN

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Resource Constraints for Housing in Metropolitan Cities

Some Suggestions on Publication Policy of Universities

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EDITORIAL - SOME HIGHLIGHTS

I. General Economic Scene

State

Planning Commission

As a result of the final discussions between the Chairman of State Planning Commission and the Deputy Chairman of the Union Planning Commission, the state Plan for 1991-92 was fixed at Rs. 1600 crores, as against Rs. 1450 crores for the current year 1990-91. It was agreed that this outlay will require special efforts at additional resource mobilisation in 1991-92. The priorities under that are employment generation, poverty alleviation and the minimum needs programme including supply of drinking water to villages, eradication of illiteracy and rural development. As will be noted later under the national section, there is some uncertainty about the resources that will be available in 1991-92, which will affect the level of the Plan for that year for all states. During January, the State Planning Commission reviewed Part I schemes under education, and science and technology for 1990-91 and finalised them. It also examined in some depth, the rural roads programme and indicated the means of economising on it in order to live within the allocation of Rs. 45 crores available during the VIII Plan for that programme.

Weather and Prices

January was on the whole cool and dry, except for some rains at the start of the month and at the middle in Coimbatore and Thanjavur districts. The meteorological department reports that during the North East monsoon which tapered off in the middle of December, the state received its normal quota of 45 cms against the normal average of 47 cms. The North central districts experienced deficiency—Salem with—60 per cent deficiency, Dharmapuri with -50 per cent, Tiruchirapalli with -52 per cent, North Arcot Ambedkar with -39 per cent, Pasumpon with -31 per cent, Pudukottai -30 per cent, Tiruvannamalai Sambuvarayar -27 per cent and Thanajavur -22 per cent. On the other hand, Kanyakumari had +58 per cent excess, Tirunelveli Kattabomman +24 per cent and Nilgiris +33 per cent-excess rains, as did Madras +225 mm. The effect of this rainfall will be referred to under the state agricultural section. On prices, CSO's monthly abstract of statistics for July 1990 (which is normally about 6 to 7 months behind the month under consideration because of the time taken to collect the data and process it states that the index number of consumer prices for industrial workers in April did not move from its March record at 127 and in May moved by only 2 points to 129 (though it records the food prices moved up by 3 points to 181 cancelled by the 4 point decline in clothing prices at 142), the index number of consumer prices for agricultural labour which as reported in the last issue shot up by 12 points in April rose even higher by 14 points to 745 in May (the puzzling part of the inflation which is also a national phenomena is that at a time of a bumper harvest food prices rising by 16 point to 789 in May) : the consumer price index for urban non manual workers continued to be relatively steady in May being stagnant for Madurai (at the April level), rising by 2 points for Madras, and I point for Coimbatore, Salem and Tiruchirapalli. But the Gulf war which limiting HSD supply restricts the supply of fruits and vegetables resulted in a sharp rise of prices of essential commodities, particularly edible oils, pulses, sugar, potatoes etc by 20 to 25 per cent. This is reported every week from all over the state.

Power

Power in the state in January was normal with the usual ups and downs. The 2 units of Kalpakkam had to be closed and so generation of the thermal plants at Ennore, Tuticorin and Mettur as well as from Neyveli and Ramagundam was stepped up. So too was power generation from the hydel station maintained at 900 MW. The problem here is that the power plants are functioning at the margin of the increasing power demand of the state, so that any shut down as in Kalpakkam throws the system out of gear. There are some bright spots in the state's power scene. Tuticorin in 1990 had a plant load factor of 71.47 per cent. The Ennore plant is to be modernised and a consultant has been employed to improve the thermal efficiency of the system from the very low 30 per cent, power supply will be augmented from a new source-the Narimanam gas station while using 70,000 cubic meters of gas per day will operate 2 five MW units yielding 45.70 million units. This is a start of the diversion of gas to the state's power supply.

At the national level, power supply in January was normal except in Andhra Pradesh where HT users are facing a power cut and Rajasthan which has imposed a 60 per cent power cut on HT users. But the long term power perspectives are bleak. The finances of the sector are in a mess. The State Electricity Boards owe over Rs. 2000 crores, to the NTPC for NHPC and with their accumulated losses to Rs. 2500 crores, the decision made a few months ago to repay these dues from the Union grants to the states has caused such furore on the part of the states, that after paying 25 per cent of the dues, this decision is now reversed. Meanwhile the World Bank has stated that it will not provide loans for power development, if these dues are not cleared. It recently refused to disburse

575 million to NTPC, Farakka III and Vindhyachal transmission unless the SEB dues are collected. The SEBs do not have the money. DVC has stated that it will stop power supply to Bihar and West Bengal unless their dues of Rs. 300 crores are paid. The non payment of dues are resulting in the NTPC, NHPC and DVC recording losses. This scenario also explains the emphasis on throwing open power generation to the private sector, which TN, AP, Karnataka and several states are doing which, as pointed out in the last issue, raises in turn several problems. Also the rapid development of unconventional sources of energy including waver power which is being developed in the Trivandrum coast and the setting up of energy cells in industrial estates should be seen against this background.

Water

Negotiations are still under way with Karnataka for the 15 tmc ft of Cauvery water to save the samba paddy crop in the Thanjavur delta. In exchange Tamil Nadu is being asked to provide Karnataka with electricity. The problem is complicated because of the poor relations between the 2 states, the Tamil Nadu request being set at 15 mcft the for power exchange. It is to be hoped that water - atleast 5 tmcft will flow to the fields by the end of January. On the Telugu Ganga Water project for Madras city (15 tmcft from Krishna) being planned to be available in 1993, there is the problem of the shortage of civil engineers and the lack of HSD in the wake of the Gulf crisis holding up the project. The first should be solved by allocating the needed engineers to this project : the second will involve its being given a priority by the 2 state governments. As noted in the last issue, the drinking water situation in Madras for this year is in hand. The combined storage in the 3 reservoirs-Red Hills, Cholavaram and Poondi is 3857 mcft as at January 1 against the maximum of 5369 mcft on January 1, 1986.

Assembly decisions

The Governor in his address stated that the Rs. 310 crore World Bank funded agricultural project-which strengthens seed production facilities, water shed development over 1.35 lakh acres, forestry over 90,000 acres in the Western Ghats, improved veterinary services for all the state, rural water supply schemes in 4 districts, and 800 kms of rural roads in 4 districts. Another World Bank aided Rs. 350 crores nutrition project is alongside of the nutritious meal scheme and maternal and child health centres inhabitations with 500 population. Over 10323 habitations have been provided with safe drinking water by June 1990 and by 1991 the remaining 5961 habitations are to be coverd. Accelerated slum improvements covering 12,000 tenements, further extension of the loan waiver scheme are planned. The legislation approved supplementary estimates of Rs. 74.94 crores. It also approved 7 bills on general sales tax, entertainment tax, district municipalties, (three bills), panchayats and panchayat councils (2 bills).

Urban development

The finances of the Madras Corporation which are to cater to the needs of 50 lakh people are totally inadequate and its inadequate budget has to be supplemented by ad hoc grants from the

State government. As pointed out in earlier issues, the Madras Corporation is the poorest body compared to Bombay, Delhi and Calcutta corporations. So the Corporation has submitted to the government proposals to increase its income by Rs. 50 crores. Revision of property tax which will raise its yield from Rs. 25 to 30 crores, the tax rates have not been revised for 13 years and the absence of an elected body since 1973 further limits the corporations power. It should also improve its tax collection machinery and procedures which suffer a lot of leakage. The surcharge on sales tax is being increased from 10 to 15 per cent and 80 per cent of the increase is to be paid to the Corporation. It also has been asking for a share in the motor vehicle tax to which it is entitled. All this is still inadequate and the citizens should gird themselves to finance the corporation more adequately, even at 1/3 the rate of the Bombay Corporation, whose annual mean income/expenditure is Rs. 700 crores.

National

Plan

The plan and planning is in some confusion and faces some uncertainties. It was originally planned to conduct the review of the VIII Plan proposals of the Union ministries and state governments and the 1991-92 plan together (referred to in the January issue), but last month it was decided to take up only the 1991-92 Annual Plan because though the financial outlay of the VIII Plan was seemingly established, with the Gulf crisis and various uncertainties seen in the fast rising fiscal deficit, the balance of payments problem, inflation etc. the resource availability for the VIII Plan becomes a question mark.

As for the Annual 1991-92 Plan of the states, the Commission completed the review by the third week of January and announced that the outlay for the 5 states amounted to Rs. 27,668.32 crores which was an 18 per cent increase over the current year's Rs. 23,462 crores. But soon after this work was completed, it is reported that the Planning Commission wants a 20 per cent cut in the outlay that has been fixed because next year's resources are quite hazy and uncertain and at the present juncture it feels that such a level of plan outlay may involve heavy deficit financing. It is to be regretted, that this exercise of the resources likely to be available for 1991-92 was not first established before the review of the state plans, as a 20 per cent cut is quite heavy and will involve redrawing the priorities. For a state like Tamil Nadu, it will involve a reduction of Rs. 320 crores which will affect the proposal programmes. In defence, it is true that the Gulf war and its effects on the economy are unfolding on a daily basis, and so there is an element of uncertainty. But it also shows a lack of forecasting and not setting an upper and lower limit for each state plan which could have been done. Now there are 2 consequences to be faced. First, the precise plan outlay for 1991-92 should be finalised now by the end of January, because in February both the Union budget and some state budgets will have to be presented to the legislative bodies. Second, the silence on the eighth plan is somewhat ominous. Does it mean that in spite of government protestations, there will be a plan holiday and that we will have to have to do with a series of Annual Plans. The major thrust are clear : they have to be a) strengthening the infrastructural facilities, b) achieving a faster generation of employment and c) increasing rural investment and d) alleviating poverty. But there will have to be some slowing, if not abandonment of certain "populist" schemes and some modification of even those announced and launched.

Prices

Inflation on a point to point basis rose by 1.1 point during December, the wholesale price index standing at 184 for the week ended December 29. This means first on a 12 month basis, inflation was 11.72 per cent on December 29 (on December 22 it was 11.92 per cent) and on a 9 month basis, April-December it was 9.3 per cent, the highest in the 80s. Second, the price rise was caused by the rise in prices of essential commodities propelled by the hikes in petroleum products and food articles, caused by the government's fuel surcharge and the rise in procurement prices. The inflation hits the poorer sections with the prices of the commodities consumed by them going up — foodgrains by 10 per cent, edible oils by 28 per cent, tea by 23 per cent, food products by 12 per cent and mineral oils by 31 percent, with a much slower increase in manufactured prices at 9.5 per cent. The inflation has an anti poor start. Third, the inflation rate has acted contrary to the normal cycle. Usually it touches the high point around August/September and a low point in December. This year the downward movement has not happened, rather it has been a continuously rising curve and if it continues into the next calender year, the economy is in serious trouble. The Minister of Finance has announced that increased money supply has caused inflation, he plans to restrict money supply this year to 15.5 per cent and next year to 14 per cent.

Budget, Stock Exchange and Loans

One related phenomenon is the large fiscal deficit of Rs. 13000 crores at the end of November reported by the government to Parliament, against the previous year's Rs. 13082 crores. The deficit in the budget for 1990-91 when presented was Rs. 7200 crores, after the first 4 months, the budget deficit reported by the previous finance minister was Rs. 8931 crores and now after the second 4 months it stand as Rs. 13000 crores. The reason for this deficit is due to lower tax collection — corporation tax 16.44 per cent of estimates for April-November 1990 compared to 25.93 per cent for that period in 1989, income tax 41.16 per cent against 54.15 per cent, customs 58.10 per cent against 62.6 per cent, and excise 59.14 per cent against 60.27 per cent. On the other hand market borrowing was 70.80 per cent of the budget estimates against 42.4 per cent and net external assistance 27.80 per cent against 24.30 per cent. The second reason for the deficit is expenditures out running the budget estimates and on this he particularly highlighted the under estimates of the farm loan scheme (where against the budget provision of Rs. 1000 crores, Rs. 4000 crores has been spent), the increased burden of fertiliser subsidies, the case of rehabilitation of Indian citizens from Kuwait, the squeeze on non oil imports and the Gulf crisis involving no contribution from the Oil Coordination Committee account. Under these conditions, the government has taken a series of steps to implement the austerity measures referred to in the last issue. These measures are estimated to save Rs. 1650 crores, mainly through the 10 per cent cut in expenditures. Second, the various hikes in taxes referred to in the last issue would bring in an additional revenue of Rs. 1200 crores and to that extent keep down the deficit. Third, various measures are being taken through travel restrictions, cancelling of seminars and conferences, to check the fuel drain. This includes cut in public transport—railways and state transportation. Fourth, Air India, Indian Airlines and Vayudoot are required to cut their aviation turbine fuel consumption by 25 per cent. Fifth, the Planning Commission wants the power subsidy to be cut, (involving stopping the free supply of power to agriculture and all subsidised supply to domestic consumers). Expenditure in every ministry is being monitored from the beginning of 1990-91 and no excess spending of alcohol. Further, the food subsidy will be reduced by making PDS available only to the poor in rural areas and the slum dwellers in cities. This will save Rs. 1500 crores. Again it is proposed to refer some 40 sick public sector units tor BIFR and if they are ordered closed, there will be a saving of Rs. 2000 crores. On this basis it is expected that the deficit this year will be Rs. 11,000 crores, falling from 8.9 to 8.3 per cent of GDP. The government announced in January 4 loans aggregating Rs. 1500 crores, with a net amount of Rs. 1362.49 crores (Rs. 137.52 crores are for redemption of loans). January has been a month when the stock exchanges have faced some serious disorder. In a bid to stabilise the market, the governing board of the Bombay Stock Exchange has imposed trading restrictions to prevent a precipitious fall in prices. Further over a score of stock broking firms across the country are in financial difficulties as their investor clients have deserted them without clearing their payments. Delhi also introduced several measures to check a further fall in share values. After the outbreak of the Gulf war, except the Madras Stock Exchange, all other exchanges were closed for varying period of 7—10 days. It is only in February that the final effect of the Gulf crisis on the stock exchanges can be measured.

The Economy

The economy shows positive signs in the recent past but also negative signals for the present and immediate future. Looking at 1990-91, it is noticed that despite serious fiscal imbalances and high deficit financing, increasingly adverse balance of payment, rising prices, political instability and the Gulf crisis, the positive factor of a good monsoon resulting in buoyant agricultural production, with foodgrains expected to increase by 5.2 per cent over 1989-90 and agricultural index ising by 3.8 per cent, hydel power exceeding the target, while thermal and nuclear are 4 per cent behind their target : coal is expected to increase by 4.6 per cent ; crude production because of the Assam blockade being 2.4 million tonnes short of the target ; the search by government to transfer some public sector units which are not doing well to the private sector ; the 41 major industrial group continuing their 1989-90 record of profitability ; overall industrial growth which was 11.7 per cent in the first half of the year, 1990-91 expected to be 7.7 per cent for the year ; the trade deficit will be higher than 1988-89's Rs. 14000 crores and balance on current account higher than that year's deficit of Rs. 10,400 crores. On balance, the year is expected to record a 5 per cent growth. As againts this optimistic projection, the short term trends are not satisfactory—the falling government revenues, the slow down in export growth, the inflationary situation stoked by primary good prices while manufactures prices are fairly stable, the slow down of the railways progress due to shortage of resources, the non development of backward regions, the 8 million tonnes short fall in revenue earning traffic and the slow pace of modernisation and upgrading in the system. There are other symptoms of strains in the economy, such as the Comptroller and Auditor General in the Annual Report pointing to the lack of effective monitoring of RELEGP, JRY and the Indira Awas Yojana resulting in slow down of the programme and some avoidable wastages and leakages and more serious, the lack of an appropriate technique to identify rural landless labour. There are also some short term positive signs such as the small 5 per cent growth in the infrastructure sector from November covering coal (in December +20.4 million tonnes), electricity (+7.8 per cent), crude declined less sharply -0.7) per cent), cement recovering (+1.9 per cent), steel (+8 lakh tonnes). Whether this improvement will continue and increase sharply in the last quarter of 1990-91 remains to be seen. Further, the drive against hoarding and black marketing may be given some teeth at the present time because consumers are taking a hand in identifying hoarders and black marketeers as in the case of edible oils where there are shortages along with the absence of imports (not only to save foreign exchange but even more to give the oil seed growers remunerative prices), is leading both to panic buying and some dehoarding. Two other long term trends should be noted. One is that the RBI 1981-82 survey shows that of the total debt owed by rural households, credit institutions share which was 7.2 per cent in 1951 and 17.3 per cent in 1961 has increased to 61.2 per cent in 1981. Within the increase in rural branch banking this trend of loosening the grip of the money lender from over 92 per cent in 1951 to 38 per cent in 1981 should be further strengthened. It is rightly pointed out that for the future the poor need not only be given more credit aid but should be made more credit worthy. A second issue brought out by a World Bank study of developing countries is that a successful liberalisation policy requires (a rapid dismantling of quantitative restrictions, b) a substantial real dismantling of the currency and c) a stable macro economic environment. This 30 country study on trade reform has its usual (world bank) biases especially on the first two components, but the need for macro economic stability and the reform undertaken having to be "bold one should start with a bang" seems a counter to the slow moving implementation on agreed reform measures. And what is true is that any liberalisation reform measure needs to be part of a broader macro economic stability package-which is a good point of transition to looking at the state of our industry.

Industry

The country's industrial scene presents a variegated picture in terms of its growth rate on which estimates for the year were just referred to. CSO quick estimate on the 1980-81 base for the first seven months, April to October, industrial growth was 10.8 per cent, with manufactures at a high 12.6 per cent, electricity at 7.3 per cent and mining 3.2 per cent. The manufacturing sector will not be able to keep up this high growth rate for the balance of this year. On the positive side among the industrial groups doing well are the jute industry which, because of the Gulf crisis and the shooting up of the price of oil, finds its synthetic substitutes being priced out of the market. This together with the environmental plus point of the jute industry compared to the crude industry and its products open up a good future for the industry. The steel industry which as noted earlier is slowly improving will also further expand when its opening to the private sector referred to in the last issue takes effect. If the advice of the Economic Advisory Committees on providing fiscal incentives to increased investment and components expansion and the lowering of the present high tax rates on processed fruits and vegetables is followed by the government, the agro processing industry would receive a boost, and the present ridiculous situation under which canned fruits and vegetables cost more than superior better tasting fresh ones could be ended. Because of the fiscal functioning, the tax element as a ratio of production cost of canned fruits is 105.9 per cent instead being as in other countries less than 30 per cent. The effect on demand, capacity, quality follow from this absurdity. Similarly the electronics groups is poised to expand fast for which its technological and manufacturing base needs upgradation and the indigenisation process in the components sector needs acceleration. In this context the international review of Indian industry by ADB & ESCAP commend the progress and performance in recent years which are attributed to the larger role given to the private sector alongwith more liberal imports. This analysis is open to question as there is no real perceptible increase in the private sector's performance—except the decision to open up some areas — like steel and power to it which have yet to be translated into procedures and decisions and the import liberalisation referred to being both short lived and of little benefit to the majority of consumers. Another industrial group which raises some queries is fertilisers when there are three issues facing the industry and economy. First, the government's decision to cut DAP imports instead of reducing the import of phosphatic acid and ammonia as a means of saving on foreign exchange in affecting some 10 domestic phosphatic units which have been built up over the years. This therefore needs a review by the government. Second, the government's decision to modify the fertiliser allocation norms under the Essential Commodities Act (ECA) is sound because that is the only way in which a true picture of the needed inventory can be arrived at, particularly in surplus years. Instead of fixing a percentage of the inventories and current production to determine the allocation under ECA, the entire production is being allocated and the inventory allocated subsequently. Third and most important the fertiliser subsidy is to be reduced, and as such increases are usually passed on to the consumers by the farmers, fertiliser prices are being increased by 15 per cent to 25 per cent. This will be paid by the large and well to do farmers who use the fertilisers and in any case the farmer is not absorbing it but passing it on to the consumer. This will further augment the current inflationary impact on goodgrains prices — which should be so regulated as not to affect the poor man's foodgrains. Finally the Estimate Committee of Parliament has suggested a redefining of the role of BIFR to deal with growing industrial

sickness, on which it quotes in 1989-90 Economic Survey as reporting 2.06 lakh units being sick, involving Rs. 6,256.4 crores as outstanding. This include 45 heavy engineering units in the private sector and 2 in the government sector. This raises 3 issues. First, BIFR which comes into the picture very late, after the net worth of the unit is exhausted, should be brought in earlier when the first whiff of sickness in a unit is known and that is known only to the financial institutes. What is needed is to ensure that financial institutions promptly inform BIFR which can be authorised to take suo moto action. Second, the establishment of the revival package involves endless hearing, consultation, negotiation, and final approval of the State government. As the case of Standard Motors of Tamil Nadu analysed in the last 2 issues shows, this prolonged process makes the cure and rehabilitation too little and too late. BIFR must be authorised to act on its policy package at an appropriate early date. Third, and as a consequence, there must be provision on the Act for closing down-the exit of terminally sick units. In fact Act (Sick Industrial Companies (special provision Act) seems designed to avert closures through mergers. The Act must provide for sick units to die. There is no alternative to it.

Public Sector Enterprises

In January, government on the one hand limited the foreign exchange expenditures of the public sector units to the approved levels for the current year and directed that should be the ceiling for 1991-92. This brings the public sector in line with restrictions imposed on the private sector. On the other hand, their extra budgetary resources which include external commercial borrowings have been increased by 125 per cent as far as the target is concerned. There should be careful scrutiny that this leeway is used only for those projects which earn foreign exchange in the future. The Department of Heavy Industry continues to give the quite unless information that the 33 units under it increased their production in November by 17 per cent, though the fact that this will not help it attain the cumulative target is not brought out. This kind of misleading information should be suppressed. The World Bank recommends that priority lending by public sector banks should be terminated in order to make bank operations profitable. There are other ways like stopping lending to favoured customers, leakages etc. which can improve bank's profits.

National Production Front

Steel

The comparative poor performance of the steel industry in comparison with the Chinese industry which started at the same low level as India has been noted in earlier issues. Now there is a new urgency, as the oil crisis, which is a long term phenomenon also noted in the last issue, will lead to a decline in steel production world wide, with the demand not shrinking. The Indian gap between steel availability and demand, which was analysed in earlier issues (See Vol XX p413) now must be faced head on. For this, the technical health of the SAIL plants, Bokaro, Rourkela, Bhilai and Durgapur must be restored and enhanced. The modernisation of the public sector plants is the more urgent, as the private sector's I million steel plants applications are pouring in. By mid January 50 applications to set up 7 million tonnes had been received. Even if 10 of them are selected, after a very detailed and careful selection process (to avoid a repeat of the 1970s experience of the mad scramble and the following crash) a) some Rs. 20,000 crores will be invested, b) of the 27 to 30 million tonnes of steel estimated to be needed at the end of the VIII Plan, these units will contribute 8 to 9 million tonnes, c) the capital market and banks will have to accomodate their demand and d) the ills of the public sector plants-price controls, outdated equipment, excess labour force will not face these new units. Also the case for modernation of SAIL plants receives new urgency. This also means that steel output will by the end of the VIII Plan be doubled. Hence the slow pace at which SAIL plants are increasing their production (3 to 4 per cent in December 1990) also needs to be stepped up SAIL in a memo to government points out that the existing steel pricing and distribution controls are based on steel being regarded as a bulk commodity discriminated against the main steel producers — SAIL and TISCO.

Crude

Crude oil which has become the key factor in the economy presents in January positive and negative features. First on the positive side, available data shows for the first time a decline in the consumption of petroleum products to 1.5 per cent in the period July-November 1990 against 9.4 per cent in July-November 1989. The June curbs on petroleum consumption (See Vol XX p36), the 25 per cent Gulf surcharge have had the effect of maintaining petrol consumption at the same level unlike the 16.5 per cent increase last year, diesel consumption growth falling from last year's 14.4 per cent to 1.6 per cent and kerosene at 4 per cent against last year's 7 per cent. Alternative crude supply has been negotiated net from Iran (2.5 million tonnes) and Malaysia (1 million tonne). The negative elements are several. Crude production for the year is likely to fall by 2.174 million tonnes due to bandhs and agitations in Assam and Nagaland and the 3 days strike by officers, (at a time when the country can least afford it), along with closing down of some wells in Gujarat and Bombay High because of high gas oil ratios. (ONGC on the other hand reports at January end that it has struck gas in 4 structures in Bombay High). Second, the import bill for petroleum products for the year is likely to be Rs. 10,000 crores in place of the expected Rs. 6400 crores. Third, the future is even more daunting. The demand for petroleum products is estimated to increase from 57 million tonnes in 1989-90 to 67 million tonnes in 1994-95 and 101.3 million tonnes in 1999-2000 Indigenous production which met 67 per cent of demand in 1984-85 fell to 57 per cent in 1989-90 and will fall further in VIII and IX Plan. But there are conservation and saving possibilities which should now be put into effect. The Kapoor Committee on energy suggested that Rs. 3000 crores invested in energy will save Rs. 1925 crores annually : a World Bank survey of 8 industries shows that 9 to 14 million tonnes per year can be saved through the investment of Rs 1400-2000 crores. Energy conservation is possible and cheap and there is no escape from it. The International Energy Agency states that its 21 member council has decided to release 2.5 million barrels of crude every day from government stocks to keep crude prices down. This would help crude import and countries like India.

Coal

The coal scene is equally sombre. On the one hand coal production is declining as noted in the last issue; while industry estimates are that by 2004-2005 million tonnes of coal will be needed. More immediately the government has drawn up a 3 point emergency plan for coal to make up for the limited supply of petroleum products — increased supply of coking coal to steel plants (4 5 million tonnes), increased supply of power grade coal to thermal plants (160 million tonnes) and soft coke to domestic consumers. Is there any one of this contradictory scenario of falling production and increasing demand which the present energy scene demands? Two short term actions may be explored. One is to raise the price of coal to cover its cost of production. True there is inefficiency in man hours and overmanning, true there is a coal mafia, but the price must cover cost. Even when the last price increase in 1984 was made, it did not take into account the new wage element. It is true that the raising of the price of coal will send up the cost of power, railways etc. but we are doing this raising the price of petroleum products, and really the power boards must break out of their low price syndrome and charge power rates which cover their costs. A second short term measure is, till we can afford to update our machinery for underground mines, there should be rapid increase for the present in open cast mining which also will be a saving for the coal industry.

Non ferrous

We are short of non ferrous metals and are importing them at a heavy cost. Hence the flury of activity to increase non ferrous production makes sense — NALCO's Rs. 2200 crores plan to expand its capacity by 50 per cent ; Hindustan Zinc to invest Rs. 1000 crores on a number of new schemes like the completion of Rampura Agucha mill, on technology upgradation and on exploration and development of new deposits and modernising its lead plant. All this is needed but the question is whether this is the time, when the resources are unfavourable to formulate the VIII Plan, to make these investments. The possibilities of foreign borrowing are not bright. Last year IOC's attempt to raise a 3 month bridging loan at 50 basis point over LIBOR was unsuccessful. So too was the rejection by a consortium of Japanese Bank of ONGC loan request for $250 million. As both the national and international loan markets have become tighter it may be wise to postpone these investments.

Agricultural Production

On the food grains front, there is adequacy with current buffer stock of rice and wheat and higher procurement expected after the kharif crop. But the supply and prices of edible oils and pulses are at a danger point and how the demand for these can be met is an urgent problem. Even with regard to foodgrains, their stock is adequate, but their transport to the areas which need them like Kerala, Tamil Nadu pose a problem if rail services are curtailed due to diesel shortage. This raises the question whether the phasing out of steam engines should be delayed for the present. The government has announced that farm prices will be fixed twice a year—once before sowing and the second after harvest. While the objective of this double pricing may be laudable, that is to give farmers remunerative prices, their modalities, their effect on consumer prices etc. need further investigation.

Exports and Balance of Payments

The exports and balance of payments situation in January seem to be worsening. For the first 8 months, April November, the trade deficit has increased by Rs. 2600 crores to reach Rs. 7193 crores. These are the DGCI & S figures, the other imports by the defence ministry which do not enter this data will further push up the deficit. The export growth rate during this period is 20.4 per cent and import growth 28.5 per cent. This means that there is no hope of reaching the export target of Rs 3600 crores for this year and to this the worsening balance of payments due to the Gulf war should be taken into account. In November alone imports shot up by 50.4 par cent (Rs. 4404-crores) largely due to the increase in world oil prices, against which the government took some measures like pruning in OGL list (16 items have been taken off the list) and reducing import approvals by 35.7 per cent in April-October 1990 though imports could not really be cut. The possibility of setting up a super rep to manage the country's day to day trade which would result in exporters being issued import licenses equal to a certain proportion of their export has been suggested The licenses will be freely transferable. The super rep will cover all goods on OGL, the restricted list and the limited permissable list. This is too complex a system to operate so late in the day. On individual items, synthetic textile exports rose by 6 per cent to Rs. 401 88 crores during April-November 1990; cotton textile exports which are Rs 1722.68 crores during January-November 1990 will exceed Rs 1800 crores in the calendar year. Engineering exports have increased to Rs. 2005 crores (39 per cent) during April-December 1990. To encourage exports the value of export licenses have been increased by 15 per cent, permit holders are allowed Rs. 10 lakhs for travelling, and CCS have been granted to handicrafts made from wrought iron, STET. The failure of GATT and the deadlock over MFL may hamper garment exports—especially from the small scale sector which accounts for 75 to 80 per cent of the exports with their low overhead, rapid turnover and high profits.

Aid and loans

The loans recorded in January are seven Japanese loans totalling 129,206 billion yen ($1 billion) for power, afforestation, health technology, small scale industry and housing for low income groups. Japan has also made a grant of $20,391 for improvement of rural medical service in Haryana and HP. As noted earlier, the World Bank made a loan of Rs. 310 for agricultural development in Tamil Nadu. The commonwealth bank of Australia is extending a line of credit of $50 million to SAIL for importing coking coal from Australia. The most serious issue in this area is the report to Parliament by government that out of $18 billion of World Bank aid, $11 billion remain unutilised as on 30 November 1990 and that the World Bank has suspended disbursal of $286 million committed already to 3 major irrigation projects in Maharastra, Haryana, MP. At the present state of an almost empty foreign exchange reserve situation, this delayed use of credit is a criminal negligence due to cost over runs and delays in project. This is inexcusable. To say that counterparts are not available is incredible when we have found Rs 4000 crores to write off farm loans and were planning a massive employment guarantee programme. Our priorities are not right. The World Bank has offered $40 million for AP's cyclone emergency reconstruction project. It is also making a loan of $156 million for 2 inland fisheries projects. IDBI has been authorised to raise yen 30 billion from the Japanese market in co-operation with Japanese banks.

International

IMF

India's foreign exchange reserves was Rs. 1877 crores on January 4, which will meet 13 days imports. November's trade deficit was Rs. 1859 and so only a month's cushion was available. On January 19, India after prolonged negotiation concluded an agreement with IMF for 2 loans amounting to $1786 million (Rs. 3275 crores), $1009 million from CCFF to meet the oil import bill and $777 million as a first credit tranch on a stand by arrangement. It is important that the government and country realise that this is just a break which can cover our imports for a month and a half. We need to continue our belt tightening and fiscal austerity. One good feature is that we as a country took all the necessary austerity measure — to control inflation, to increase taxes, to reduce government expenditure and the fiscal deficit, to improve trade balance etc. and so there was at this stage no oil needs for conditionalities which will come up when the second and third stand by arrangements now termed Enhanced Structural Adjustment Facilities (ESAF) credit under EFF come up as it will in the coming financial year.

World Bank

World Bank has laid down 3 conditionalities to grant a $400 million loan as part of the *ICCI's* public issue. The conditionalities are (a) decrease in government control, some privatisation in this term lending bank: (b) three term lending institutions all free to lend at any interest rates they choose to any company or project and (c) the present consortium for lending be ended,—the three being *ICCI*, IDBI and ICICI. They are to stop hedging risks and each bank accept complete exposure for any project it has approved. It is a matter of regret that these conditions have been imposed because the World Bank found that the banks had suppressed the truth about the consortium and its portfolio. The World Bank has accepted their position that government controls are responsible for their poor administration and bad debts. This is false but on this false premise the World Bank has established the 3 conditions which will be self defeating. The World Bank reports, lending $98.8 billion as at the end of 1990 to the third world out of a total lending limit of 150.3 billion. It made a profit of $797 million, borrowed $6.3 billion and loaned $5.6 billion in 1990. The World Bank in a world economic survey states that (a) the gap between developing and industrial countries could widen in the 90s unless many developing countries integrate their economies with the international economy: b) countries restructuring their economies will increase their per capita incomes, some developing countries will remain weak because of high interest rates in industrial countries and — heavy external debts: c) the decline will be due to their heavy reliance on commodity exports when commodities share in world trade and output has declined: (b) the forecast is for world economic growth to be rapid in 90s if there are no serious policy mistakes or shocks.

GATT

There is some talk of a break through in the continuing discussion of the Uruguay round as a result of the EC agreeing to reduce their Agricultural subsidies. Whatever may be the truth of this and whatever may be the final outcome, the marginalisation of the developing countries in this round on every issue of concern to them, liberalisation of the textile trade, capital gains that would follow from an agreement on services was complete and will not be changed by any outcome of the continuing negotiation between the industrial countries. The Uruguay round is central to the concerns of the third world but they will continue to be faced by the protectionist policies of the industrial countries. The doctrine of liberalisation which is being diffused to them seems to have no application to the industrial countries and their trade relation with the developing countries.

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II. Agricultural Development in Tamil Nadu

Paddy and other crops

The samba harvest is now on, the early sown varieties are being harvested. Farmers who went in for late sowing are awaiting Mettur water. Mettur by the third week of January had reached dead storage level of 5 tmcft and so the farmers realise that their crops can be saved either if there is rain or Karnataka responds to the request from Tamil Nadu government and releases Kabini waters. Tamil Nadu has asked for 15 tmcft and various channels are being used to press the request-direct government to government, the Prime Minister's intervention, and that of the President of Congress I. Even if 5tmcft of water is released by Karnataka, the farmers who face a withering crop will be helped, provided it is released from the nearest reservoir to Mettur which is Kabini and released in a day or two Meanwhile there have been some rains in the delta area which has helped the crops. But in both Thanjavur and Tirunelveli districts, the samba and thalady crops are on the point of withering and the farmers are praying that Karnataka will release the waters. The area under samba this year is 1 lakh hectares less at 17.02 lakh hectares than last year. The coming Navarai season will add a further 2 to 2.5 lakh hectares, making a total of 20 lakh hectares. But the yield that the farmers gets from the crops that he has grown over this area will really depend on water being made available to him. A basic question needs to be faced by the farmers in Thanjavur and Tirunelveli districts and the government-and that is if the governments claim before the water resources tribunal to go back to the 1927 agreement on the sharing of the cauvery waters is turned down by the Tribunal, and even if the decision favour Tamil Nadu, Karnataka can go on endless appeals to block its enforcement. Should not the Thanjavur farmer change his cropping pattern and the crops to be grown taking into account the actual water that will be available from the south west and north east monsoon, with no reliance on Mettur ? This situation when year after year, the crops are at the mercy of the Karnataka government's decision and charity should be ended and in place of the water demanding paddy, where there were no filter points, more reliance on dry crops and short duration paddy and coconut plantation which can be grown with rain water should be his approach. In other words, the time has come for the Thanjavur and Tiruchi farmer to be trained to take account of the fact that he no longer can rely on Mettur water. Over the rest of Tamil Nadu, the farmer in 10 districts are doing well with their reservoirs, tanks and wells having adequate water, while farmers in 9 districts which have had scanty rains — referred to earlier had to reduce the area under paddy. The worst hit were the farmers in Salem and Coimbatore districts who have been able to bring only half the normal area under paddy cultivation. This situation has also raleased fertilisers from Salem, Periyar and Coimbatore districts to Madurai and other southern districts for use by their farmers. One disturbing signal is that when there is failure of rains in rainfed areas, even a dry crop like tapioca is affected. In Salem district which has experienced scanty rains, while farmers have received their normal price for the tapioca that they have grown, the manufacturers find a serious decline in the starch recovery. Here the farmers need to be helped to grow varieties which are more resistent to dry weather.

Research results

Of the 32 research reports recorded in January, attention is drawn to 6 which have immediate interest to the farmer and which can be transferred to the farm or dairy. Two reports from Bhubaneswar's UAT and Kerala's rice research station on means of controlling serious spreading rice pests needs to be passed on to the farmers. One is to eliminate rice thrips which are increasing in paddy nurseries and directly sown paddy through changing the sowing season and flooding the field to kill the thrips and the other is the means of avoiding iron toxity in paddy plants caused by overdose of iron beyond 300 ppm. Another research result from TNAU which Nilgiris farmers can use immediately is the problem of the potato tubes moth which destroys 80 per cent of the potato crop but which can be eliminated by use of pheromera septrapo which have been just developed on the basis of their import from Peru and multiplied and adopted to the Nilgiris. A third research report from ARS Bhavanisagar and TNAU Coimbatore can be transferred to the cotton farmer in Coimbatore district to develop inter-cropping of green gram with his cotton, which doubles the return on each rupee invested in cotton. Fourth, two reports on weed management and control from AICARP, Hyderabad and TNAU, Madras are also of immediate interest to farmers particularly in the dry farm regions where they face millet losses from weeds ranging from 10-27 per cent and where the various control steps for a) bajra, b) ragi, c) cow peas and d) minor millets are setforth, concentrating on inter-culture combined with manual weeding Fifth and sixth, the results of the TN veterinary and animal science research on means of diagnosing and curing quail disease in poultry that our poultry farmers are facing and the demonstration of the Namakkal Institute on dry cow management to help foetus development and care and the Srikakulam prescription on combating and curing skin inflamation, called dermatitis in animals, can and should be made available to our dairy farmers.

Horticulture Estates and Dairy Development

Earlier reference was made to importance of processed fruits and the leeway to be made up by the country in this fast growing farming area. Infact the state's vast horticultural potential has not even begun to be tapped, in-part because of the absence for a domestic demand for horticultural products. The average meal at any time, lunch, dinner or breakfast, in the state does not include any fruit except the banana. There is also a vast foreign market for horticultural products which can increase the country's foreign exchange earnings. In light of all this, the proposal to establish small holders Industrial Estates during the current plan should be put into effect immediately and expanded over the plan period. The estates should function in an integrated manner, dealing with production, processing and marketing of all fruits and horticultural products. Under Operation Flood III, dairies are being set up in Salem, Tiruchi, South Arcot, Dharmapuri, Madurai, North Arcot and Periyar districts and in south Madras for a 4 lakh litre capacity dairy and the expansion of Ambattur dairy from 3 lakh litres to 4 lakh litres. Not only is there a large allocation of Rs. 52.79 crores for these 8 dairies, more important they provide the infrastructure for the planned growth of animal husbandry and for processing of the milk delivered daily by farmers to the dairies. which have so far not been accepted because of lack of processing facilities This also is part of the income generating programme for the rural under employed.

Plantation crops

The plantation crops reviewed in the last issue continue to present certain problems which are related to the difficult year, 1991, ahead. The various scientific projection, predictions and extrapolations have an added element of uncertainty brought on by the Gulf conflict, whose duration, it is difficult to hazard at this point. Starting this brief review with *tea*, the perspective for production this year 1991 are bright at 735 million kg (550-570 million kgs from the North and 175 million kg from the South) compared to 715 million kgs in 1990 (532 million kg from the North and 170 million kg from the South). Second, the bank credit for tea for 1991 has been fixed at Rs. 350 crores compared to Rs. 222 crores in 1990, the reasons for this rather large jump being increased cost of inputs that the tea plantations face. Third, on exports 1990 saw a decline to 195 million kg in volume terms being the lowest in the last 5 years but earned Rs. 1000 crores for the first time due to the average unit cost rising to Rs. 50 pe kg. For 1991 exports could go back to 200 to 210 million kg (the level or the late 80s) with corresponding rise in earned income. In this connection, there is still a debate on whether India should import tea for reexporting it, which makes no sense and could hurt the domestic industry. Finally on pricesf while there is general inflation in the country, it is hoped that the domestic price of tea will not rise further, which assumes that the cost inputs will not rise; this is already being falsified by the rise in the price of fertilisers. Turning next to *coffee* the 1990-91 crop is placed at 175,000 tonnes compared to 117,800 tonnes received in the pool in 1989-90. On exports, in 1990-91 it woufd be I lakh tonnes

against 1.32 lakh tonnes in 1989-90 when the carryover stock of 44,500 tonnes made a total of 162,000 tonnes. Exports earnings in 1990-91 will be Rs. 280 crores compared to Rs 360 crores in 1989-90, the fall being due to decrease in value of export. On prices; domestic prices will be at about the export prices, with consumption stagnant at 60,000 tonnes but with new coffee brands-instant, cauvery entering the market in a big way. Finally the Planters Associations are continuing their campaign against the system of pooling by the Coffee Board and want to market their produce themselves through co-operatives or in the open market. The Coffee Board has put out a stout defence of its procedures, of paying the growers a fair price, of earning 7 REP licences, of a streamlined adminstration and regular audit of stocks and finances. There is a need to improve the return on coffee to the growers but this cannot be done at the cost of consumers by increasing the price. MRP is being increased from time to time but this is too little to make any difference to the grower's return. The only real way to increase their return is to lower the cost of production of the crop which will make coffee growing viable. Given the stagnant level of domestic consumption and uncertain export market, this may involve shifting from the coffee to other crops. At bottom the Planters Association complaint arises from their perception of the inadequate return that they receive, on the investment of their time and money. With regard to rubber, on the production side in 1990-91 the estimate is 335,000 tonnes, against 297,300 in 1989-90 and a forecast of 360,000 in 1991-92. Consumption has been placed in 1990-91 at 370,000 calling for an import of 35,000 tonnes. A second issue is the price, which growers wanted at Rs. 30,000 a tonne, and the All India Rubber Industries Association (AIRIA) wanted at 19,000 a tonne. The government fixed the price at Rs. 21,450. This raises once more the question of the rubber buffer introduced in 1986 in order to release rubber when price went above the official level and procuring it when the price fell below it. Due to the interference of growers and politicians, the scheme was abandoned in 1988 without giving it a fair trial. Now the need to revive the buffer stock is urgent. And this is particularly so, as with the Gulf war and the rise in the price of crude and its products, the cost of synthetic rubber is rising fast. This means that rubber prices-both for natural and synthetic rubber-will be rising. In this situation apart from reviving the buffer, there is need for the AIRIA to take a hand in developing rubber plantations as rubber users in the US, UK and Germany do. Second, for producing styrane butadiene rubber, besides the crude oil feed stock industrial alcohol should be used. As crude oil prices are rising and butadiene produced with it is becoming scarce, industrial alcohol should be used. Here India is on strong grounds. As the largest producer of sugarcane, we have a large supply of industrial alcohol which should be increasingly used for production of butadiene. The status of *cardamom* is the same as that set forth in the last issue. In 1990-91, 4050 tonnes is estimated as output and the same production is forecast for 1990-92. Of this 4000 tonnes are consumed within the country. In 1990-91 250 tonnes are expected to be exported earning Rs. 7.5 crores, compared to 171 tonnes earning Rs. 319 crores in 1989-90. In view of the high cost of production and the Gautemala competition, the major part of the production will continue to be consumed internally. *Pepper* in 1991 is estimated at 52,000 tonnes against 65,000 tonnes in 1990. Exports are expected at 38,000 tonnes but it will fetch a lower return because of the sharp fall in international prices. The plantation industry thus faces 1991 with its many problems, whose effects will depend on weather and official policy or lack of policy.

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III. Industrial Development in Tamil Nadu

The trend of industrialisation in the state in January carried many more plus points rather than minus points. To start with the government set up an *industrial clearance committee* for the speedy clearance of various project proposals. The cell headed by the Director of Industries and Commerce will coordinate, the actions of various departments like the factory inspectorates, public health, MMDA, TNEB, Madras Corporation and Pollution Board to help small entrepreneurs to get their projects cleared expeditiously. It also has monitoring responsibilites and meets once a month to take stock of the results of the committee's decisions. Second, the *chapter on Industrial Development* in the states 1990-91 Plan referred to at the start provides a modest Rs. 104.19 crores against Rs. 92.94 crores in the current year and lays emphasis on the government guiding and stimulating industry and not operating by itself. Third, *Best and Crompton* is now moving into the large industrial sector, its growth plan provides for modernisation and consolidation of existing units and develops as thrust areas foundries, hydraulics and environmental engineering which will move the comparative turnover five fold from the current Rs. 195 crores to Rs. 1000 crores by 1995-96. Fourth, *Madras Refineries* has drawn up a plan for setting up a Rs. 30 lakh pilot plant to produce compressed natural gas for the state's public transport system at the rate of 1200 cubic metres a day and has requested ONGC to release the necessary gas from Cauvery. It has also drawn up a plan to invest Rs. 8 crores during the VIII Plan to set up a compressed gas plant to cater to 7000 cusecs a day. The project to be completed by 1994-95 will revolutionise the state's transport system. Fifth, *Manali Petro Chemical*, having successfully launched the mother project for the manufacture of propylene oxide/glucose is now diversifying with an investment of Rs. 400 crores to manufacture Methanedi ISO' Cyanate and tolyalene di so cyanate which will have backward linkage with the mother unit. It will save the country Rs. 35 crores a year in foreign exchange. Sixth, *Madras Fertilisers* have moved the first stage in the approval of the Public Investment Board for its Rs. 312.70 crores restructuring project which will increase its output of ammonia from 750 tonnes a day to 1050 tonnes and urea from 885 to 1400 tonnes, while also lowering its energy consumption. Seventh, *Tamil Nadu Sponge* is setting up the first ever lignite based sponge iron plant in the country using Neyveli Lignite which is close by and limestone from the surrounding area and high quality ore from Hospet, it will use SL/RN rotary

kiln direct reduction technology to produce sponge iron lumps and briquette. It will go into commercial production in April/June of this year. Eighth, *Coimbatore exports of cotton yarn, engineering goods and knit wear* from nearby Tiruppur now valued at Rs. 700 creres will touch Rs. 2000 crores by the end of the VIII Plan, making Coimbatore a major exporting centre. Ninth, *ELCOT* is setting up a plant to produce 7000 sq metres of integrated membrane switch gear at a cost of Rs. 6 crores. It will be the first membrane manufacturing unit in the country, the existing units being only assembly units. It is to go on stream at the end of this year. Tenth, *the CK. Birla Group* is investing Rs. 200 crores for a ball bearing units at Hosur supplementing its 2 units on Hindustan Motors and Hindustan Power Products at Hosur. Eleventh, *Nova Electro Magnetics* is setting up a 100 per cent export oriented unit at MEPZ to manufacture 18 million video tapes and cassettes—all for export. It involves an investment of Rs. 40.94 crores for which the state subsidy of Rs. 35 laks is available (its promoters are investing Rs. 7.9 crores, term loans are Rs. 26.32 crores, and Rs. 6.37 crores will be through a public issue). Twelfth, *SITRA in association with the Apparel Production Council* has established a centre at Tiruppur at a cost of Rs. 13 lakhs to train specialists and technicians in knit wear and to provide library facilities there. This will further develop Tiruppur as a major knit wear exporting centre, earning now Rs. 500 crores a year, as noted earlier. Thirteenth, *SIPCOT's* 54 percent increase of term loans in 1989-90 are beginning to show positive results in the functioning of the assisted industries, though a minus point is the fact that only 3 out of its 7 industrial complexes — Hosur, Ranipet and Gumidipoondi are successful ventures, as revealed by its assessment. Fourteenth, the *Salem Steel Plants* second expansion with its second Sendzimir mill is starting in February, 6 months before the scheduled date. Finally, *CLRI* reports that it has asked union approval for creating an updated design facility for leather garments and footwear in order to meet the fast changing fashions in the leather field. It is also setting up facilities for developing new biological and chemical methods to check pollution problem created by effluents. This is an impressive array of industrial activities, which in a sense was crowded by the 10 Industrial Trade Fair, — INTEC— 91, in Coimbatore which hauled in big business, attracting 30,000 business visitors and generating orders for Rs. 50 crores.

January also saw some negative factors in the industrial scene in the state. First, the procedures for the rescue of the two important units — *Standard Motors and B & C Mills* are being prolonged endlessly with no end in sight. For Standard Motors the search for a promoter continues and is complicated by outside interference in the work of BIFR and Banks. In the case of B & C Mills, too, the search for a promoter continues and the agreement on the division to relocate its processing unit is holding up the rescue of this prestigious unit. Second, *KCP Ltd.* being closed its shutters since October 1990, has resulted in a production loss of Rs. 2 crores and R. 12 lakhs in wages so far. Third, *Neyveli Lignite Corporation* which has been in the forefront of public sector enterprises is now facing difficulties, a) without a chairman since September, b) has had to reduce its bond issue by over 50 per cent because the corresponding projects have not made a start, c) its production programme is below target in 4 of its 6 producing units between April-December 1990 (the Mine II, its thermal station, the fertiliser plant and the briquetting plant), d) the expansion of the second stage of thermal plant to II has suffered a set back as 210 MW fourth unit has been delayed beyond its scheduled date in November 1990 and there are doubts whether it can attain its revised March 1991 date. This sad record is traced back to March 1989 when there was a gulf dividing the chief executive and the rest of the management. Further the effect of the hike of the excise on manmade fibres by union government referred to in the last issue has been on the unorganised sector of the textile industry *power loom and handlooms* particulary in Kirmagin district where they are concentrated. It has pushed up their production cost at a time when the market for their product has slumped, making their survival difficult. Fourth *leather*, which has been a major strong point of the state faces three negative problems. One is the raw meterial shortage especially against the target for the VIII Plan it has set itself. Second is the financing of its modernisation programme for which it has requested $400 million over a year, which with the increased cost of machinery, must now can be increased. Third, there is the spreading world recession which will result in shrinking its exports. Fifth, the *Chemical industries* in the state are facing a serious problem as the important input, industrial alcohol, is becoming increasingly scarce because of its diversion to the liquor trade, for potable purposes. Finally as part of the capital *going out of the state* referred to in an earlier issue, Karnataka has been able to attract investment from 4 sugar companies in the state-Dalmia, EID-Parry, Sakthi Sugars and Penni Sugars-involving a capital investment of over Rs. 100 crores. Except this last factor, the other negative element are mendable by appropriare action by the state, Even so the positive elements are overwhelming in January in the industrial profile.

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IV Education, Science and Health

Educational reforms

The placing of the Ramamurthy Committee in Parliament has led to wide ranging debate on its recommendations. The Committee, it was noted, has recommended that the Government examine the scope of making universal elementary education (UEE) a fundamental right and for giving educational backward minorities a fair deal. It recommended that women teaching in primary, middle and high schools should be atleast 50 per cent. Noting that 48.6 per cent of habitations (20 per cent of the rural population) do not have primary schools, it finds this one for the reason for lack of access and retention of girls in primary education. It wants that the constitutional directives for UEE to be enlarged to include early childhood care and education. It wants a time frame to switch over to regional languages as medium of

instruction and strict implementation of the 3 languages formula. It recommends a commission to suggest examination reform on an orderly basis, and the discontinuance of the present separate streams at +2 to be replaced by an integrated course of vocationalisation. It suggests that academics be involved in the decision making process of central and state universities. It states that it is in basic agreement with the National Policy on Education which puts to rest the political demand for a complete revamping of the education system. On the future of the Navodaya schools it suggests maintaining status quo and not increasing the present 261 schools, or transferring them to the states leaving them to decide on their future, or restructuring the scheme to make it "a programme of broad based talent nurturing and pace setting". It favours an educational complex — an umbrella organisation at the district level to coordinate educational activity in the district. The complexes will cover not only the neighbourhood schools of the Kothari Commission but also universities and colleges in the district. It has recommended introducing non formal elements — in syllabus, teaching techniques, training, entrance, and exit in schools. The governments reaction to the report is not known. The Minister sounds ambivalent on it. CBSE schools in Madras are setting up a bank of talented teachers to help students to achieve better results in the ensuing public exams. While the setting up of such a pool is good both for teachers and students, its being linked to examination system is a retrograde step. It should promote learning and not examination passing. On the basis of the success of the Rs. 5 crore scheme for ecology, education in 1500 schools, it is proposed by a governmental group that Rs. 60 crores be allocated to environmental orientation in school education. The aim of making education programme of the school to be in harmony with environmental situation and concerns can be achieved with existing resources — human and material, and does not need such a large allocation. The high power committee appointed by the government under Mr. Karthikeyan's chairmanship to examine the poor performance of Tamil Nadu candidates in IAS examinations has recommended that syllabus for university courses in the state should be revised periodically to keep pace with the growth of information and knowledge while universities need to keep their learning systems and learning techniques updated, the aim should not be success in the IAS examination. The latter depends on several quite non educational factors such as the setting up tutorial institutions, the publication of bazaar notes and the prpoer grounding at the school level. UGC has notified universities that under its revised scheme of unassigned grants it will provide finance for publication of learned research works as a means of bringing out high quality publications.

Adult Literacy

A round up of literacy efforts in 1990-the International Literacy Year-finds a good record with literacy mobilisation efforts being intensified through BGVJ which covered 332 districts, 31,000 villages, and enrolling I million volunteers for literacy work. Ernakulam being declared a fully literate district followed by Kerala's decision to make the state 100 per cent literate, with similar efforts by Gujarat, Goa and Pondicherry and regions of Karnataka, West Bengal, MP, UP, AP, Maharastra and Bihar (25 districts covering 25 million illiterates) ; the improved literacy pedagogy introduced centres around 3 primers and a person is declared literate vhen he insisted on completing the 3 ırimers (this programme is called the mproved Pace and Content of Literacy ˈechnique (IPCC) ; radio learning pack-ıge through AIR involving 4000 adult ıducation centres and II lakh adult ıolunteers, which will be supplemented ɔy printed education materiel ; and 625 ıoluntary agencies which were running ‡5000 centres in almost every state.

Science

The Annual Science Congress in early January at Indore on "coping with natural disasters-an integrated approach" was opened by the Prime Minister who stressed the reliance of the country on science and scientists. The central problem of why with such a large body of scientists — supposedly the largest after USSR and US — science has made no dent on the country's major problems of poverty, unemployment, illiteracy and illness was not really answered. What was good at the congress was the time devoted to "higher education in science and technology", where a consensus emerged that higher education has been subsidised far too much, to the neglect of primary education-which may well be one of the clues to the problem set forth earlier, of the large body of scientists making no impact on the economy and its major problems One immediate corollary is for fees to be paid by students in higher education who come from well to do families and for private business to do more for education-particularly technical and science and technology education. The state is to commence use of mobile environmental laboratories to help detect and analyse industrial pollution even in remote areas. The TN Pollution Control Board has commissioned 6 mobile labs with 20 instruments each to work from Manali, Cuddalore, Tiruchi, Tuticorin, Coimbatore and Hosur. A national research centre on bananas is being set up at the Agricultural College, Kumular, Dharmapuri district which will be important for the banana industry.

Health

The Comptroller and Auditor General in his last report to Parliament finds grave deficiencies in the administration of the Integrated Child Development Services (ICDS). In the 1984-85 period projects have not been properly located, monitored and equipped. beneficiaries not identified, sub standard food is provided to them, health and medicare services are below standard, records have not been properly kept, financial irregularities have taken place and international assistance worth crores of rupees has not been used. This is a serious indictment and rather than increase funds for the scheme every year and in every plan, its organisation, administration and financial procedures should be reorganised and brought into line with its objectives. The Women Doctors Association reports that in Tamil Nadu the incidence of unwed and teenage motherhood has increased sharply, resulting in an alarming increase in illegal abortions. This should be openly discussed, the facts should be publicised, the family life which gives rise to this should be carefully examined and reordered and the medical termination of pregnancy act and facilities made widely known. World Leprosy Day, saw the launching of a massive 3 anti leprosy vaccines in Chingleput district among a population of 3 lakhs in 150 villages, the result being compared with 3 lakh people who will be given saline or place too.

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V. Employment and Labour Relations

The government informed Parliament that 33.25 million job seekers are on the employment exchanges at the end of the VII Plan — 30 March 1990. The government also reports that there was a substantial decline in the number of mandays lost through strikes and lock outs from 14.59 million mandays in the first 8 months of 1989 to 8.22 million mandays in the first 8 months of 1990. Strikes and lock outs have been mostly limited to West Bengal, AP, Tamil Nadu and Maharastra who account for 70 per cent of the total mandays lost — with lock outs recording 58 per cent of the mandays lost. The government states that it is working on an amendment to the Minimum Wages Act to link the wages increases to consumer price index and adjusted periodically as recommended by the conference of labour ministers. Also a union law for agricultural workers and a welfare fund for them is proposed. ILO in a study of state and union intervention on rural labour in Kerala states that the wage rates for agricultural labourers and workers in other rural occupations are one of the highest in the country, due to organisation strength of the rural workforce. State intervention on organisation of workers, land reforms and effective PDS have also raised the reserve prices of labour. State has directly intervened in setting minimum wages and assisted wage bargaining through industrial relations committees. While commending the Kerala experiments, it warns against declining employment opportunities in rural areas. The study points to the complementary relations of employment generation energy and the creation of conditions for the organisation of rural workers. However in male employment opportunities have been declining between 1964-65 and 1983-84 by 26 per cent in terms of per capita employment for agricultural labourers, whereas for other rural labourers the decline is only 10 per cent.

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VI. Other Items

ACU

The Association of Commonwealth Universities held its quadrennial meeting and conference in New Delhi in January 1991, with the Association of Indian Universities acting as the host. Some 50 Vice Chancellors from the Commonwealth Universities and 50 Indian University Vice Chancellors attended the conference. The theme of the conference was—The Challenge facing the university can the new policy meet them ? The first day and a half of the 4 day conference was devoted to an analysis of Indian Universities under four heads — challenges, equity, efficiency and relevance. The discussion was very comprehensive but finally concentrated on the question of equity vis efficiency as not only an Indian but a world wide problem. The conference was well organised by the host — the secretariat of the Association of Indian Universities.

IIC

At the India International Centre in January the Economic Affairs Group organised two events. First was the monthly panel discussion which this year is to concentrate on issues of national development. And so the January panel took up the issue of the objective of self reliance and poverty alleviation. In the presentation and discussion there were two sharply divergent views presented as a means of alleviating the major Indian problem of poverty. One was to develop the economy on the basis of an autonomous self sufficient unit and the other was to develop the economy as open ended and market oriented. The second event was the seminar the next day on the Ninth Finance Commission at which the Chairman of the Commission and the finance member made the presentation and Mr. Guhan presented the critique of the commissions recommendations. There was commendation of the good technical work of the commission and its primary methodology on quantifying the normative approach. The limited percentage of total resources made available to the states who carry the development responsibility was critically commented on.

SPC

As noted earlier, there were two meetings of the State Planning Commission in January. One was devoted to a review of the states ongoing education programme, where the *possibility of rationalising the scholarships* to the backward class students was agreed upon. It was also noted that the report of the committee to meet the problem of the poor performance of Tamil Nadu candidates at All India competitive exams referred to earlier, should be taken into account in the reorganised functioning of the universities.

SRC and TNBCE

The bimonthly meeting of the Governing Council of the State Resource Centre was held in mid January at which the rules and procedures to be used for the staff of the council, as recommended by the Standing Finance Committee were approved. Also the council noted with appreciation the report of the many activities of the adult education cadres and the work of the Director and staff during the 2 months since the last meeting of the council. The executive committee of the Tamil Nadu Board of Continuing Education reviewed the financial position of the Board and decided on the procedures for the collection of annual subscriptions It also noted the progress on clearing the land and he approval of the MMDA for the permanent building of TNBCE & SRC. The state government reviewed with the director the matc hing contributions that it would make as a *counterpart* to the Rs. 5 lakhs made by the union government. It decided to review the projects funded under the Madras District Literacy Committee at its next session.

February Development Seminar

The paper for the February seminar, Resource Constraints for Housing in Metropolitan Cities by V. Suresh together with a summary of the discussion at the seminar appears as the first article.

Second Article

A note on the Publication Policy of Universities appears as the second article.

Publication Abstracts

A set of abstracts of the Publicatios by the staff of the Institute appears in this section.

M I D S News

Dr. A. Vaidyanathan participated in a *meeting* of an Expert Group of the N.S.S. to review Context and Design of the 1991-92 All India Landholdings, Debt and Investment Survey at New Delhi on February 27 and 28, 1991.

He also participated in a Workshop on Tank Irrigation in Tamilnadu at Trichy organised by the Bharathidasan University and the Institute of Water Management Studies in Trichy.

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Dr. P. Radhakrishnan participated in a three-day seminar on Ambedkar and Modern India at the Political Science Department of Mysore University from February 15 to 17, and presented a paper on "Ambedkar and Minorities."

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Dr. S. Neelakantan delivered Inaugural Address of the UGC sponsored National Seminar on "Environmental Impact Assessment — Indian Experience" on February 21, 1991 at Geography Department of University of Madras, Madras.

He presented a paper on "Agricultural Policy Through the Plans — Changing Directions" at the Seminar on "Approach to Planning in India" held at the *Economics* Department of Madurai Kamaraj, University, Madurai on February 25, 1991.

On March 2, 1991, Dr. S. Neelakantan attended the Governing Body Meeting of the Govt. Arts College, Coimbatore to review the autonomous status of the College with the Visiting Committee.

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February Development Seminar

Resource Constraints for Housing in Metropolitan Cities

by

V. SURESH
Executive Director (South Zone), HUDCO, Madras

1. Introduction

1.1 India is likely to enter the 21st century with an urban population of 34-35 crores. It is also estimated that the number of cities with a population of more than one million each will go up from 12 in 1981 to around 40. Hitherto urban India has been dealt with as a residual issue, an adjunct to rural India. Urban India has become a massive and perhaps frightening reality of the first magnitude. The cities can no longer take care of themselves. They need the full and undivided attention of our planners and administrators.

1.2 The housing scene in India is rather alarming with a backlog of 7 million houses in the urban and 16.3 million houses in the rural areas. Added to this, is the increase in the number of households which is expected to be 63.80 millions by the year 2001. By the year 2001, the shortage will be of the order of 15.5 million houses in the urban areas and 25.5 million houses in the rural areas. Thus, one of the thorniest problems of the rapidly growing urban areas in India, is shelter. Housing has to be given adequate sectoral priority. Although attempts have been made by the public and private sector during the last decade to provide increased thrust to shelter, housing shortage continues to be enormous.

1.3 The stark reality of the urban housing scene in India is that more than 2 lakh urban households are without any shelter and as many as 45% are living in just single room houses with nearly 5 persons in a room in a state of extreme over crowding. Adding to their agony is the absence or inadequacy of the basic services.

.14 In the metropolitan context the situation is more aggravated with the existence of a large component of squatter settlements or 'cheris' or 'gudisalus', 'zoparpattis', 'jhuggi jhompris' etc. The extent of population covered by squatter settlements range from 20 to 42 percent in various metropolitan cities and towns. These settlements which are predominantly belonging to the informal sector contribute in a very major way in the economic development of the cities. At the same time, they do not have a place in the human settlement planning and development strategy. They start finding their own solutions. As a result of this apathy, the nature of settlements create enormous problems through lack of sanitation, hygiene, security and even lead to social tension.

Robert McNamara, Ex. World Bank Chief had said that..." If cities do not deal with problems of these settlements in a constructive way, the informal sector will start dealing with cities in a destructive way ...". In short, what it would mean is that if the cities do not take care of the needs of slums, slums will take over of the cities. The writing is on the wall and we have already seen the extent to which slums have already over grown, from public and private open spaces and lands, canal banks, sides of railway lines and people have now taken over pavements and footpaths. The problem is no more with slum dwellers, but with pavement dwellers. In the city of Madras alone, we have on date, over 18228 families with a population of 1.22 lakhs occupying over 135 road margins. The accretion of the slum families of the cities is of the order of 5,500 each year. The human settlement strategies in metropolitan cities, be it Delhi, Madras, Calcutta, Bombay or even second — tier cities of Bangalore, Hyderabad, Ahmedabad or Kanpur, show that all the housing colonies have taken care of the needs of acute formal sector. Approach to human settlements of the formal sector has been one of fire-fighting approach of trying to solve the problem after generation of the housing crisis and degradation of the settlements in which they live in. Therefore, this is the biggest challenge that we are facing in metropolitan cities in respect of housing. The approaches that the Central, State and city governments would take towards the crying need is being watched with great concern and interest.

1.4 The policy statements in the successive plan documents have continued to emphasize the importance of the housing sector but in reality, investments in housing as a percentage of total investment has declined. As may be seen from the *Table 1* within the total investment the share of the private sector has been dominant, even though private informal investments are not included.

1.5 Another important dimension that has got to be kept in view is the rate at which metropolitan cities range from 60 to 75 per cent with an annual growth of 6 to 7.5 per cent in population. Population of Madras which is now 4.5 million in 1991 is expected to reach 9 million by 2011. Bangalore has already registered decadal growth of 76 per cent in 2 successive decades of 71-81 and 81-91.

TABLE I

Plan period	Total investment in the economy (Rs. in crores)			Investment in housing (Rs. in crores)			% age of Hsg. Inv. to total Inv. in economy
	Pub.	Pvt.	Total	Pub.	Pvt.	Total	
1	2	3	4	5	6	7	8
1st	1560	1800	3360	250	900	1150	34
2ns	3650	3100	6750	300	1000	1300	10
3rd	6100	4300	10400	425	1125	1550	15
4th	13655	6980	22635	625	2175	2800	12
5th	31400	16161	47561	1044	3636	4680	10
6th	97500	747101	72210	1491	11500	12991	7.5
7th	168148	180000	349148	2458	29000	31458	9
8th				7750	69746 (proposed)	77496	

Source : Draft Housing Policy, Government of India, Ministry of Urban Development, May 1990

This would mean that the city authorities would have to set up an additional Madras or additional Bangalore in 2 to 3 decades, over the existing cities built over the last 2 or 3 centuries. This calls for a major re-orientation in our approaches in application of limited resources, to take care of the gigantic needs of housing and city growth in metropolitan cities.

2. Resources

Following are the resource requirements for housing :

a) land

b) access to services

c) finance

d) building materials and technologies

e) human resource of various levels (professional, supervisory and artisans)

f) delivery system

2.2 Land

One of the most critical resource needs to take care of the requirements of housing in metropolitan cities is access to serviceable land. While Bombay and Calcutta have very clearly demonstrated its inability to identify new pockets of residential land and have gone in for satellite town developments through New Bombay, Calcutta through Dhankuni, Kalyani and Madras has initiated satellite towns through Maraimalai Nagar and Manali, the stark reality is that the pace at which serviceable land is being made available for growing demand is very small and of negligible proportion. Therefore, the time has come for pragmatic, realistic and innovative policies for intense and optimum utilization of urban land for residential purpose in metropolitan cities. The following areas of action could take care of the grim scenario.

a) No more land should be made available for individual residential plots, as far as possible, and only low rise high density group housing should be permitted for enhanced and optimum utilization of land. Delhi has already taken an initiative way back in the seventies and only group housing through cooperative sector housing with 2 to 3 storey to be taken up. Some of our metropolitan cities are still to come to grips on the above front.

b) Even where individual plots are to be made available, to take care of the socio-economic needs and demands, a major re-orientation on the nature of plots to be developed need to be taken. The time has come for coming down heavily on the plot size and, more importantly, the nature of development on the plots need a very serious review. Even today, the type of residential development of new plots is based on detached housing pattern for open spaces on all sides. Way back in 50s and 60s many metropolitan cities have changed to either semi-detached building or row housing approach.

c) The density of development in most of the residential neighbourhoods has only been achieving marginal levels of efficiency, namely from 60 to 100 dwelling units per hectare. It is, therefore, necessary that this is enhanced to 150 dwelling units per hectare.

d) The existing residential land pockets with single storey development could be further intensified to provide for additional dwelling units, with two to four additional dwelling units.

e) In the residential neighbourhoods which are to be taken up in and around the fringe areas of the existing metropolitan areas care should be taken, to make them as self-contained townships so that the families settle down and they do not face the poor settlement rate as seen in Maramalai Nagar or Yelahanka for lack of social and other community facilities and amenities. Transportation linkage is yet another major felt need for the same.

f) Substantial amount of urban land can be liberated if only the Urban Land Ceiling Act provisions are suitably amended and thus un-locking the available land in the heart of the metropolitan cities. This requires a bold initiative for a change.

2.3 Services

All the metropolitan cities are suffering from inadequate levels of services, be it water supply, sanitation, sewerage, solid waste management, transportation or power supply. Though these are important service sectors and are to be taken care of by city level authorities, what is required to be emphasized is, while discussing the subject of housing there is need for related commensurate quantum jump provision of public land to have access to proven services in the cities. However, one significant message that can definitely be conveyed is that conventional solutions do not just meet the needs and use of various non-conventional energy systems would have to be utilized for taking care of the energy needs of housing in the metropolitan cities. This could cover the use of integrated bio-mass related bio-gas units not only as sanitation system but also as an energy producing system as done in Beijing where over 30,000 biogas units take care of the sanitation needs as well as the energy required for home fuel and street lighting. Yet another input that should be taken up is the extent to which waste water could be re-cycled to take care of the city tree plantation and industrial water needs. With the pace of development that is coming up on an increasing level, the possibility of pedestrian cycle track network to be put in the metropolitan cities also needs urgent attention. In India a lead has come in Pune.

2.4 Housing Finance

The study group headed by Shri R.G. Saraiya, Banking Commission have recommended the creation of specialised housing finance institutions to enlarge the flow of savings into the housing sector in 1971. The RC

hah, working group on housing nance sector by the Reserve Bank f India in 1978 also recognised the ieed for a specialised central housng finance institution. The 7th five ear plan proposes the establishment of National Housing Bank on the ines of the NABARD in order to fill the present lacuna of non-availability of long term finance to individual builders. The National Housing Bank established in June 1988 at the apex level and a supporting institutional set up at appropriate lower levels is to help the credit needs of the individuals and groups in solving their housing problems and also to facilitate resource mobilisation.

The National Housing Bank has been established :

to promote new Housing Finance Institution at the Regional / State level.

to promote new institutions at base level by identifying viable, reliable groups providing seed capital to them as also professional experiments and support in initial year.

to formulate policies relating to mobilisation of resources and extension of credit for housing including creation of the instruments of savings link to the housing.

— to regulate the working of the Housing Finance Institutions at the base level and coordinate their activities as also those other agencies in the housing field.

— to mobilise resources for housing.

— to identify the impediments—legal and fiscal, physical and environmental and technical to the active involvement of the household sector in the plouging of this saving in housing, and

— to promote measures by way of changes in the law, enactment of new legislation, simplification of procedures etc. to remove them.

2.4.1 Existing Housing Finance System

The existing housing finance system has two broad segments formal and informal. The formal source comprises of :

a) Budgetary allocation

b) General Financial Institutions/ Organisations like LIC, GIC, Commercial Banks and Provident Fund Organizations, etc.

c) Specialised housing financial institutions like HUDCO, HDFC, the Primary and Apex Cooperative Housing Finance Societies and a few housing finance set ups in the private sector.

The informal sources include household savings and private sector employers providing housing loans to their employees. As put forth in the NHP draft policy document for the 8th plan period, the lack of financial resources is a crucial constraint to housing activity for the ordinary individual alongwith the land and services. As the document put forth the rate of savings at the household level is significant. The CSO has estimated the gross domestic savings for 1985-86 at 22% (base year 1980-81) and a net savings at 13.3%. A study made for the Ministry of Urban Development by the Society for

Development Studies (SDS) disaggregates savings rate into 21% for formal households and 12.1% for informal sector households. In terms of absolute amount and breaking down the CSO estimates the urban savings in 1985-86 was Rs 13000 crores and the rural savings Rs. 6125 crores with an assumption that the proportion of the rural savings is about 30-35% of the total savings. This would mean :

a) Investment from public sector agencies are insufficient. The same will have to be enhanced through proper budgetory allocations for housing.

b) Housing loans on easy terms are not available to potential builders. Housing Finance Institutions oriented towards providing softer loans for individual home construction should be promoted. For this it is essential that savings are mobilised and people advised to invest in home loan account etc. which would go a long way to mop up savings from the public for housing though the savings market is directed by the Government.

c) Savings in construction would also greatly added to the resource generation. For this some of the Housing Finance Institutions like HUDCO do try to maximise the resources by cost ceilings, plinth area restrictions and advocating introduction of cost effective techniques. The cost effective techniques should be brought within a reach of the public by the set up of the Building Centres, reorienting develoment control rules and town planning rules to accommodate these techniques and principles.

It is gratifying that large numbers of Housing Finance Institution (HFIs) have emerged like the HDFC, Can Fin Homes, Vysya Bank Finance, HPMC, Tapoban Housing Finance Ltd, Ind Bank Housing Ltd, etc in addition to the lead given by LIC and GIC for opening separate housing finance institutions. In addition to the bulk financing that is made available by HUDCO, the retail financing contribution by the HFIs would play a significant role in giving the necessary financial resources for housing. The role that would be played by the National Housing Bank in the 8th and 9th Plan periods for increasing the resource inputs in the housing sector is, being watched with great interest.

2 5 Building Materials and Technologies

Building materials contribute 70% of the cost in housing and the balance met by human resources covering professionals, supervisors and, more importantly, artisans' namely ; masons, carpenters, barbenders, electricians, plumbers, etc. With the cost of construction increasing on an average at the rate of 13 to 15% each year as against the cost of living through inflation which is clearly less than double digit, it is becoming a galloping race and challenge to the professionals to have houses built for people at affordable terms. The 4 significant inputs are cost of bricks

TABLE II

Requirements / Availability of Major Building Materials for 8th Five Year Plan (1990-95)

Sl. No.	Material	Unit	For 217.7 lakh dwelling units Requirement	Quantity Availability	Shortage	Remarks
1.	Cement	Million ton	131.98	114.93	17.05	6% growth rate has been assumed. 40% of total production will be available for Housing Sector.
2.	Steel	Million ton	13.94	11.24	2.70	Growth rate has been assumed as 5%. Availability for whole construction industry is 56% and out of which 20% has been taken for Housing Sector.
3.	Bricks	Million	286496	231598	54898	A growth rate of 3% has been assumed per annum for only clay bricks. 80% of total production is expected to be available for Housing Sector.
4.	Aggregate	Million cu.m	555 94	270.35	285.59	The growth rate per annum has been assumed as 6% and availability for Housing Sector has been taken as 40% of total production.
5.	Timber	Million cu.m	29.09	15.75	13.34	2% growth rate has been assumed for timber during 8th Plan on the basis of current availability of 3 million cu.m. 40% of total production is expected to be available for construction

Source : Draft Housing policy, Government of India, Ministry of Urban Development, May 1990 cement, steel and timber, which have lately registered enormous increase in price over last few years (Table 2). It becomes impossible to imagine to construct a house at cost lesser than Rs. 200/- per sft or Rs. 2,000/- per sqm. These costs do become non-affordable for more than 80% of the target groups excepting the super high income groups and high income groups. What is, therefore, needed is a mix of appropriate and cost-effective building materials and technologies so that affordable housing becomes a reality.

One of the critical areas which require the urgent attention of all is in respect of building materials and technologies. The conventional building materials and technologies are by themselves resulting in costs of construction ranging from 1750 to 2500 per sqm. Further, these are not able to meet even the needs of the present middle income housing needs. A slight increase in housing operational levels bring in shortages of materials and thereby increase in costs of building materials. Considering the requirement of major conventional/building materials in the 8th five year plan period, it is noted that based on the requirement and also availability, there is a shortage of over 17 million tons of cement, nearly 3 million tons of steel, over 50,000 million bricks and 14 million cubic meter of timber etc. Even if one has to take recourse to the avilability of conventional building materials, the fact of the matter is that either these are scarce and costly or in short supply. Therefore, there is a need to look beyond and find out how innovative and new building materials and technologies can be identified and harnessed in the housing building system.

Possible recourse have to be taken for manufacture of building materials from various agro-industrial wastes like fly-ash, red mud, phospho gypsum, coal rejects, jute stalk, coconut husk, coir waste, saw mill waste coconut pith, etc.

Over 150 million tons per annum of agricultural and industrial wastes are available in the country. The various thermal power plants generate besides power also fly ash which is of the order of 30 million tons. The Fertiliser factories bring out by-product of phospho gypsum of the order of 5 million tons annually. Red mud, considered as waste from aluminium plants again account for nearly 2 million tons per annum. Blast furnance slag waste from Iron and Steel Industry is of the order of 9 million ton annually. Further, agricultural wastes like rice husk, straw, saw mill waste, coconut husk, coir waste, pith, jute stalk, sisal, ground nut husk, etc. and other biomas material, amount to nearly 60 million tons annually. Therefore, the strategy that is being envisaged in the National Housing Policy in respect of building material and technology has been to go in for a package of measures.

In addition to efforts to manufacture building materials utilizing the above alternatives, what is required is to give appropriate support through building material estates, building material markets, and super bazaar

outlets where all building materials required for housing could be made available to the people. Further a major thrust would be required for imparting appropriate training and skill upgradation for the various artisans like masons, carpenters, barbenders, etc, on cost effective building technologies. This is a major gap and unless this is bridged, there is no hope for introduction of housing solutions at affordable terms even though these are proven technologies.

2.6 Human Resources

As indicated in section 2.5, human resources account for 30% of the cost. Even though construction sector contribute to the second largest source of employment, next only to agriculture, this is one of the most dis-organized and unattended groups. There are over 25 million construction workers in the country. The problem is more acute in the metropolitan context. With the fast development taking place there is a massive influx of construction workers from rural hinter land who come to the cities for building houses for all and shift from site to site as nomads and finally settle down in squatter settlements. It is, therefore, desirable that these construction workers (skilled, semi-skilled and un-skilled) are provided with the right amount of training and skill upgradation training so that they are able to handle the type of construction activity utilizing traditional, modern and cost-effective construction systems. The Building Centre movement through the network of Nirmithi Kendras, Kattida Maiyams or Building Centres holds the key as the right solution for this important human resource development need. Similar efforts are required at professional and supervisory levels. In addition to the conventional professional input of architects and engineers, the human settlement needs of informal sector require a software discipline of social scientists and sociologists through the establishment of urban community development groups, who have played a major role in housing needs in many cities like Hyderabad. The urgent need therefore needs to be strengthened in all the city level agencies dealing with housing in small names, urban development, city level, etc.

2.7 Delivery System

Predominantly, the efforts for housing delivery in metropolitan context is taken by the individual and private sector and the contribution of the public sector namely, Development Authorities Housing Boards, Slum Clearance Boards, Local Bodies, etc is only of the order of 20% or lesser. Therefore, what is needed is the right type of replay increasing the role of 'facilitator' and less and the cooperatives and individual groups to build homes. The corporate sector would also have to be brought in a big way as for every new industry or institution in the metropolitan cities it also creates a housing demand. While agencies take care of the employment needs, it also brings in housing crisis. It is to be consisdered whether new industries and institutions generating additional jobs could also be asked to chip in their contribution for housing for the employment generated by the enterprise. Cooperative group housing movement which has not been receiving support, excepting for Maharashtra and Gujarat, needs to be given a major fillip. It needs to be encouraged for registration of societies for making affordable bulk land so that this would serve the twin purpose of optimum utilization of land and also increasing the pace of housing delivery. Otherwise, in most of the metropolitan cities, the contribution of public housing agencies is ranging between 2000 to 5000 houses each year with very large organizational set ups provided.

It is also necessary to encourage private sector builders. Their contribution, even though marginal, do take care of only the housing needs of the super high income and high income category. Their potential should be tapped to cover the needs of the middle and low income housing as well. There is also a great need to professionalise the contribution of private sector builders so that their working system are streamlined with a clean track record for delivering houses within time, within cost, within quality and most importantly, above board dealings. Otherwise, this can distort the housing supply market with the working of a parallel economy. There are many established private builders emerging with dealings above board and such efforts should be encouraged by the State Government and city authorities.

What is needed is the right type of facilitator role through appropriate Housing Guidance Centres, Housing Information Centres, Housing Councelling Centres, etc, to be located in different metropolitan cities of the country on the lines of the Building Technology Exposition and Housing Guidance Centre set up in the HUDCO Southern Zonal Office at Madras and also back up support for appropriate delivery system through manufacture of building materials, components and also supply trained work force.

There is also a need to make a major change in the existing legal instruments for mopping up of additional housing units through Rent Control Rules, Urban Land Ceiling Act, Land Acquisition Act, Stamp Act, etc.

Efforts would also be required to encourage development of rental housing of a larger order for providing for single women and bachelor accommodation for those who are working in metropolitan cities. At present, excepting for a few ladies hostels, the single men look up to lodges which do not provide for the right type of accommodation. This need alone comes to around 15% of the urban population in metropolitan cities. If these are taken care of in a sensitive manner this would partly alleviate the housing problem.

3. Conclusion

The nineties are going to witness a major resurgence in the urban land scape of metropolitan cities of India. New initiatives in respect of land assembly, technology options, housing delivery systems are, therefore, called for. All these poses an enormous challenge needing urgent attention of housing agencies and the public. It is how we convert these challenges into opporunities that our performance would be evaluated.

Summary of Discussion

While considering the challenges posed by the housing crises in the million plus cities of India, Mr. V. Suresh opened up a discussion on new and needy initiatives in respect of Land Assembly, Technology Options and Housing Delivery Systems. He swiftly went through to explain the six major resource requirements for housing — land, access to services, finance, building materials and technologies, human resources and delivery systems — and the constraints for these in metropolitan housing systems. He especially voiced out that urban housing schemes are often geared to serve the High and Middle Income categories, and the lower income groups or the "Informal sector" start dealing with cities in a destructive way.

A lively discussion followed his presentation which covered issues regarding the 'Decaying core', 'socialisation of land' and the desirable 'life—span' of housing constructions. Prof. Neelakantan quoted the price theory to say that if the price of any commodity kept increasing further and further, it would eventually lead to its decay, though planners never seem to think it possible for urban land, while objection was raised, he said that Detroit was already dying on this account, and to stop such mishaps in India, pure privatisation is the ultimate solution. However Prof. Kurien put an alternative solution namely, to encourage the concept of socialisation of land, which when properly practiced would avoid many of our Urban Land crises.

Speaking about the poor construction of Housing Boards—Mr. Suresh included private construction too — the issue of a desirable life span was discussed. Even if one puts his earnings of about five to ten years as investment in housing, it becomes futile in a few years, unlike as in the Singapore model which guarantees 99 years of construction efficiency. In this context, an understanding was reached that and, economics is more important than life span discussions, since the pace of urbanisation keeps calling for swift changes in land designs to accommodate the evergrowing urban population, and infact only group housing should be permitted so as to enhance the optimum utilization of fland. Mr. Dattatri noted that the public housing agencies should only play the role of 'facilitators' thus alloting serviceable land to industrial groups and co-operatives to build their own houses.

A significant message conveyed was that Urban planning is taking a new turn towards developing the outer fringes of cities and towns so as to reduce the "pull" of these areas, as also to take facilities to them as a measure to develop areas uniformly. When Mr Suresh opined that satellite towns should be developed at a considerable distance from city proper so that they do not simply become extensions of the crowded city. Paul Appasamy brought in the need for subsidised transportation costs for the poor workers who have to travel long distances. The planners showed optimism about the Madras Rapid Transit System in serving the needy even if they be away from the city centre.

Considerable regret was expressed about the investment patterns in outer areas, because those plots are often bought by people who already have sufficient house ownership, thus again depriving the landless an opportunity to buy. Also bulk land under private ownership are pieced out to small buyers without any initiative to develop the infrastructure in these areas. Hence, Government control over such issues was considered very crucial.

While criticised that his paper was largely focussed on the middle and high income groups, Mr. Suresh clarified his position on the contrary, and especially briefed on the kinds of schemes they have for the EWS: 'Land Bank' for shelterless colonies, 'planned upgradable sites' or areas of squatters to be upgraded, and 'night shelter units' for wage labourers who do not stay with family. Single women and bachelor accommodation units were also to be considered.

The meeting ended with an expressed need for major changes in the existing system and more efficient legal instruments like Urban Land Acquisition Act, Urban Land Ceiling Act, and even new introductions like the vacant land tax, so as to alleviate the urban housing issues that are reaching unsurmountable heights.

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Some Suggestions on Publication Policy of Universities*

A. It was noted that there are three viable "models" of publication policy in South Indian Universities for emulation by others :

i. The Karnataka Model pioneered by Mysore University and followed by Bangalore, Karnataka and Mangalore Universities with 'PRASARANGA', the publication department.

ii. The "Osmania" (post merger period) model where text book publication has been taken over by "Telugu Academy" and other research publication is handled by the university, and

iii. The Tamil Nadu Agricultural University Model where research and popular publications are encouraged and the research findings are annually abstracted and sent to all other agricultural universities.

(The meeting took note of the fact that the oldest University in South India, Madras, as well as many other Universities do not have any publication policy of their own.)

B. It is desirable that important findings in doctoral research be published either before or after submission so that the scholarly community would have opportunity to comment on it and a consensus on it might emerge.

C. The provisions of the universities to confer doctoral degrees for theses approved with the condition that they are not fit for publication should be reviewed because of its contradictory nature.

D. The starting of an Inter-Disciplinary Journal for promotion of Social Science Research in South India is recommended for consideration by the Indian Council of Social Science Research.

* Statement of the Meeting of Heads of Social Science Departments held at the Madras Institute of Development Studies on Jan. 19-20, 1991 of Bangalore, Bharathidasan, Hyderabad, Karnataka, Madras, Madurai Kamaraj, Mangalore, Mysore, Nagarjuna, Agriculture (Madurai) and Osmania Universities.

E. A preponderent majority of students answering questions in Regional Languages in University Examinations points to the urgent need for continuation of production and publication of text books in regional languages by the universities.

F. The double responsibility of each member of the academic community (i) to pursue research and (ii) to communicate and react with other members of peer group is emphasised.

G. The responsibility of the Universities Publication Sections to employ professional people for editing, referencing and indexing is stressed.

H. The need for improving facilities for research in Social Science by universities and to exert pressure on the academic community to actively pursue research is advanced.

I. Periodic academic audit of teachers is affirmed.

J. The policy of Osmania University that the content of publications impinging on excitable issues, and of the the Agricultural University that publications relating to immediate sensitive policy matters, require prior approval by the University is approved.

K. For promotion of publications, an incentive structure through grant of special leave, research grants, honorarium for text book writing as well as academic recognition for writing in regional languages is suggested.

L. Taking into consideration the escalating cost of publications and the difficulties in marketing, arrangement with commercial publishers for undertaking costly distributive responsibilities is endorsed.

M. As the price of the average important book is getting beyond the reach of individual teachers, it is suggested that the libraries should purchase more than one copy of such publications in order to promote cultivation of the reading habit and access to research reference material.

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Publication Abstracts*

Nasir Tyabji : **The Genesis of Chemical Based Industrialisation, the Case of Oil Seeds in Madras Upto the Depression**

Working Paper No. 93, February 1990
PP. 57

It is by now well recognised that the Industrial Revolution in Britain in the late 18th century was only the first in a series of transformations of the industrial structure that evolving economies undergo. In its most simplified form, historians of technology recognise at least two more successive land marks, the chemical or more broadly speaking, continuous processing, revolution of the late 19th century, and the information revolution of the post Second World War Period.

The location of technologies in terms of the era in which they originated is important in assessing the degrees to which the older industrial economies have successfully transformed their industrial structure. They are also useful in terms of analysing the processes of industrial development, such as they were, in countries like India during the colonial period. It is possible, then, to distinguish between the growth of industry in the sense of the relocation of old established industry from the then industrialised world to India, and the growth of Indian industry of a nature similar to that currently evolving in the industrial centres.

In this paper, the focus is on the major raw material base, oil seeds, and on the several variety of constraints and problems that concretely influenced the prospects for the chemical based industries in Madras Presidency in the period leading upto the depression of the 1930s.

Oilseeds present an important case study for many reasons. From an economic point of view, they were one of the major commercial crops and items of export for the Presidency. In the absence of any significant mineral deposits they were also the major base on which chemical technology could potentially be based. Thirdly, the extraction of the raw material, oil, from the seeds was a mechanical process, with a pre-existing base in the form of the widely dispersed village ghanis or chekkus, and their derivatives.

* Abstracts of the Publications brought out in the Institute from February 1990 to January 1991

Although castor, gingelly and cotton seeds were all available in the Presidency and the first two grown on a commercial basis (the cotton seeds were a by-product of cotton cultivated for the textile-industry), it was groundnuts and copra made from coconuts which were the prominent oil seeds investigated for industrial application in Madras. This paper concentrates on these two seeds, and covers the period from the formation of the Chemical Industries Committee in 1909, to the beginnings of the depression in 1927. The subsequent period involves economic and political influences of a quite different nature and is the subject of another enquiry.

Although the distinctive trends in the behaviour of the groundnut and copra based economies had not delineated themselves fully by the end of period under consideration, certain broad features are apparent While the foreign exports of groundnut and groundnut oil would seem to have stabilised, although at levels distinct to the pre war period, coconut oil exports had a tendency to decline.

This paper attempts to show the factors underlying the two trajectories. The overseas groundnut oil market appeared to be one that was difficult to supplant. The interests of Indian suppliers, British exporters and the Government of India's fiscal requirements all militated against the replacement of groundnut export by groundnut oil exports to Europe (the bulk of oil exports were to the plantation workers in Ceylon and (Mauritius). The use of groundnut derived products in India faced the additional handicap of of the low incomes of the bulk of the Indian people.

Coconut oil exports seem to have faced a different set of circumstances. Initially, the climate on the Malabar Coast which allowed oil pressing in a single cold pressing seems to have encouraged the development of a competitive oil pressing industry on the coast. However the two significant developments described in this paper, the experiments on coconut-oil based soap, and the establishment of the Tata Oil Mills Factory in princely Cochin were decisive in reorienting the destination of copra products. While Tatas had set themselves the task of breaking into the metropolitan Indian markets for coconut oil, the Kerala Soap Factory generated a demand for soap leading to a derived demand for coconut oil. What also seems to have been significant was the location of the Soap Factory on the Malabar Coast, and the concentration of technological experiments on the most easily available oilseed, copra.

It would seem, then, that a combination of the right natural environment, the presence of a firm backed by substantial Indian capital and the entrepreneurship exhibited by officials like Frederick Nicholson and Kesava Menon led to the progress observed in the development of the copra based industry. Similar features were not present in the case of groundnut.

Malcolm S. Adiseshiah : **Mid Year Review of the Economy 1990-91.**

Working Paper No. 94, October 1990, pp. 192

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At this mid year point, the economy in 1990-91 presents positive

and negative elements. On the positive side, it has prospects of a good monsoon for the third year in succession, which should result in reaching the foodgrain target of 176 million tonnes and adequate yield of oil seeds, sugarcane, cotton and the jute crop. The industry perspective are equally hopeful, as mining is improving (except that the floods are temporarily holding up work in the eastern coal fields). Manufacturing industry has picked up to its 1989-90 growth rate in major industrial groups, except for consumer durables, and electricity is likely to surpass last year's performance. The essential infrastructure of services will contribute a third of the national income in 1990-91. It will be noted that no overall rate of growth of the economy for 1990-91 is forecast, unlike that of 1989-90, where an overall growth rate of 4 to 4.5 per cent and a per capita growth of 2.3 per cent are estimated, with the VII Plan recording for all 5 years a growth rate of 5.2 to 5.5 per cent and per capita growth 3 to 3.4 per cent. The reason why such an overall forecast is not made is because this repeatedly stated that the growth rate is misleading : further the Planning Commission has down graded the overall growth rate approach, and is concentrating instead on the performance of individual crops, manufacturing groups etc, which is an indication of both the real performance of the economy and its impact on the well being or ill being of the people. The Approach Paper to the Eighth Plan lays down the broad guidelines of development in each sector, which is both a continuing of the past trends, along with some much needed innovations. In planning, the decision to decentralise plan formulation and execution to the states and to elected local bodies will bring about change during the year, the result of which cannot be foreseen now. One innovation is to increase the total investment in agriculture and rural activities to 50 per cent of plan and non plan outlays, and its implementation which has started in 1990-91 raises question of what is to be included under agricultural and rural outlays and whether the target, even if the methodology of its computation is settled, will be attained in a phased manner over the Eighth Five year Plan.

On fiscal matters, the first major negative element for 1990-91 comes into play, and that is the very high revenue deficit of over Rs. 13000 crores which has been brought down to Rs. 7200 crores by use of the capital account surplus. The question here are a) the use of capital account resources to finance current account expenses, particularly the run away non development expenditures, and b) whether the amount of the deficit which is still high can be held to that amount, without the establishment of monetary ceilings recommended 3 years ago by the Sukhumoy Chakravarty committee, and accepted by the government but not implemented. The other fiscal issues is the effect of the Ninth Finance Commission awards on the finances of the states and the alternative to the Award proposal in the Review.

One direct effect of the fiscal imbaance is the growing public debt, internal and foreign, which is the second negative point in the economy. On internal debts, the burden of interest payment has reached a point where the net proceeds of market borrowings in 1990-91 are gradually declining, adding to the government's resources crunch. On the foreign debt, which is related to the Balance of Payments pressure, the level of Rs. 100,000 crores of indebtedness places India in the fourth rank of the world's largest debtors, and raises the debt service ratio to 30 per cent—a danger point being stressed by the Finance Minister.

A third major negative point in the economy in 1990-91 is the continuous rise in prices-both wholesale and and consumer-in the first two quarters of the year, so that the current inflation rate of 9 per cent a 12 month period, might well lead to a double digit deficit inflation figure for the year.

In agriculture, as noted earlier, because of the good south west monsoon, all the foodgrains and cash crops are doing well. The questions of emphasising the agro climatic zones approach, the extension of the minor irrigation, the dry land farming expansion and water shed development are raised. One major issue which is still under discussion is the agricultural policy of the country-comparable to the Industrial policy resolution. The many issues on agricultural prices, imports, credit and infrastructure for the farming community are urgent and raise questions which may carry beyond 1990-91. The need for improving the measuring and forecasting machinery for cotton and oil seeds are particularly stressed, as well as the urgent need to make a breakthrough in pulses production.

In manufactures, there is an unresolved question at this stage as to how manufacturing growth could be increased by a high 19 per cent in the last quarter of 1989-90. This may affect the growth record of manufactures in 1990-91. The new industrial policy is reviewed and questions raised on three of its provisions — on the import of 30 per cent of capital goods by the entrepreneurs at concessional duty rate, on imports of raw materials and components by them, and the freedom for foreign investors to invest upto 40 per cent in any company. The problems of capital intensity of the manufacturing sector are examined with recommendations, switch over from producing capital guzzling consumer durables to wage goods and intermediates. The opening of the steel sector to private enterprise is welcomed as the means of closing the supply and demand gap. The problems of small scale sector which has a crucial role to play in the new employment dominated economic policy is analysed. The problems of industrial sickness and means of curing it are suggested. In the public sector, the possibility of shedding non essential and perenially loss making enterprises which are identified is recommended. In the private sector, the problem of their export intensity is examined and its investment trend in 1990-91 forecast. Individual industries are selectively examined and the problems in each, notably in automobiles, fertilisers, textiles and drugs and pharmaceuticals analysed.

The infrastructure comprising crude and gas, electricity, coal, railway and shipping and non conventional energy is examined in relation to 1990-91. Here the opening of electricity to the private sector will provide some relief, particularly to manufacturing industry which bears the major burden of power cuts. But the private sector's contribution to total power supply will be minimal in the first years and its tariff will be higher than that of the state supply.

Human Resources tasks in 1990-91 are setforth, with some corrections on what is officially proposed such as "the total overhauling of its educational system". It is recommended that technology in the year should follow more closely the 1983 Technology Policy Statement and depend more on internal R & D.

The Savings and Investment section brings out the urgency of raising the gross domestic savings from the 20.5 per cent of GDP in 1989-90 to 21 per cent in 1990-91 as a step to move towards 22 per cent in the Eighth Plan. The means of doing so is shown to be only means of not continuing to rely on foreign investment as a means of industrial growth in 1990-91. (The Reserve Bank's preliminary estimate is that domestic savings have risen from 20 8 per cent of GDP in 1988-89 to 21.4 per cent in 1989-90).

The Balance of Payment deficit which is the fourth minus point is examined and its relation to the fiscal deficit, to inflation, to foreign borrowing is brought out. The suggestion here is not only to increase exports and cut down on imports as a means of reducing the trade deficit, but also to improve the inflow on invisibles through certain policy and pragmatic steps. In fact unless the balance of payments deficit is corrected, India's position in its trading relations with the industrial countries, in GATT, in dealing with the US Super 301 will be adversely affected.

How all these facets of the economy contribute to the employment generation objective is then examined. Here two issues are highlighted. First, taking the backlog of unemployment from 1989-90 which is 28 million and adding to it the labour force in the Eighth Plan of 37 million, the need to create employment for two thirds of that number. Second, the pledge of the Right to Work is examined and its workability set forth.

Finally all this activity must result in improvement of the standard of living of the ordinary man. What does that mean and by how much can it be improved? Here the data on poverty made available by the World Bank and three ministries of government are analysed and feasible programmes of poverty alleviation and inequality reduction are proposed.

All the above data needs to be modified and updated as a result of the Gulf crisis and war. The *Crude Oil Import* will increase by Rs. 4700 crores, the loss in *Remittances and Deposits* will be Rs 400 crores the loss on *Exports* will be Rs. 360 crores, the loss on *Contracts and Work* by Indian firms will be Rs. 400 crores. So the *Balance of Payments* will worsen by $3 million.

The effect on *Prices* will be largely as a result of the hike in oil prices, to push the level to something between 12-13 per cent for the year.

The effect on *Savings* will be to make it more difficult to attain the year's target of 21 per cent because of the loss of remittances and the fall in NRI deposits.

The effect on the *Budget Deficit* will be to increase it to around Rs. 10,000 crores.

M. Thangaraj: **Trends in fragmentation of operational holdings in India : An exploratory analysis**

Working Paper No. 95, October 1990, pp. 54

This paper seeks to examine the nature and trends in the fragments of operational holdings for rural India. The data with respect to number of parcels in the holdings and average *area per parcel* were collected from the NSS report, no. 144 (1961-62) and 331 (1981-82). The focus of the study was to present and compare the data at all India and at the state level. The result of the study indicates the average number of parcels per operational holding has declined and the average area per parcel has increased over a period of 20 years (1961-62 — 1981-82) at all India level. The state wise analysis shows that four states viz., Madhya Pradesh, Punjab, Tamil Nadu and Uttar Pradesh have made substantial progress in the reduction of fragments per holding and increase in the average area per parcel ; nine states viz., Andhra Pradesh, Bihar, Gujarat, Jammu and Kashmir, Karnataka, Kerala, Maharashtra, Orissa and West Bengal have made progress but not substantial ; and the other two states viz. Assam and Rajasthan have made no progress. Thus the result of the study shows that there was a reduction in the fragments per operational holding and increase in the average area per parcel and the problem of consolidation of holdings was not so acute in 1981-82 as in 1961-62. The author attributes the progress in the consolidation of holdings to the Government intervention through legislative measures, sale of land (fragment) to the contiguous land owner and voluntary exchange of land among the farmers.

S. Guhan: **Social Security Initiatives in Tamilnadu 1989**

Working Paper No. 96, December 1990, PP. 67.

The paper begins with a discussion of the role in India for protective social security measures which seek to provide guarantees or entitlements to those affected by specific contingencies such as unemployment, sickness, maternity, old age and death of the breadwinner in the family, by compensating them for the loss of income and/or additional expenses arising thereby. Against this background, the paper describes and evaluates a set of social security initiatives that were launched in Tamilnadu in 1989 with the advent to power of the DMK Government. These consisted of the liberation of (i) the old age and other pension schemes and (ii) the accident relief scheme. and new schemes for providing (iii) survivor benefits (iv) marriage grants and (v) maternity assistance to eligible beneficiaries belonging to households under the poverty line. Together these initiatives represent a major experiment in social assistance for poor families in the unorganised sector.

The evaluation estimates target population in Tamilnadu as a whole and district-wise in the first year of their operation. It shows that the number of beneficiaries under pension schemes—old age pensions, agricultural labourers pension, widows pension, deserted wives pensions and physically handicapped pension—has increased from 3.73 lakhs on 1-4-89 to 4.72 lakhs on 1-4-1990 i.e., by about 27 per cent. In the first year of operation, the survivor benefit scheme has benefited 20,990 families, 2.19 lakh women have received maternity assistance, and 19,687 girls have received the marriage grant. Assuming that 40 per cent of the population falls below the poverty line, the coverage under surviver benefit and marriage grant schemes represent about 60 per cent of the estimated target population while the coverage in the maternity assistance scheme is 90 per cent. Of the total beneficiaries under the pension schemes and the new schemes, 57 per cent are women. Inter-district differentials are broadly, consistent with variations in the poverty level. The total annual cost in these schemes (including the preexisting costs and the additional cost of the new initiatives) is estimated at 0.4 per cent of Tamilnadu's NSDP in 1989. It has been possible to contain administrative overheads to about 4 per cent of outlay because the schemes are implemented through the regular staff of the Revenue, Social Welfare and Rural Development Departments. The evaluation concludes with some suggestions for improving the iimplementation of the schemes.

The final section of the paper explores the possibility of introducing an all-India wide 'minimum relevant' social security package based on the Tamilnadu pattern, but confined to (i) old age and other pensions (ii) survivor benefit and (iii) maternity assistance. The annual cost of such a package is estimated at about Rs. 1500 crores or not more than 0.4 per cent of India's GNP in 1989-90. The paper argues, after a discussion of issues relating to adequacy, sustainability, affordability, and benefits, that such a minimum necessary package could be feasibly implemented with the costs being shared by the Central and State governments. What is required is the will to do so at the Centre following the model set by the DMK Government in Tamilnadu in 1989.

S. Janakarajan: **In Search of Tanks : Some Hidden Facts**

Working Paper No. 97, January 1991, pp. 38

It is needless to emphasize the significance of tank irrigation system since this is one of the most important sources from time immemorial in most parts of Southern India. The official statistics however shows that there has been a steady decline in the area irrigated by tanks over a period of time. The decline and decay of the tank irrigation system has been the subject of considerable discussion atleast since the middle of 19th century and of late, this issue has attracted the attention of policy makers and academicians a great deal.

Nevertheless, one crucial issue which remains largely neglected by all concerned is the aspect pertaining to the changing characteristics of water users, namely, their number, size of holding they operate, ownership pattern of land in terms of both caste and class, mode of cultivation, level of development of productive forces, development of alternate source of irrigation and so on. This calls for a thorough examination of factors which have contributed for the disintegration of traditional community maintained tank irrigation system or what is referred as traditional irrigation institution.

Basically, two sets of factors have been identified for the decline and decay of traditional irrigation institutions : They are physical / technical factors and institutional factors. While discussion at a great length takes place on the physical / technical factors, the discussion on institutional factors are either sketchy or nil. The set of physical / technical factors which have contributed for disintegration of the system are heavy silt accumulation and encroachment in the catchment area, inlet channel and in the tank bed, poor and damaged conditions of regulatory and control structures, neglected conditions of tank bund, inadequacy of funds for regular maintenance work and so on. The set of institutional factors are, changes in the land ownership from upper caste to hitherto cultivating castes ; increase in the sub-division and fragmentation of holdings ; development of well irrigation in the *nanjal* ayacut on a large scale resulting in the emergence of irrigation water a private property — a private property for those who have greater control over productive resources ; emergence of absentee land owners and so on.

This paper emphasises the point that these technical / physical and institutional factors do not act in isolation but they are complex and often interact.

Nasir Tyabji : **Industrial Development in South India 1880-1947.**

Working Paper No. 98, January 1991, PP. 98

British South India in the 19th and 20th centuries consisted of five major and distinct political entities—Madras Presidency, and the Princely States of Hyderabad, Mysore, Travancore and Cochin Conventionally, only Madras Presidency would be treated as part of "British" India; however in this paper, considerable emphasis will be laid on the fact of the relationship between the decision making autonomy in each of these political entities, and the fact that this autonomy was very largely determined by the paramount power—Great Britain through the Government of India which was responsible to the Secretary of State for India.

There was a further factor as far as economic policies, industrial development policies in particular, were concerned. This lay in the speed of development and in the growth of consciousness and articulateness of a business community, initially perhaps content with a purely trading role but increasingly assertive of its rights to enter the field of industry proper.

In this paper, industrialisation has been viewed as the process by which the business community accumulates, as reflected mainly by its control over a greater range of enterprises, though also by technological change within enterprises. Central to this process in a colonial economy such as India's, is a consideration of the developments within cottage or household industries. While historically, hand production on a small scale has usually been superseded by large scale machine production, there are also exceptions, due to the specifics of the raw material used or the nature of the finished article.

In colonial South India, there were four major industries of the household kind that need to be considered. These were the cotton handloom weaving industry (mainly in Madras and Hyderabad), the sericulture industry (in Mysore) and the cashew and coir industries in Travancore and Cochin. While the cotton handloom and sericulture industries represent "traditional" industries in that hand weaving and silk spinning have been undertaken in India for a very long time, the other two are of recent origin and are due to the initiative of colonial firms. Coir weaving originated in 1859, while significant cashew production started as late as 1925.

One result of the greatest importance that recent research has identified is that developments in these industries in terms of the ways in which production was organised depended not only on the nature of the market and the technology in use. Decisions on whether production was to be organised in the homes of producers, or in centralised workshops, and on the different modes of payment in these arrangements had also to take account of the demands raised by a militant trade union movement. This was particularly the case in Travancore, and in both the cashew and the coir industry, there are examples of a phased retreat from more organised forms of production in workshops to that of household based production. On the other hand, in the handloom industry there was a certain growth of production in centralised organisations, even though aggregate employment in the industry fell. In other words, the processes of industrial development are not only made more complex by the presence of the household industries, but within such industries the processes were often quite distinct.

South Indian industry which, at the time of independence, was showing faint signs of progressing to the stage of chemical based technology, was predominantly based on the production of agriculture based consumer goods. Ferrous metallurgy could not develop in the absence of suitable coal deposits, inspite of the large scale presence of iron ore. The problems of attempting to overcome this handicap were well shown in the example of the Mysore Iron Works. In Travancore and Cochin, the absence of even a medium section of indigenous industrialists made the diversification from coir and cashew to modern industry precariously dependent on public sector investment, or on the slim possibility of attracting large capital to a geographically isolated part of the country. In Hyderabad, an acute political struggle against the Nizam's autocratic regime dominated all other issues until the formation of Andhra Pradesh State almost 10 years later.

All-in-all, pre-independence industrial development had left an uneasy legacy for post independence South India.

Padmini Swaminathan : **State Intervention in Industrialisation : A Case study of Madras Presidency**

Working Paper No : 99, January 1991, pp. 57.

This paper traces the controversy that arose in the Madras Presidency between the English mercantile community and the State Government over the issue of manufacturing in jails which the mercantile community dubbed as State competition with private enterprise.

We begin with a documentation of the principles and policies enunciated by the Government of India periodically modified to take into account,

(i) Governmental requirements in terms of making the jail pay for its own upkeep ;

(ii) Prisoner's requirements in terms of making them work not only for their own maintenance but also in the process equipping them with some industrial skill in the hope that this would help them in life after prison ;

(iii) The need to keep interference with private enterprise to the minimum.

Our next section deals with the functioning of jails in the Madras

Presidency ; the specific policies enunciated based on the Government of India's guidelines, the Committees set up in the State to deal with this matter, the periodic reviews undertaken not only to streamline the functioning of the jails in the Presidency but also to expand the manufacturing activities given the Provincial Government's commitment to foster and strengthen jail industries.

In the third section we enter into the controversy proper between the Government and mercantile community over the whole question of 'undue' interference by the State, with private enterprises. The details surrounding the controversy document :

(a) The utter insensitivity of the commercial community (and therefore their selfishness) to the whole question of reformation of the prisoner as revealed in their insistence on the point that "jail labour ought to be before all things *penal*" (emphasis added) ;

(b) The differing perception of the mercantile community and Government officials (both British) over the question of the role of the State, and the admissibility of the latter's intervention in areas that the English commercial community asserted belonged to the domain of the private sector ;

The controversy spanned a period of almost four and a half to five decades. We begin our discussion with the Resolution of the Government of India on the issue in 1886 and end with the beginning of the Second World War by which time the intensity of the controversy had petered out.

Padmini Swaminathan : **State Intervention with Private Enterprises : Case of Manufacture in Jails in Madras Presidency**

Working Paper No : 100, January 1990, p p. 44.

This paper aims at exploring at the regional level, in a concrete manner, the attempts made by the provincial government of the Madras Presidency largely on the initiative of one of its officials, Alfred Chatterton) to foster some form of economic development through a demonstration of the commercial success of certain lines of business pioneered under state patronage, and through its concern for developing industrial education in the State. This initiative on the part of the provincial government brought it into sharp conflict with the European mercantile community of the country in general and of the province in particular who saw in the action of the state, a threat to their own interests. The analysis of the tension created between the provincial government and the mercantile community over state pioneering/promotion of industries brings into sharp relief not only the differing perceptions (over the role of the state) between officials and businessmen (both British) *within* a province, but also the difference in perception *between* a provincial government and the imperial authority.

It is also the proposition of this essay that this intervention of the provincial government cannot be reduced to merely a case of benevolent state action. In the first place the state (and specially its most vocal spokesperson, Chatterton) perceived its action as being primarily an attempt at securing the preconditions necessary for (colonial) capitalist development in the long term interest

of the British nation. Secondly, Chatterton, while taking on the combined opposition of the British mercantile community and apparently emerging as the hope of the Indian business and political community, nevertheless symbolized the dominant viewpoint held by the British of Indians as a backward, superstitious, indisciplined nation, which, therefore, justified the need for rapid enactment of reforms based largely on western political, social and economic theory.

The rest of the paper is divided into separate sections, each dealing with a specific activity, which was either initiated, developed and/or in which Chatterton had a major role to play. This segmentation enables discussion of the individual and peculiar problems of each of the activities, the depth of Chatterton's understanding of the problems and his reaction to each, the degree of state intervention and concomitantly the degree of controversy surrounding each (given the strong opposition of the European mercantile community to what was termed state-sponsored industrial activity).

The final section highlights the controversy at the national level leading to the eventual closure of the industrial department of the Madras Presidency. The period covered in the paper spans two and a half decades (1890 - 1915) roughly from the time of Chatterton's active involvement in industrial activity of the province upto the loaning of his services to the Mysore Government and the setting up of the Indian Industrial Commission.

S. Thirumalai Velayutham : **Property Rights Theory — A Survey of Recent Literature.**

Digest Series No. 6, November 1990, pp 50.

In this survey we have attempted a critique of different approaches of the New Property Rights Theory on the problem of resource allocation.

On resource allocation, the neo-classical paradigm held the view that 'market mechanism' would be the efficient allocater of resources. The logic of competition suggests that market could solve the problem of resource allocation through exchange prices, while discussing the various market possibilities. However, the issues such as public goods, externalities, transactions cost etc., could not be handled effectively by the market forces. The proponents of the 'Property Rights School' (PR School) in their new approaches found an effective alternative in solving the problems arising out of public goods, externalities etc.

The PR School believed that the neo-classical paradigm could be improved upon by retaining its basic elements such as rationality, competition and scarcity and by incorporating into it the elements of property rights paradigm such as 'inter-connectedness of ownership rights, incentives and economic behaviour'. According to this school, the 'property rights' are as fundamental to economics as rationality and scarcity. The function of property rights is to create incentives so as to use resources efficiently. Of the 'liberal concept of ownership' and 'free market' the PR School focuses and concentrates on 'market intricacies', leaving out the 'ownership question'.

The approaches of different schools of thought varied significantly ; however the unifying theme in the body of iiterature has been to find a solution to the ecocomic problem of resource allocation by putting into it the 'private property structure' and within the scheme of neo-classical production and exchange analysis. The PR School points out that exchange solutions to the resource allocation problem reflect a distribution of income determined by the existing structure of property rights and knowledge-base that determines the preference for production technology.

There are three major schools of thoughts : viz., neo-classical school ; (which we have discussed earlier) the public choice school ; and the Austrian school of economics. The public choice theorists relate individual maximising behaviour to the choice of social rules by replacing individual voting behaviour. In their framework property rights matter in the sense that, the well-defined, enforceable and transferable property rights are essential for efficient allocation of resources and for the avoidance of 'market failure'. To them, property rights themselves are a product of 'market'—like forces. The Austrian School is characterised by extreme individualism in its methodology. Rational maximising of profits and utility by firms and agents respectively are assumed as found in the neo-classical main-stream. To them, two classes of 'endogenous' institutions of paramount importance are the 'market' and the' system of property rights'. The market system is seen as a process in which individuals voluntarily interact with one another in pursuit of their own interests with appropriately designed (such as well-defined and enforceable) property rights. The freedom of contract, freedom of exchange, and the enforcement of contracts with the self-interested behaviour generate a spontaneous order. In brief, unfettered market exchange maximises the freedom of choice.

In order to provide a single analytical framework and to extend the scope of mainstream economics, a 'theory of State' has also been developed by a member of the school which removed a gap that existed in the mainstream economic analysis.

Some of the methodological deadlocks found in the neo-classical paradigm, especially the individualistic approach to the society have also been examined in the paper. Further, the inconsistencies in assuming away the existence of an initial 'property structure' and maintenance of 'status-quo' has also been highlighted. The individualistic notion of the society negates the aspects of social stratification, either in terms of classes of individuals or their differens social roles in fact, remained alien to the neo-classical approach. Howevert these approches have also made some significant positive contributions on the existing body of knowledge on 'efficient' allocation of resources. For example, the existence of transactions cost has been brought to light.

Our main contention in the paper is to point out that 'the problem of property' is not as simple as it is reflected in its exchange relations alone, as envisaged by the PR School. The scientific view of 'property' should encompass its objective basis in social production which is crucial to an understanding of the content and of 'property. The right in property is an outward or external manifestation and is only a reflection of the economic content of property. It is secondary to and derivative from 'property as a social relation.' Being a nominal reflection in the human consciousness of real economic relations among people, the rights very often distort as well as reflect the economic content of property.

Property is primarily an economic phenomenon and not a sum total of objects or their material values in someone's possession. The subjective motivations of human activity (economic) alone are not sufficient to understand economic relations, because production, distribution, exchange and consumption are inter-connected phases of one and the same reproduction process. The relations among people in the above mentioned phases of material values depend on their relations in production. The PR School fails to examine the underlying objective causes of these economic activities in the mode and form of appropriation of material values viz., 'property'. Further, as an extension of this failure, the 'social types of Property' is also ill-conceived as non-existent or inefficient. Thus the paper has examined all these' cases of Property' and has recognized that the form and content of 'property, are epoch-specific and not eternal.

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