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Working Paper No.87

Mid Year Review of the Economy 1988-89

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Prolegomena

This year's mid year review of the economy is dominated by two events - CSO's revised National Account Statistics published in 1986-87[1], and the national drought also in 1986-87, which will be analysed in the next section on the Economy. The revised CSO series, which is an exercise undertaken every 10 years, shifts the base from 1970-71 to 1980-81, uses some new data and makes some changes in the methodology used. The shift in the base year in establishing the index of industrial growth was noted and reviewed in last year's mid year review of the economy and mid term assessment of the Seventh Plan.[2] The revised series, used in this note, covers gross domestic product (GDP), net national product (NNP), private final consumption expenditure, gross capital formation, and savings. The new data used includes the use of actual data instead of ratios and proportions indicated by surveys. Consumption of capital is not based, as in the old series, on the depreciation set forth in the financial accounts of companies, but on the value and life of the assets as recommended by the working group (K N Raj) on savings.[3] This has involved, as will be seen in the analysis later, an upward revision of GDP and private final consumption and a downward revision of Gross Domestic Capital Formation and Savings. There are some technical issues raised by this revised series, such as the lack of distinction between repair and maintenance and capital consumption, but for purposes of this annual exercise of the Mid term Review of the Economy, there is a serious problem of discontinuity introduced by the new series which calls rather urgently for CSO developing long term estimates,

which will also make the new series and estimates comparable with the past data and series. This is a time consuming task which needs, however to be undertaken, using the chain index methodology.

The sources for the accompanying analysis in this note are mainly official ones - the reports of the Central Statistical Organisation and surveys of the National Sample Surveys, the Annual Reports of the ministries and departments and some public sector enterprises, the Annual Economic Survey of the Finance ministry, the two reports - Annual and the one on Currency and Finance, the monthly bulletins and the occasional papers of the Reserve Bank of India and the Indian Labour journal. With regard to this set of sources, there are the usual problems of the data being outdated as in the case of that relating to exports, imports and balance of trade and current accounts, which are issued by the ministries of commerce and finance some 18 months to 30 months after the event: the differing accounting years as between the departments of government and the Reserve Bank of India: the lack of coincidence between the various agricultural years - that for sugar, that for cotton, that for wheat and paddy etc and the financial year: and some resulting inconsistencies as for instance of the 38th round of the NSS on unemployment estimates of the 5+ of the population and its estimate of the families living below the poverty line (to be elaborated later). An effort has been required, which has not been complete, to fill these gaps and correct the overlaps and contradictions. The data in the note also draws on the voluminous material put out by the Centre for Monitoring Indian Economy as well as the results of the surveys of the National Council of Applied Economic Research and analysis of the Economic and Political Weekly, Commerce, Yojana and the Indian Institute of Public Opinion Research.

This drawing on unofficial data becomes imperative as the official reports and data stops at the second quarter of the previous year - around September 1987. Sometimes the data is reported upto January/February 1988. There is no official data for most sectors for the current year, 1988-89 which is the subject of this mid year review. This gap is filled by drawing on a) official projections for 1988-89 and beyond, b) the monthly reports for 1988-89 from CSO available with a 3 to 4 month's delay, and c) the studies, surveys and reports from the non official (economic research) agencies referred to earlier.

There is also the fact that the year under review, 1988-89, is the penultimate year for the termination of the Seventh Plan. It was also the year at the start of which, at long last, the Planning Commission issued its Mid Term Appraisal of the Seventh Plan, which sets forth certain rather disturbing but realistic conclusions, on the basis of trends operating in the first 3 years of the Plan. These conclusions are influencing to some extent the course of the economy in the current year, as well as in the terminal year of the Plan and have to be taken into account in this note.

Apercu

A brief summary of the 1988-89 prospects for the economy is attempted. The current year, 1988-89 will be, should be, a year of rehabilitation of the agricultural sector, which declined -5.5 per cent, and the foodgrains production subsector by atleast 12 percentage points in 1987-88, the drought year. In 1988-89 there will be a bounce back in agriculture and foodgrains production - as not a single one of the 15 meteorological districts has not had an over abundance of rainfall. In the euphoria that is caused by this bounty, and the bounce back of agriculture, it must not be forgotten that 1988-89 should be a year of consolidation and repair - to consolidate and build into our plans - annual, five year and perspective - that drought is now the normal conditions facing our agriculture.

For industry, particularly the manufacturing sector, 1987-88 recorded a slow down from the 9 per cent growth in 1986-87 to 7.6 per cent. The effect of the drought particularly on manufacturing raw material and the rural demand for manufactures will be felt in 1988-89 and may result in some further slowing of its growth.

The infrastructural sector will display a mixed record. Because of the bounteous monsoon, the hydel reservoirs this year are full and hydel power generation will, after a 3 year gap, make an important contribution to meeting the power demands of agriculture and industry. Coal supplies will be adequate, except in the matter of coking coal. Transportation - both railways and road - will expand during the year. It is in regard to crude that the prospect is daunting: domestic production has hit a plateau of

32 million tonnes for the past two years, while domestic demand is increasing rapidly at over 42 million tonnes, involving a foreign exchange outgo in importing crude and petroleum products of Rs4500 crores to Rs5000 crores a year. There is need to cutback on crude consumption.

The price situation is not comfortable. 1987-88 recorded a 10.4 per cent rise in the wholesale prices index and from 8.2 to 14.8 per cent in the consumer price index. While a good agricultural harvest will improve the supply side on the price equation in 1988-89, the demand side represented by bank credit, fuelled by thevery large deficit in the 1988-89 budget and the increase in government's consumption expenditure will exert an upward pressure. However, if the liquidity of the economy is curbed, wholesale prices should not rise above 9 per cent and consumer prices at 8-9 per cent during 1988-89.

CSO has revised the national accounts and related data, using 1980-81 as the base year, and introducing some needed methodological changes. One disturbing result of this revision is that the country's net savings has fallen to 12-13 per cent of the Net Domestic Product. With large scale capital destruction involved in the 1988-89 floods, and the heavy consumption of capital pushed forward by 1987-88 drought, the net savings in 1988-89 will continue at this low level of 12-13 per cent NDP. This is inadequate to finance the investment in agriculture and allied industries like irrigation and in power and management, so that in 1988-89 the resource crunch will continue and worsen.

Another area of concern in 1988-89 is the growing large trade imbalance which is now touching Rs10,000 crores, with the balance of payments showing a negative Rs6,000 crores. This alongwith the sharp fall in our foreign exchange reserves is going to force government to cut back on imports, including capital goods imports which have been surging over the last 2 years. Exports will be given further incentives and concessions, but its rate and volume of expansion will not be adequate to keep down the heavy deficits in trade and balance of payments.

On the basis of the bounce back in agriculture and the good performance in power and infrastructure generally, even with the slight tailing off of industrial growth, the overall growth of the economy in 1988-89 will be 8-9 per cent. This is on the low 1987-88 base of 2.5 per cent, which if corrected will make the 1988-89 growth nearer 4 to 5 per cent.

What does all this mean to the three crucial problems of employment, poverty and inequality. 1988-89 ought to rehabilitate in employment to some extent the massive under employment and unemployment caused by the drought in 1987-88. Similarly, the agriculture and beneficiary oriented programmes should in 1988-89 pull up the millions of families which were at or above the poverty line, and which plunged below it as a result of the drought. They should be given the assistance to be self-supporting and rise above the poverty levels. The inequality situation - both in rural areas (as recorded by RBI's All India Debt and Investment survey 1980-81 and as reflected in the lack of land reforms) and in the urban industrial area as reflected in the movements of the stock exchange and capital market will unfortunately continue unchanged.

Economy

The Economy at this mid year point is still dominated by the after effects of the worst drought that the economy has suffered in 1987-88 since planning was begun in 1950-51. The four earlier droughts in 1965-67, 1973-75, 1979-80 and 1982-83, of which the first contributed to the 1966 devaluation of the Rupee followed by the Plan holiday during 1967-68 to 1969-70, do not seem to have taught us the necessary lessons, except that of the building of a buffer stock in foodgrains. The main effect of the drought has been to create famine conditions in the states and areas of states, which have had no agricultural production. While drought is an act of nature which can and must be provided against, famine is the result of prevailing agrarian and societal relations, under which the mass of landless agricultural labourers and their families belonging to the wage earning/share cropping class face a sharp and sudden fall in what has been vividly described as their 'entitlements'.[4] The secondary effect of the drought is in regard to manufacturing growth. Studies show that a 1 per cent decline in agricultural production results in the following year in a 0.5 per cent fall in industrial production and 0.7 per cent in GNP. The effect of the drought which has caused a 5-6 per cent decline in agricultural growth in 1987-88 and a slow down in industry in the last quarter will be further seen in the 1988-89 record. With the good south west monsoon during the current year, there is a tendency to leave droughts outside of our planning process. Further various estimates are being made to show that the effect of the drought on foodgrains production in 1987-88 which was originally computed as involving a reduction of 10 to 20 million tonnes[5] is not so serious, and

is only 6 to 7 million tonnes short of the 1986-87 production of 144.07 million tonnes, according to the government[6] and 7 million tonnes according to NCAER.[7] These revisions of the effect of the drought on foodgrain production are strengthening the trend towards complacency, passing over the fact that the five year cycle, which involved the economy in 3 years of normal monsoon followed by 2 years of drought has turned around to 2 good years being followed by 3 bad years. In fact since 1982-83, the economy has experienced 4 years of partial or full drought, which points to the need for drought protection being built into the economy, and drought in some form becoming part of Planning, inn place of the hitherto facile assumption of a normal monsoon every year.

The drought has resulted in external aid being used for the first time for consumption purposes. A Japanese loan of 29.5 billion yen, the equivalent of Rs304 crores, has been used for importing edible oil. A US loan of Rs8-10 crores has been used to import butter oil for the Indian Dairy Corporation, 3,00,000 tonnes of edible oil and 4,00,000 tonnes of maize. Similarly EECs 20 million ECU, equivalent of Rs32.5 crores, is being used to import vegetable and butter oil. West Germany's 10 million Deutsch marks, equivalent of Rs7.8 crores, and France's 40 million Francs, equivalent to Rs9.1 crores, and Italy's $5 million, equivalent of Rs6.6 crores are used to import rape seed and rape seed oil. Sweden's loan of 50 million Swedish Kroner (equivalent of Rs10.0 crores) is used for importing edible oil. USSR has loaned 6 drilling rigs for exploring underground water resources. The World Bank has made available a loan of $150 million and IDA a credit of $200 million, (equivalent of Rs458.7 crores) for meeting relief expenditures caused by the drought.

The drought has resulted in a sharp reduction in the foodgrains buffer stock from 23.2 million tonnes in September 1986 to 14.14 million tonnes in December 31, 1987 and further to 8 million tonnes by June 1988. As the offtake from the stock is 1.8 million per month, which is a third over the normal, as the public procurement of wheat between 1 April 1987 to 18 March 1988 was 7.9 million tonnes (which was 25.2 per cent lower than that of the previous year) and rice procurement between 1 October 1987 to 22 March 1988 was only 5.9 million tonnes, (which was 27.2 per cent lower than the previous year) and in order to maintain the minimum level of foodgrain stock at the norm of 16.5 million tonnes (which the 1987-88 kharif and rabi price hikes were aimed at but did not succeed in attaining), 10 lakh tonnes of wheat and 5 lakh tonnes of rice were imported. There is nothing wrong in these marginal foodgrain imports to meet domestic production shortfalls, but there has grown up a tradition of using the term 'self' sufficiency in foodgrain production to refer solely to the annual level of production in relation to the target, with no reference to whether or not the needs of the people for foodgrains is being met. Infact this kind of 'self sufficiency' has been achieved by steadily and seriously reducing availability of foodgrains to the rural poor. The non coverage by the Public Distribution System of large rural areas where the landless labourer and marginal farmer live is one indication of the kind of 'self sufficiency' being attained.

The drought has also thrown up rather sharply a new problem - new as a nation wide problem - that of drinking water. There have always been villages in remote or inaccessible areas which have had no source of drinking water. With the heavy tapping of underground water sources during

the drought year and the drying up of reservoirs, the lack of drinking water has become an urgent urban as well as rural problem over most of the country, including the metropolitan cities of Delhi, Bombay, Madras, Trivandrum and Hyderabad.

The government has once more referred to the Ninth Finance Commission the problem of disaster relief in proposing a National Drought Fund which is to be a contribution by states (and for some reason not also by the Union government). What is needed is a National Drought Policy and a National Relief and Rehabilitation Agency to mobilise people, commodities and funds, and monitor programmes which can meet the situation of drought and floods which have become an annual feature of the economy.

The picture of the Economy at this mid point of 1988-89 is very different from that presented for the year 1986-87 by the government's Economic Survey which described the economy as "being on a higher growth path". Because of the good normal monsoon this year, there will be a bounce back of agricultural growth in 1988-89; that in terms of foodgrains availability and 'entitlements' to the masses of the people, in terms of repairing the damage to the manufacturing structure caused by the drought, the current year can become a year of repair and rehabilitation, if the planning process have incorporated into it the means of countering the regular periodic disasters - of drought and floods that an economy faces. Only then will the government forecast of an overall growth rate of 3 per cent (which in terms of a normal base would be 4 per cent) for 1988-89, be a means of strengthening the economy and meeting the wants of its people.

Plan

The annual growth rates for the first 3 years of the Seventh Plan as well as for the Sixth Plan period under the old series (1970-71 base) and the new series (1980-81 base) as avaialble are set forth in the table below:

Table I

	Sixth Plan		1985-86		1986-87		1987-88	
	Old Series	New Series	Old Series	New Series	Old Series	New Series	Old Series	New Series
Gross Domestic Product	4.7	5.1	5.1	4.8	3.8	4.0		2.5
Net National Product	5.3		5.1		3.9			
Per Capita GDP	3.1	2.5	3.0	1.8	1.8			

Source: CSO Economic Survey & RBI

On the basis of the low 1987-88 base of 2.5 per cent, and the good monsoon during the current year, the GDP growth rate for 1988-89 is likely to be between 7 to 8 per cent. This is also the RBI forecast.[8] (The World Bank and NCAER project a growth rate of 7 per cent, and government at 8 per cent for the year, 1988-89). A disturbing element in these growth rate forecasts - which is true also of this period 1980-81 to 1985-86 - is that the rate is kept up by the service sector contributing 56.3 per cent to GDP growth as against agriculture's 30.7 per cent under the old (1970-71 base) series and 47.8 per cent against agriculture's 18.6 per cent in the new (1980-81 base) series. Incidentally the decline in the contribution of the service sector is due to the adjustments made in the new series on it, and not because of any real decline in its contributions.[9]

The performance of the first 3 years of the Plan is set forth in the Planning Commission's Mid Term Appraisal. The short fall in agricultural production during these years (in relation to the annual targets) at 0.3 per cent, -2.6 per cent, -5.5 per cent respectively points both to causative factors of the weather, the lacks in irrigation, HYV coverage and fertiliser consumption, and to the even more serious problems of the thin margin left with the population growth continuing at a high 2.1 per cent per annum. The major message of the Appraisal is in regard to the double pressure on resources. On the one hand it points to the resource gap of Rs16,000 crores in the public sector (to which the private sector resource gap of Rs30,000 crores as computed by FICCI,[10] should be added). The above public sector resource gap must be seen against the fact that during the first 3 years of the Plan, the public sector's financing has involved deficit financing of Rs18,910 crores in the current prices against the Plan provision of Rs14,000 crores in 1984-85 prices, domestic borrowing covering 65 per cent of the Plan provision against the target of 45 per cent, and a diminishing public sector contribution of Rs11,708 crores compared to the Plan provision of Rs37,454 crores. On the other hand, the Appraisal's statement that the "pace of plan expenditure (was) satisfactory" needs to be queried in light of the fact that the 1985-86 Plan expenditure in current prices which was Rs33,000 crores, when deflated by the wholesale price index which on the 1984-85 base stood at 105.7 per cent in 1985-86 becomes Rs31,277 crores at 1984-85 prices; the 1986-87 expenditure of Rs40,261 crores in current prices when deflated by the WPI index of 111.3 becomes Rs36,173 crores in 1984-85 prices: the 1987-88 expenditure of Rs44,608 crores when deflated by WPI index for that year of 121.3 becomes Rs36,849 crores at 1984-85 prices. This means that the pace of expenditure, which stands at 66 per cent of the Seventh Plan

outlay at current prices becomes 58 per cent in 1984-85 prices, cannot be regarded as satisfactory.

The 1988-89 Plan stands at Rs47,798 crores which represents a 3.2 per cent increase over the Plan for 1987-88. The rate of increase in the Union Plan at Rs28,715 crores is 17 per cent, while the share of the states Plans records an actual decline from Rs9881 crores in 1987-88 to Rs9,714 crores in 1988-89, though states Plans increase from Rs17,585 crores in 1987-88 to Rs19,083 crores in 1988-89. This squeezing of the Plan at both the Union and states levels is due mainly to the runaway non Plan expenditure, which far from making available for its funding a surplus on Revenue account, actually uses capital account, resources (market borrowing). This issue of the non plan expenditure will be analysed in the next section on fiscal policy. One result is the inadequate provision for several items of plan expenditure, including those of power, irrigation and manufacture of wage goods.

Given the squeeze in resources identified by the Planning Commission, the current year's Plan faces a series of shortfall in power, in irrigation, in completion of the modernisation and diversification of large plants such as the steel plants as well as coal mines, railways and shipping services. There will also be a considerable spill over in these areas to the next annual Plan and the Eighth Plan.

There seems to be two contradictory forces at work in the Planning process.

On the one hand, the share of the Union Plan vis a vis that of the state is continually increasing. At the start of the seventh plan, the Union's share of the aggregate plan

resources was 55.16 per cent and already by the end of the fourth year of the Plan it will have surpassed 60 per cent. Further the Union Plan is constantly encroaching on the areas reserved by the constitution to the states(list II), and appropriates to itself a large share of the Plan resources in those areas: for instance, in agriculture which is almost wholly the responsibility of the states, the Union Plan provides for 39 per cent of the total agricultural Plan resources. Similarly in the area of village and small industry, the Union Plan's share is 46.47 per cent, in education, the Union Plans share of resources is 46.47 per cent, in rural development it is 54.02 per cent, in health and medical services, it is 26.45 per cent, in social and women's welfare, it is 79.02 per cent, and in family welfare, it is 100 per cent.

On the other hand the Planning Commission, which since the Second Five Year Plan, has been holding up as the ideal system of planning from below is making special renewed references to planning at the district level. In agriculture there is a kind macro-micro planning being attempted, with the country being divided into 12 agro climatic zones, with the 6 lakh villages being classified into developed, developing and undeveloped villages, and with farms grouped into those which benefit from irrigation and those which are rainfed. There is another classification which is ignored but which is the governing precondition for local level planning, and that is to recognise the fact reported by the 1980-81 agricultural census that 56.5 per cent of operational holdings account only for 12.2 per cent of the farm lands, while 2.4 per cent of holdings operate 29.8 per cent of the area, that the average area of a marginal holding is only 0.33 hectares compared to 17.36 hectares of

the average large holding (52 times larger). In other words, district level planning, if it is to be more than an exercise in verbosity, requires first a less inequitable agrarian system of relations and structure (which will avoid all benefits meant for the 90 per cent poor flowing to the well to do) and on that basis, a democratically elected local government and authority. Of India's 22 states, only in five states have local elections been held, while in the others, elections have not been held for 10 to 20 years. If there is real agrarian reform (as is being attempted in one state), the local authority (which will not be loaded with the rural rich) can plan realistically for the region and operate the plan more fully, provided further the state government allocates the areas for the district/block plan, makes available the necessary funds and the required planning expertise. The BDO and the Development Commissioner can provide the local body with the operational assistance in executing the Plan. At present only in one state are all these conditions for local level planning met.

The planning commission is also engaged in a number of exercises - in terms of strategy and of sectors and sub sectors planning for the Eighth Five Year Plan. The strategy revolves around the rate of growth - overall, agricultural, industrial and power - that should be planned for. The exercises and scenarios for the overall growth of the economy range from 5 per cent to 7 per cent, for agriculture from 4 per cent to 6 per cent, for industry from 8 per cent to 12 per cent, for power from 5 to 7 per cent. As will be noted later, an adequate growth rate - which the World Bank places for India at 5 per cent - is a necessary but not sufficient condition to reduce the poverty condition of the people. Given the current political socio economic and administrative situation, the key to the size of the Eighth Plan will be the

level of resources which can be mobilised for it. Since the Fourth Plan, the outlay for each five year Plan has been doubled. This policy has now brought the economy to the end of the road, as noted earlier. We might start the Eighth Plan exercise with some agreement on the level of resources that can be raised and will be available for executing it.

A major lacuna of the Plan continues to be its non coverage of the underground economy, which means that plans, programmes and transactions equalling somewhere between a third to half of the regular economy covered by the Plan are outside the framework of the Rs47,798 crores of the Annual Plan and Rs1,23,000 crores which extends over both the non plan and plan activities for 1988-89 of the Union and states. This free wheeling of some Rs40,000 to Rs60,000 crores outside of any plan priorities, control or direction may be one reason for the growing gap between the economy's attainments and its targets, aims and objectives.

Fiscal Policy

In the field of fiscal policy, the two major events in this year are the budget for 1988-89 presented to parliament in February and approved in the Appropriation and Finance Bills in May 1988, and the working of the Nineth Finance Commission.

The budget for 1988-89, which was hailed by industrialists, shareholders, rural and urban well to do as a soft budget because it did not enhance taxes and seemed to offer a number of indirect tax concessions, has had built into it many disequilibrating features which the table below summarises :

Table II

(Rs crores)

	1985-86	1986-87	1987-88	1988-89
Plan Expenditure	33,000	40,261	44,608	47,798
Non Plan Expenditure	35,496	41,965	47,844	54,642
Revenue from Administered price increase	704	962	1,204	2,400
Revenue from direct taxes	704	798	856	690
Revenue from indirect taxes	35,412	40,930	47,280	54,569

Source: Budget documents

The most serious feature is the high rate of increase of non-Plan expenditure at 13 per cent over the already high revised non plan expenditure for 1987-88. This increase is due mainly to four factors, three of which were controllable but which were not. They were expenditure on defence, on subsidies and on public administration - all of which could have been, sharply reduced; the reduction in defence outlay following from application of cost effective scrutiny, not involving any reduction in the defence preparedness of the country. The fourth is the expenditure on interest and amortization payments which could have been stabilised by a national policy of market borrowing. Other-wise as both an RBI study[11] and the Comptroller and Auditor Generals Report for 1986-87[12] warn, by 1992-93 net market borrowing may not be adequate to meet the interest payments on market borrowing: in 1988-89 the estimated borrowing will be Rs7000crores and interest payments Rs7027 crores; in fact at present level of aggregate borrowing which is reducing the time period for repayment of the loans, increasing the rates of interest and use of the loans for meeting the government's non development expenditure, their date, which in technical terms, marks the economy being involved in a debt trap, may be nearer than the one forecast.

Another feature of the budget, as a consequence of the accelerating non plan expenditure, is the increase both in 1988-89 and overtime of the deficit on revenue account and of the overall deficit of the budget as the table below shows:

Table III (Rs Crores)

	1980-81	1985-86	1986-87	1987-88	1988-89
Deficit on Revenue account	1702	5565	7579	8497	9842
Overall budget deficit	2576	6943	8261	6080	7484

Source: Annual Budget documents

The revenue deficit of Rs9847 crores for 1988-89 is being met from the capital account (market borrowing) upto 30 per cent (Rs14,104 crores as compared to the market borrowing of Rs2604 crores in 1980-81) and the balance through deficit financing which increases the volume of reserve money and so fuels inflation. RBI had already had to face a seven fold rise in reserve money to Rs3600 during April-September 1987-88 which led it to raise the credit reserve ratio (CRR) by 0.5 per cent to 10 per cent. It faced a further increase in reserve money between March 31 to July 1, 1988-89, and a sharp rise in M_3 by Rs11350 crores, which led it to take the rather unusual step of raising CRR twice in one month, from 10 per cent to 10.5 per cent on July 3, 1988 and from 10.5 per cent to 11 per cent on July 30, 1988.

The increasing trend of the revenue deficit stands in stark contrast to the profile of revenue deficits set forth in the long term fiscal policy document[13] under which the

revenue budget will be in balance in 1987-88, with zero deficit, and will record a revenue account surplus in 1988-89. This projection could have been realised, if in addition to the reduction in non plan expenditures referred to earlier, therehad been some effort to raise revenue from taxes. Instead, the usual device developed in the last 5 years of raising administered prices,[14] was resorted to in the case of coal, steel, fertiliser, aluminium, paper and petrol to raise Rs2400 crores in 1988-89 as a means of keeping down the level of the budget deficit presented to parliament in the budget for 1988-89. This revenue from administered prices should be compared with the Rs690 crores proposed to be raised in the 1988-89 budget through taxations. This revenue from taxation in the 1988-89 budget is to the extent of 87 per cent, from indirect taxation, which increases the regressive nature of the tax system. Within direct taxes, the income tax continues with a high exemption level and low rates on the various slabs. The justification for this all round lowering of the income tax is that it promotes honesty in tax decelerations and payments. To support this contention, the increased revenues from direct taxation is produced as evidence. But this argument now rests on insecure grounds, as the increase in tax revenue fell sharply from 10.2 per cent in 1986-87 to 2.8 per cent in 1987-88. Even the higher revenue figures for 1985-86 and 1986-87 are due to improved collections during those years, and to the continuous amnesties being declared to undeclared, underground wealth and income owners. Even the indirect tax system is not exempt from this pro rich bias. The excise concession of Rs243 crores for man made fibres, for example, will benefit the well to do. In view of the current resource crunch, the present finance minister states that this concession may have to be withdrawn.

The Ninth Finance Commission had a controversial start asits membership and particularly its terms of reference were established, unlike those of the previous 8 commissions, without any consultation with the states.

There is wisdom in the recommendation of the Sarkaria Commission[15] to reconstitute the National Development Council into the National Economic and Development Council to be responsible for policy on all planning and development, and to give it a constitutional status under Article 263. This will also make it feasible to undertake the informal consultation with the states that it recommends, in settling the terms of reference of the Finance Commission. The terms of reference of the Ninth Commission which have attracted attention are: the normative approach which it is required to adopt in assessing the revenues and expenditure estimates of the Union and states, which will replace the past methodology of projection of receipts and expenditures on the existing basis; the review of all revenue expenditures, both plan and non plan; the providing of incentives for resource mobilisation and observance of fiscal discipline: and considering the feasibility of merging additional excise in lieu of sales tax with the basic excise tax. The states are concerned with the target of balancing the revenue accounts of the Union and states by 1994-95, as it affects their resources, and as the recommendation is made in a year when the revenue deficit has increased by 25 per cent: and further while there are the usual RBI and Union finance ministry sanctions to ensure conformity by the states with the Finance Commission's directives, there is no such machinery to ensure the Union conforming to the commissions' directions. On the other hand, it hasbeen rightly pointed out that the two innovations in the terms of reference are a result of past criticisms of the terms of reference and reports of the commissions: in the case of the normative approach as a

as a replacement of the projections of existing receipt and expenditures, and in the case of covering all revenue account, plan and non plan, as a replacement of the much criticised gap filling approach.[16]

The Commission has submitted in August its interim report to cover the year 1989-90. That report seems to be largely an extension of the recommendations of the eighth commission, though it states that it arrived at the revenue and expenditure of the Union and states on the basis of certain norms, without making clear what the norms are. It recommends continuing the state's share of income tax proceeds of 85 per cent and the existing 45 per cent of the proceeds from shareable excise duties. One important recommendation it makes is that if administered prices are raised for revenue purposes, it should be done through excise duties so that states can get their share of such increases. There remain some hard issues which the commission has to work on for its final report, and its consultations with the states should help in this process. These questions include: a) the content of an objective, feasible and acceptable set of norms: b) judgements on the level of certain proposed expenditures, including that on defence and administration at the Union and the so called populist programmes at the state's level, such as the Rs2 a kg of rice as a means freeing bonded labour: c) the potential revenues from a higher level of income tax, agricultural income tax and professional tax: On these the Sarkaria Commission has made an inventory of the possible new sources of revenue and left it to an expert committee to study them and come up with recommendations: d) the relative weights of the funds to the states from devolution and grant in aid. In this connection, it may be noted that the Sarkaria Commission has recommended that the constitution be amended to provide for sharing of the corporation

tax and levy of tax on advertisements in broadcasting. For 1989-90 the commission recommends transfer from the Union of Rs11,785 crores through devolution and Rs1818 crores as grants: the Commission has allocated Rs50 crores each to Bombay and West Bengal for slum improvement, whose matching will raise for West Bengal a serious problem of transferring funds from some other possibly higher priority; and more importantly raises the question of the basis of this priority by the commission; and the reasons for not covering the slums of Madras, Bhubaneswar, Kanpur etc: if the norms used, are not going to further skew the already skewed Union-state's financial relations: e) there are the perennial questions of transfers under Article 282 and debt relief: f) there is the need to devise machinery to enforce its directives with regard to the Union: and g) the question of balancing the budgets and eliminating deficits which can be done only if there are certain fiscal policies (such as raising of direct taxes and levy of agricultural income taxes) and general overall policies (such as these relating to defence expenditures and subsidies), as otherwise the commission can only redistribute the deficits as between the Union and the states and among states, and not eliminate them by the date indicated - 1994-95. Actually for 1989-90 unless both the Union and states increase their revenues and reduce their expenditure, the commission's recommendation of limiting the Union's revenue deficits to Rs7994 crores and that of the states to Rs1443 crores will not be attained.

Three other matters of fiscal policy need some comment. One relates to the supplementary budget demands presented to parliament. Already in 1988-89 two such demands have been presented one of which is for Rs1593.04 crores amounting to 5 per cent of the year's budget approved in the Appropriation bill. This raises the question whether this was a case of

loose budgeting or one of setting aside those expenditures at the time the budget is formulated in order to keep the deficit figure down. Further the demands on particular items do not always add up as between the amounts requested and the explanation offered for their expenditure. There is also the question of certain decision made by government and/or approved by parliament, not being incorporated in the demands - as is the case of the decision to cut non plan expenditure by Rs600 crores in 1987-88. Finally the source of financing the demands is not always clear. The extent to which they contribute to the revised higher budget deficit needs to be clarified. There is need to agree on using this instrument only in case of real unforeseen emergency.

The other fiscal event is the benami ordinance issued in June 1988. As formulated, it is both redundant and not comprehensive. It repeats and overlaps with the sanctions set forth in the income tax Act and the Indian Penal code as far as identifying fraud and rewarding the punishment which follows. On the other hand it does not cover the massive benami transactions which operate under cover and which involve multi million dollar commissions, terminal payments etc, in the name of fictitous companies and persons.

Finally there is no report on how the two most important recommendations of the report (Sukhumoy Chakravarti) of the committee to review the working of the monetary system are being implemented. These relate to a) monetary targeting and b) the statement on deficit financing as shown in the books of RBI. Both these raise the question of confidentiality (at least as far as the current operations are concerned) and

are related to the question of the level of food and non food credit made available by the banks, the policy and practice on budget and financial deficits, and c) the encouragement given to the underground sector through the governments' decisions on various forms of amnesties for those operating in that area - the Indira Vikas Patrika being the latest example of them.

Debt

Reference was made in the previous section to the prospects of interest payments exceeding the annual borrowings, leading to an internal debt trap in the early years of the next Plan. Being internal, which means that it is a debt that we owe to ourselves, it should be self cancelling, but as the debt is used not for building capital assets but for consumption purposes, it is both unproductive and self perpetuating. One of the disturbing features of the country's debt is its high rate of increase - from Rs10134 crores in 1961-69 to Rs29,041 crores in 1977-78 and rising steeply to Rs161,029 crores in 1987-88. Another way at looking at the growth rate of public debt is to note that the Net Aggregate Internal liability of the government has between 1968-69 to 1985-86 increased at 22.7 per cent compound rate from Rs1662 crores to Rs53,546 crores. The domestic public debt is composed of two parts - the internal debt owing to the Banks and other borrowings from the small savings account, Provident Fund etc, which disturbingly is increasing at a higher rate than the former part. Further the maturities of securities is also increasing from 26 per cent of the public debt being above 15 years as at March 1969 to 64.3 per cent at March 1986, which is an indication of the rate at which the burden of the debt is being transmitted to the next generation. During this

period the nominal per capita debt increased by 20 per cent and in real terms by 11.2 per cent. Finally it should be noted that almost all (99 per cent) of the government borrowing is from a captive market - the Banks and Financial institutions, so that the large public debt does not represent a large scale mobilisation of household savings, as expressed, for instance, in their subscriptions to government securities. When and if the recommendations of the report of the Committee to review the working of the monetary system, particularly on monetary targeting and deficit financing are accepted, the Reserve Bank will no longer serve as the institution absorbing the residual portions of the market borrowings.

India's external debt stands at Rs25,539 crores as on 1988, as the table below shows.

Table IV

(Rs crores)

1980-81	1985-86	1986-87	1987-88	1988-89
11,295	18,153	20,299	22,518	25,539

Source: Economic Survey 1987-88,
OECD, World Bank

Apart from the large volume of the external indebtedness and the accelerating growth rate of the debt, one serious issue is that official information in India's external debt is really not available, except with an 18 to 24 months time lag which makes the information dated. Thus the present (in September 1988) official information is that set forth in the Economic Survey for 1987-88 which reports that India's external debt servicing upto September 1986 was Rs1176 crores.[17] The result is that the country's external debt situation has

to be gleaned from foreign sources such as OECD which reports India's external debt at $43 billion in 1986 December.[18] The World Bank report that India's debt service ratio has in 1987-88 passed 25 per cent (the government's Economic Survey says that it is 23-24 per cent in 1987-88) and the interest payment of foreign debt was, $1.8 billion. The World Bank also reports that because of India's declining access to concessional borrowing, (concessional borrowings except from IDA are tied loans which more than make up for the low interest rate and the amortization period concessions by the higher import prices charged), it is increasingly relying on borrowing from the world commercial market and on non concessional terms. This has resulted in commercial borrowings rising from 6.5 per cent of total external borrowing in 1975 to 27 per cent in 1987, doubling the average interest rate paid and reducing the period of amortization from 30 years to 22 years.[19] It is difficult to analyse the external debt situation of the country with this kind of piecemeal information made available by foreign sources on an ad hoc basis. Authoritative upto date information on the country's external indebtedness should be provided in the Economic Survey and brought upto date in statements to parliament during the year, so that country's external resources position can be suitably analysed and judged. For instance, the unexplained sharp decline by Rs1905 crores in the country's foreign exchange reserves in the first quarter of 1988-89, from Rs7287 crores in April 1988 to Rs5382 crores in July 1 (which is also equal in the NRI/FCNR deposits), cannot be explained or understood except against that type of official information on the country's external assets and liabilities position. A further complication is that such figures on our external debt as are given by the government are based on exchange rates on the date of drawal of the loan. As the Rupee is continuously depreciating, the debt in terms of the rupee keeps rising.

Stock Exchanges

The stock exchange continued the rather wide fluctuations in the activity and in prices of shares during 1987-88, and into mid 1988-89 - declining in June 1987 rising in August, declining in September, rising in January 1988, declining and remaining stagnant in February and March 1988, after which there was a sharp pick up till June after which there was a brief period of decline, with the market recovering sharply in July 1988 and continuing so to September.

What is the effect of these gyrations on the economy, and to what extent have some of the imbalances of the market been corrected as at this mid year point?

To start with, the basic imbalances of the stock market continue into 1988-89. Stock exchanges are entirely urban based, and are not able to draw in potential rural shareholders. Moreover 4 out of the country's 15 stock exchanges account for 90 per cent of the business of all stock exchanges, with the Bombay stock exchange alone being responsible for 70 per cent of its daily transactions, peaking at Rs100 crores in June/July. The exchanges are controlled by a powerful group of brokers who are engaged in large scale and continuous speculation, and are interested in promoting their speculative activities, rather than in protecting the investors' interest.

This brings up the most serious draw back of the stock market which is integrally related to the capital market. While the stock markets effect on share prices is via speculation, the capital markets' level of shares and share prices is a reflection of the performance of the

companies which have issued them. There is also from time to time interventions by the financial institutions - buying shares when their prices decline sharply and selling them when they rise too fast, in order to maintain a certain stability in the market. This must be taken into account in looking at the movement of share prices as regards both the stock market and the capital market. The speculative feature of stock exchanges is brought out, for instance, in the fact that of the 5000 shares listed on the Bombay Stock exchange, trading takes place only in 800 shares. This specualtion in selective scrips is aided by decisions such as the withdrawal of the need for approval of the issue of shares below Rs1 crore, which has led to various malpractices and cheating. The drought and its effects was also a fertile source of speculation in the primary market. There is a lack of liquidity, rampant insider trading, pricing manipulation, lack of a reliable data base and, till recently, absence of machinery to monitor speculative activities and protect investors' interests.

The capital market, on its side, is expected to provide 28 per cent of the private corporate sector's VII Plan outlay of Rs54,236 crores, the major part (56 per cent) being provided by its own savings, 15.3 per cent from financial institutions and 0.7 per cent from foreign borrowing.[20] The capital market is expected also to raise Rs5,000 crores in the last two years of the Plan which could be well within its ambit. In 1986-87 $4597 crores were raised, through capital issues - shares, debentures and bonds, of which Rs2332 crores were for the private sector; in 1987-88 Rs3907 crores were raised, of which Rs1978 crores were for the private sector. There has been a decline in the number of companies issuing these capital instruments from 291 in 1986-87 to 119 in 1987-88, forming 11.7 per cent of net

domestic savings, compared to the previous year's 13.8 per cent. Similarly non convertible and convertible debentures issued declined from Rs3692 crores (80 per cent of the capital issued) to Rs2537 crores (65 per cent of capital issued). Non convertible debentures subscribed fell from Rs2568.4 crores in 1986-87 to Rs2064 crores in 1987-88, while convertible debentures fell from Rs1123 crores to Rs800 crores between the 2 years. Only equity and preference shares which are the seed capital of companies show an increase from Rs905 crores in 1986-87 to Rs1370 crores in 1987-88. At this mid year point, all evidence points to the new issues market being in bad shape, due primarily to the lack of investors' confidence in the shares, which ultimately traces back, as pointed out earlier, to the poor performance of the companies issuing them.

During 1987-88 and into this year, the government has taken a series of decisions to regulate speculations, ban insider trading, change the governing structure of the stock exchanges, so that they could function as a service to the economy and raise the capital resources that the economy needs during the last two years of the Plan. Two types of auction were tried out with regard to the Treasury bills. Not only was the response to this change poor, as only Rs293 crores were raised, clients were still the banks and the National Cooperative Development Corporation and not the household sector.

There were several meetings of the finance minister and ministry officials with stock exchange presidents as well as the deputy governor of RBI and the controller of capital issues, beginning in November 1987, when phase I and phase II of the Dave Committee were debated, and ending in July 1988 when phase I of the second stage of the Dave Committee

permitting limited forward trading was agreed to. The controller of capital issues permitted some large business houses to retain their excess subcriptions, which raises questions of loss of resources by other companies and as tax revenue by government. The government also accepted the Bansal Committee recommendation, involving new shares being delivered with existing shares, which is a sound means of eliminating price manipulations.

The government in the Finance Bill gave several concessions to revive the market: including reintroducing the investment allowance; granting complete tax exemption on export profits; a tax holiday for 100 per cent export houses; exemption of power generation and distribution units from section 115J; tax relief to the hotel industry and the promise to implement fully the second stage of the Dave Committee; the continuance of delicensing, more liberalisation of imports, which will be analysed in later sections; and the promise of further tax concessions such as that on dividends. All this has helped revive the stock market, but this buoyancy in the secondary market has not been transmitted to the primary market, whose reactions depend not on concessions like these, but on the performance of the corporate sector.

In April 1988 a Securities and Exchange Board of India (SEBI) was established, with S A Dave as chairman, to a) regulate the securities market, protect investors and advise government, b) to draft legislation for regulation of the Stock Exchanges[21], c) to call for records and data from official and non official bodies, d) to prevent losses to investors through fraud and negligence, and e) to attract the public to the stock markets and f) to revive the capital market.

Further to broaden the base of management of stock exchange, banks and financial institutions were permitted to become members of the management boards, breaking into the monopoly of the institutions by the brokers. The President of the stock exchanges from July 1988 is to be appointed by the government and not elected by the stock brokers from among themselves.

Following earlier recommendations - the 1972 Banking Commission, the 1979 working group on the cash credit system and the Vaghul committee, the Reserve Bank of India set up the Discount and Finance House of India (DFHI), with Rs100 crores as capital in order to even cut the demand and supply of short term finances in the money market through rediscounting the 182 days treasury bills and buy back arrangements in securities.[22] It started operations in April and its total turnover in treasury bills exceed Rs1200 crores by July 31.

All this has resulted immediately (April-September 1988) in the stock market turning the tide as noted earlier, and becoming active. The stock exchanges have registered a sharp rise in April and May by 150 points in 5 scrips and by a further 30 points in June-September. This activity needs to be transmitted to the capital market by increasing the number of traded scrips, by banning insider trading and the parallel stock market (herb trading), by spreading the equity culture through improved performance of the private corporate sector.

However, the power of stock brokers has not been diminished as evidenced in the fact that they were able to make the government backtrack and withdraw the proposal to finance the SEBI through a tax on their turnover. Now

the government has accepted the modality suggested by the brokers, regarding contributions by stock exchanges and stock broker members on a lumpsum basis.

Prices

The rise in prices in 1987-88 was double that of 1986-87, to which a major contributing factor was the drought. The table below sets forth the data:

Table V

	1986-87	1987-88	1988-89 (28 March to 11 June)
Wholesale price index	5.3	10.4 revised 10.6 to	1.6
Consumer price index for industrial workers	7.5	9.8	1.3
Urban non manual workers	7.0	8.2	
Agricultural labourers	3.1	14.8	

Source: CSO

The table shows not only the accelerated inflation rate for all indices in 1987-88 as compared to 1986-87. The particularly steep rise of the consumer price index for agricultural workers from 3.1 per cent in 1986-87 to 14.8 per cent in 1987-88 should be noted, with its effect on the rural poor.

During 1987-88 the real inflation rate was much higher than the average of 10.4 per cent revised to 10.6 per cent set forth in the table for the wholesale price index, as a disaggregated analysis shows that the foodgrains group rose by 16.2 per cent, with pulses shooting up by 36.5 per cent, wheat price (despite releases from the buffer stock) rising by 10.4 per cent, milk and milk products by 15.5 per cent, condiments and spices by 42.2 per cent, manufactured food

products by 11.4 per cent, edible oils by 19 per cent, cotton textiles by 10.8 per cent, with the overall cost of living index rising by 15 per cent.

The contribution of the monetary factors to the inflationary pressure was not inconsiderable. Currency with the public (M_1) rose by Rs5010 crores at 17.5 per cent in 1987-88 compared to the rise of 13.7 per cent in 1986-87. Demand deposits rose by Rs999 crores (4.3 per cent) against 22.2 per cent in the previous year, and time deposits by Rs14180 crores (16.4 per cent) compared to the previous year's 19.61 per cent. This rapid expansion of currency led the Reserve Bank to raise, as noted earlier, CRR by 0.5 per cent in April to 10 per cent and further twice to 10.5 and 11 per cent in July 1988. In this connection, it was also noted that no information from the Reserve Bank or the Economic Survey is available on the Sukhumoy Chakravarty Committee recommendations on establishing and following monetary targets, and reducing the monetization of the public debt. On the other hand, the monetization of the debt kept increasing with the acceleration of the net RBI credit to the government by Rs9127 crores in 1985-86, Rs6870 crores in 1986-87 and Rs7030 crores in 1987-88, resulting in the total net bank credit to government for the 3 years being Rs7522 crores, Rs12,753 crores and Rs12,850 crores respectively. The continuous rise in interest rates on government securities has also added to the inflationary pressure, through its encouragement of specualtive activities.

The rising of administered prices during 1987-88, particularly on the eve of the 1988-89 budget presentation has also been a major inflationary force. The administered prices system cover four groups of commodities and services:

a) material inputs items like steel, coal, fertilisers, petroleum, aluminium and paper; b) infrastructure services like railways, posts and telegraphs and shipping; c) consumption articles like rice, wheat, coarse grains, sugar, edible oils, drugs and d) as support prices for pulses, oil seeds, jute, cotton, sugarcane and rubber. The first two groups of commodities are vital inputs into industrial and agricultural production processes, and so changes in their prices have a pervasive influence on the direction of prices. In fact a study of the impact of the administered price changes in these 2 groups in 1987-88 shows that the rise in administered prices at 12.4 per cent is higher than the 8.3 per cent recorded for the general prices rise. The reason adduced for the rise in administered prices are a) the increase in production costs, b) internal inflationary forces, c) the need for additional projects, and above all and in reality d) the need to mobilise resources for the economy without resort to taxation. The impact of the increase in administered prices which forms 17 per cent of the wholesale price index is largely negative in that it distorts production plans of firms, of subsectors and sectors, produces monopoly profits, and acts as a disincentive to private investment. As noted in last year's mid year review[23], administered prices increase should not be resorted to meet a rise in production costs, as such costs can and should be absorbed by improved efficiency. If there is to be an increase in administered prices, it should be tailored as not to be borne by the poor, and not cause a rise in general prices.

There is one last feature of the price situation that calls for a comment. In the first quarter of 1988-89, that is from the last week of March to the third week of June 1988 the wholesale price index rose only by 1.7 per cent, as noted in Table V, unlike first quarter movements generally, when

prices rise sharply. This is rather unusual and is variously attributed to: a) being the first quarter effect of the 1987-88 drought. This is not correct because after the 1979-80 drought, the first quarter of 1980-81 recorded a sharp price rise of 7.4 per cent and after the 1982-83, drought the first quarter prices of 1983-84 registered a rise of 4.8 per cent; b) being due to the good management of the economy. This again is not true because, as noted earlier, on the demand side there was too much liquidity in the economy in 1987-88, and on the supply side, shortages of most goods which led to imports: c) being due to good rains from the south west monsoon. This again is not true, because in 1980-81 there were good rains from the south west monsoon, but the first quarter registered a 7.4 per cent price rise. There is need for a further examination of this issue, of the primary articles price rise by 1.7 per cent in the first quarter of 1987-88, the rise of 0.5 per cent of fuel and power compared to the 1 per cent rise in the previous year, and the manufactures price rise of 2.4 per cent against the 3.1 per cent in the first quarter of the previous year. The real reason for the small price rise in the first quarter of 1988-89 may well be the greater erosion of the purchasing power of the people in the 1987-88 famine year compared to previous famines, alongside of the fact that the rise of 1.6 per cent of the first quarter was on top of the 10.6 per cent price rise of the previous year - when 355 items showed price rises compared to the previous year's 283, with 68 items showing a rise above 20 per cent compared to the previous year's 54 items.

Agriculture

7 Agriculture in the country is still dominated by the monsoon. The annual report of the ministry of agriculture calls attention to all the first 3 years of Seventh Plan being drought years, with a difference among them only of intensity, with the result that the first year 1985-86, recorded a production of 150.44 million tonnes of foodgrains despite the drought, the second year 1986-87, recorded a decline to 144.07 million tonnes[24], and the heavy drought year, 1987-88, registered a further decline which was later estimated at 137.00 million tonnes. The contrast of the south west monsoon as between the two years holds the main key to their differing agricultural performances. In 1987-88 out of 35 meteorological subdivisions, 18 had deficient rains, and a further 3 scanty rains, which means that 63 per cent of the gross cropped area, covering 45 million hectares in 267 districts in 15 states and 6 Union territories were affected. By contrast, the 1988-89 south west monsoon by July end recorded excessive rainfall in 14 meteorological sub divisions covering 36 per cent of the gross cropped area, and an additional 21 subdivisions received normal rains, covering the balance 64 per cent of the area. It is this difference in the rainfall received that basically explains the official estimate of the 1987-88 foodgrain production being -4.7 per cent at 137.00 million tonnes, and the projection for the 1988-89 foodgrain production of +13 - 14 per cent at 166-167 million tonnes. The table below sets forth in graphic detail the effect of the monsoon on food and non crops production during the year 1986-87, 1987-88 and projections for the 1988-89.

Table VI

(million tonnes)

	1986-87	1987-88	1988-89 (projection)
Rice	60.42	54.30	62.00 - 64.00
Wheat	45.58	46.00	48.00 - 50.00
Jowar	8.87	8.50	9.25
Pulses	4.46	5.50	6.00 - 8.00
Foodgrains	144.07	138.00	160.00 -167.00
Groundnuts	6.06	4.20	7.50
Rape & mustard	2.64	3.69	4.00
Cotton (lakh bales)	70.15	65.00	85.00
Jute (lakh bales	30.00	77.00	82.00
Sugarcane	182.48	178.00	185.00
Index for triennium ending 1969-70 = 100			
Foodgrains	154.5	142.3	162
Non foodgrains	148.2	137.5	158
All crops	152.5	144.2	163

	Agricultural Index	% change
1985-86	158.1	2.3
1986-87	152.5	-3.5
1987-88	144.2	-5.4
1988-89	163	13.0

Source: CSO and Annual Reports of Ministry of Agriculture & CMIE

Though the above table, gives the 1987-88 data in definite terms, it must be recalled, as noted earlier, that there are widely varying estimates of agricultural growth for that year ranging, from -5.4 per cent to -10 per cent, as also of the estimates of foodgrains production varying from

137.00 million tonnes to 122.6 million tonnes. It is only when all crop yield reports are in by the end of October, that the actual total of food and non crop yields will be known definitely. As for 1988-89, the projections at this mid term point represent an evaluation of the monsoon on the trend of crop yields.

The trends refer to a number of major agricultural issues. One relates to the question whether agricultural production shows increasing stability overtime. There is no all India answer to this question. Trends in instability are declining in well irrigated areas like Punjab, Haryana, West UP, coastal Andhra Pradesh and Jammu and Kashmir, and are increasing in rainfed and low irrigated areas as Tamil Nadu, Assam, Kerala, Orissa and West Bengal. Again while in rice, coarse cereals and pulses, the instability in production varied, in wheat there was a decline in instability.

Another trend aspect that has been the subject of considerable study is the effect of the Green Revolution on agricultural growth. In this connection the pre-Green Revolution year, 1949-50 to 1964-65, growth of 2.3 per cent in foodgrain production is compared with that of the post Green Revolution years 1965-66 to 1986-87 of 2.4 per cent. Another study places these two rates at 3 per cent and 2.6 per cent.[25] (A breakdown of this data between pre green revolution foodgrain growth of 3 per cent and non foodgrains growth of 3.5 per cent is compared with the post green revolution rates of 2.6 per cent and 2.5 per cent).

The imbalances overall, regional and crop-wise - introduced by the Green Revolution - have also attracted attention.

Overall, since planning over both the pre and post green revolution periods, foodgrain growth hasbeen at an annual average of 2.7 per cent, while population growth has averaged 2.2 per annum, resulting in a low net overall annual growth of foodgrains of 0.5 per cent. One result is the stagnant per capita foodgrain consumption at 185.3 grammes.

As far as regional imbalances are concerned, it should be noted that the Seventh Plan document calls attention to the fact that 15.23 per cent of the country's farm lands produce over to 50 per cent of its foodgrains.[26] During the past 30 years, foodgrain production increased by 87 million tonnes, 20 per cent of which came from West UP, 16 per cent from Punjab and 8 per cent from Haryana - all of which have only 8.2 per cent of the country's population. This also explains the fact that of the 1986-87 public procurement of 18.5 million tonnes of wheat and rice, over 90 per cent were from the three states.

The crop wise imbalance introduced by the Green Revolution is that against the high rate of growth in wheat from 4 per cent in pre green revolution years to 5.5 per cent in post green revolution years, the growth rate of rice fell 30 per cent from 3.3 per cent to 2.4 per cent in the two periods, that of coarse cereals and pulses have averaged a decline of 30 to 50 per cent.

Another trend to be noted is the increasing ICOR in agriculture also dealt with in earlier Mid Year Reviews[27]. A recent study in the Punjab shows that while incremental inputs have increased eight fold, the resulting output has increased only 2.5 times.[28] What is even more serious is that the study referred to earlier points out that even this

per hectare increase in production is attained by the reduction in employment per hectare. This is serious in the 1987-88 drought year, when far from cutting back on employment, 1400 million man days of employment were needed in rural areas to protect the rural poor against the effects of the drought, against which the anti-poverty programmes of NREP and RLEGP were able to generate only 500 million mandays of employment, according to the report of the ministry of rural development[29], as will be analysed later.

For 1988-89, the foodgrains target is 166 million tonnes. On the basis of the Planning Commission's studies, including that of its Mid Term Appraisal and the recommendations of the task force, to attain the target, the strategy now being developed is to extend the green revolution to five crops, rice, wheat, maize, arahar and gram, in 169 districts identified on the basis of local social relations and conditions, soil conditions, water availability, land development, past growth and the availability of the technological package. The concentration of this effort is in the selected districts and regions of 14 states - of Andhra Pradesh, Assam, Bihar, Gujarat, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Orissa, Punjab, Rajasthan, Tamil Nadu, UP and East Bengal. The programme involves packaging HYV seeds, fertilisers and pesticides, controlled water supply, soft credit, price incentives and marketing facilities to be extended to all farmers - large, medium and small - in these selected regions. The programme with its high stakes into the future - by 2000 AD an additional 84 million tonnes of foodgrains will have to be produced - will depend for its success: on drought proofing being built into the programme as elaborated earlier; on developing irrigation and other infrastructure in the less well endowed regions, (the Planning Commission's mideterm appraisal states that in the first 2 years of the plan, irrigation was extended

only to 1.8 million hectares against the target of 2.8 million hectares, and that 500 major and medium projects are languishing for want of funds); on adapting the technological package to the resource endowment - plentiful labour and scarce capital - of each of the 169 selected districts, involving creating employment and additional incomes in some areas, particularly those which are the poorest agro-climatically; and on ensuring an effective land reform programme which is also one means of lowering the ICOR, through the beneficiaries of land reforms who as small and marginal farmers, irrigate carefully a large part of their farms, achieving greater cropping intensity along with higher labour absorption.

Wheat Wheat production which was 45.6 million tonnes in 1986-87, and 44.6 million tonnes in 1987-88 has been given a target of 67 million tonnes for 1988-89. The area under wheat has increased by 13.6 million hectares between 1953-54 to 1986-87, when it covers 22.81 million hectares. The average per hectare yield in 5 years ending 1986-87 was a low 1913 kg for the country as a whole but a high 3269 kg for Punjab. For 1988-89, wheat output is likely to be between 55 million to 65 million tonnes, taking advantage of the positive factors of the homogenous area where it is grown, excellent irrigation conditions, the prevalent owner cultivation, the completion of the consolidation of land, the use of HYV seeds and adequate credit net work, marketing and extension facilities. It was these which enabled wheat output to attain its 1987 rabi target of 64 to 65.3 million tonnes, and has led the government to announce in parliament that the 1988-89 rabi food grain target is 73.5 million tonnes. The government

reports that it has procured 6.50 million tonnes of wheat as at the end of the current rabi season, which is a decline over the last rabi procurement of 7.8 million tonnes and a sharp fall from the normal 10 million tonnes. There is a question whether the too early announcement of the procurement price of wheat, at Rs.240 per quintal has a negative effect in upsetting the calculations of everyone - farmer, trader, procurement agent et al.

Rice Rice production declined by 4.6 million tonnes in 1987-88 at 55.8 million tonnes compared to 60.4 million tonnes in 1986-87 and was somewhat far away from the 1985-86 peak of 63.8 million tonnes. In fact the main contributor to the decline in foodgrain products in 1987-88 was the rice yield. Kharif rice is the main foodgrain of the country, with an annual production of 58 million tonnes for the quinquennium ending 1986-87. Kharif rice this year is being grown over 39 million hectares, of which 40 per cent is irrigated and 60 per cent rainfed. With the good rains this year over West Bengal, UP, Bihar, Andhra Pradesh, Tamil Nadu, Madhya Pradesh and Orissa, the year's rice target of 64-66 million tonnes is likely to be achieved. Much depends on the results of the special rice production programme of the Eastern states. The problem faced by the rice crop is that it is grown in widely different soil and climatic conditions, calling for as many different varieties, and further the farmer with small land holdings over which the crop is grown faces soil degradation, inadequacy of water supply, and traditional farming practices, which results in low productivity with a per hectare yield of 2195 kg per hectare (Punjab and parts of Tamil Nadu) average 3000 kg, compared to North Korea's 6621 kg per hectare.

Punjab reports in September 1988 a bumper crop of 90 lakh tonnes, of which 77 lakh tonnes is being marketed. It is hoped that the Union sponsored special rice production programme will reverse the declining trend in per hectare productivity - declining from a rate of increase of 2.6 per cent during the period 1953-64 to 1964-65 to 1.6 per cent during 1965-66 to 1986-87.

Coarse cereals

What is called coarse cereals comprise 6 items - jowar, bajra, maize, ragi, barley and small millets. These are important food items as they are the poor man's food. The table below sets forth the details of the cereals for from 1985-86 to 1987-88 and projection for 1988-89.

Table VII

(million tonnes)

Type	Area (million hectares)	1985-86	1986-87	1987-88	1988-89 (projection)
Jowar	15.64	10.20	8.87	8.50	9.50
Bajra	11.22	3.66	4.49	3.59	4.50
Maize	5.87	6.64	7.43	6.50	8.00
Ragi	2.39	2.52	2.67	2.50	3.20
Small millets	3.09	1.22	1.12	1.10	1.5
Barley	1.28	1.96	1.73	2.00	2.20

Source: CSO & CMIE

The low level of production of the 6 items, ranging from 24 to 26 million tonnes for the three years 1985-86, 1986-87

and 1987-88 should be noted. In fact the official estimates for coarse grains production for 1987-88 is lower at 25.7 million tonnes against the estimate of 26.10 million tonnes set forth in the above table. Even the projection for 1988-89 is only 3 million tonnes above the higher average and totals 28.9 million tonnes. Accounting for 32 per cent of the area under food crops, coarse cereals production is 20 per cent of the total foodgrain yield. There is no more urgent problem for alleviating the nutritional intake and status of the rural poor majority than to increase the yield of coarse grains for 1988-89 to 30 million tonnes - which is an increase of over 4 million tonnes. This can be done only by stopping the diversion of land under coarse cereals to other food crops and cash crops, by making it as profitable to the farmer to grow coarse cereals as other food and cash crops. In this regard, the kind of new technology that has been developed and applied to jowar needs to be extended and applied to other crops. The declining trend in barley can be stopped, if research can develop a HYV packet for its farmer. Further there is need for the concentration of coarse cerals in a few states - Gujarat, Rajasthan, Maharashtra, UP and Karnataka (in the case of ragi particularly) - to be more widely grown - with some priority for dry land farming in all states.

Pulses Pulses, also a major food items as the source of protein both for the poor majority and for the non poor vegetarian masses, is declining in availability alarmingly. It peaked in 1985-86 at 13.4 million tonnes, after which it declined to 11.7 million tonnes in 1986-87 and further to 10.9 million tonnes in 1987-88. The per capita consumption of pulses has been declining over the last 3 decades - from 61 grammes in 1951, to 45 grammes in 1979, down to 36 grammes today. Under these conditions it is imperative that pulses

production in 1988-89 and in the last year of the Seventh Plan, and in the five years of the Eighth Plan be increased (instead of declining as at present) to meet the demand for 18 million tonnes. By the end of the eighth plan, it may increase to 19 million tonnes. Production since 1985-86 has not only been stagnant, but is declining at -0.28 per cent for production and -0.50 for productivity.[30] The reasons for this poor performance are now well known and documented - all centering around the fact that the crop is grown almost entirely on rainfed areas and so the increase in the production of the crop depends on the results of the efforts now under way to improve dry farm technology. There should be also some investment in improving its inputs and developing more short duration varieties. The target set for the eighth Plan 14.50 million tonnes is modest and achievable and this should be the outcome of the Union sponsored National Pulses Development programme with its location specific operation, subsidised and certified seeds and use a variety of fertilisers and plant protection measures. which should yield 400 kg per hectare this year.

Oilseeds The oil seeds scene is a complex one. It comprises 7 major oil seeds - groundnut, rape and mustard, seasamum, safflower, niger, soyabean and sunflower, and there are five others, lin, castor, rice bran, cotton and coconut, and other forest based non conventional seeds. Oil seeds policy is being frustrated by a number of factors. First though it is the major crop after cereals covering 19.8 million hectares, which is 11 per cent of the gross cropped area, in terms of inputs it receives less than 4 per cent of the total. Second it is grown to the extent of 84 per cent of production in non irrigated, sub marginal lands. Third till recently there has been no policy in regard to oil seeds as seen in the fact that while the minister was declaring to the National Oilseeds and Vegetable Oils Development Board that oil seeds production in 1986-87 will be 120 lakh tonnes (when actually 114 lakh tonnes was produced) and 125 lakh tonnes for the oil seeds year 1987-88, the highest 18 lakh tonnes of edible oils was being imported. There is something wrong with these statistics, because the highest domestic oil seeds production and highest oils imports cannot go together.

An inventory of the domestic production of oil seeds is set forth in the table below.

Table VIII (lakh tonnes)

Item	1985-86	1986-87	1987-88	1988-89 target
Groundnut	51.2	60.6	59.2	65.6
Groundnut (in shell)	55.47	70.85	75.8	80.0
Rape seed & mustard	26.61	26.35	27.5	29.2
Sesamum	5.01	4.4	5.5	6.5
Safflower	3.48	3.33	3.8	4.0
Niger	1.92	1.32	2.0	2.5
Soyabean	9.82	10.1	10.6	11.2
Sunflower	3.01	3.5	4.2	4.8
Lin	3.76	3.43	3.5	4.1
Castor	3.08	2.37	2.98	3.2
Coconut (million nuts)	6.7	6.4	6.8	7.2

Source: Agricultural situation
Agricultural census

The problems faced by oil seeds in regard to achieving the 1988-89 target of 170 lakh tonnes, include the serious constraints on its production to which little attention has been paid, the serious effect on the oil seeds farmer of the massive imports of edible oil, and the coexistence of 60 per cent unused capacity of the solvent industry's 41.7 million capacity, while edible oils instead of edible oil. seeds are being imported, (44 per cent of rice bran processing is unused because of the outdated rice mills and the 34 lakh tonnes of soya bean oil capacity receives only an annual 7-8 lakh tonnes). The extent to which the National Oilseeds Development project with its outlay of Rs.170 crores being implemented in 17 oil seeds producing states and the Oil Seeds Production Thrust Project and the Oil Seeds Technology Mission with its Rs.250 crores for the next 2

years can help solve some of these intractable problems and overcome the antioil seeds import lobby remains to be seen. The first task of the Technology Mission is to increase irrigated oilseeds from the current 15 per cent of the land under oil seeds to 23.6 per cent, and on that basis, to ensure that the requisite inputs are made available to the oil seeds farmer. If that were done and the seven point integrated oil seeds policy (except for elimination of edible oil subsidy made available through the public distribution systems which is aimed at the poor and the impractical proposal for establishing and maintaining a band of prices, given the varied costs of the farmer in different soil conditions) put into effect, and given the good monsoon this year, the target of 170 lakh tonnes of oilseeds this year and the 180 lakh tonnes next year, 1989-90, can be attained.

Cotton The cotton scene at the end of the 1987-88 cotton season (ending August 1988) is a good occasion to review the 3 year textile policy as far as its provisions regarding the cotton farmers are concerned and attempt a forecast of cotton production for the 1988-89 season. One might begin with a comment on the three year textile policy which has ended in June 1988 that its promise to help produce 'cloth of acceptable quality at reasonable prices' was not kept. Implied in this was the government repeated assurance to cotton farmers of stable and remunerative prices which again has not been kept. Cotton prices which had fallen by 24.9 per cent in 1984-85, fell by a further 13.8 per cent in 1985-86; primarily because CCI reported nil stocks and nil carryover; and as government was pre-occupied with the crisis of plenty, with 101.3 lakh bales in 1984-85 followed by 107 lakh bales in 1985-86, with CCI and Maharastra Federation undertaking massive price

support operations; and the government announcing a 3 year cotton export policy (which could not be fully met in the first year itself, 1986-87) all of which led in 1986-87 to a rise in cotton prices by 83 to 138 per cent. In 1987-88 the scene changed again with good rains in August and September which led to the cotton crop forecast by CCI of 99 lakh bales and 105 lakh bales was by EICA, resulting in a fall in prices. Again the November 1987 meeting of CAB which forecast a 1987-88 cotton crop of 95 lakh tonnes as a kind of half way house between CCI's estimate of 91 lakh bales, ICMF's of 97.5 lakh bales, EICA's 99 lakh bales, further eased cotton prices (though international prices fell by 20 per cent more than Indian prices which in major part was cancelled by the continuing depreciation of the Rupee). In January 1988 CAB revised downward its crop estimate for 1987-88 from 95 lakh bales to 85 lakh bales, leading to cotton prices shooting up by 38 per cent. In April,1988, as cotton stocks with mills CCI and Maharashtra Federation and extra factory consumption were found to be adequate, all adding upto 97.70 lakh bales, there was a fall in cotton prices spurred by speculation and increased consumption of manmade fibre. Finally in August it was found that carryover stocks were low with 50,000 bales with CCI and Maharashtra Federation, which meant that all carryover, estimated at 20-28 lakh bales with the mills and the trade. This together with the downward revision by CAB of cotton crop estimates for 1987-88 from 95 lakh bales in November 1987 to 85 lakh bales in February 1988 plus the low carry over of 7.5 lakh bales resulted in a sharp rise in cotton prices; leading to ICMF demanding import of 10 lakh bales of cotton, 20,000 tonnes of viscose staple fibre and a further liberalisation of the advance (import) licensing scheme. Actually prices declined because of the large use of manmade fibre, and states did not use the 1 lakh bales

imported for them to make available yarn to the handlooms. For 1988-89 all this points to an important lesson. With the plentiful rains, though the August meeting of CAP did not arrive at any forecast for the year (rather deliberately one suspects) the 1988-89 season is likely to be a reversion to a period of plenty with the cotton crop being around 120 lakh bales. This long and somewhat dreary recital of the cotton scenario over 1987-88 and prospects for 1988-89 (including what happened in the 1986-87 season) has some important lessons. A first lesson is the wild fluctuation of prices - which gave remunerative and profitable prices neither to the grower nor to the consumer, but fed speculation. Second there is a serious lack of machinery for forecasting the crop so that the forecasts arrived at are a compromise between the pessimistic forecasts of the mills and the optimistic forecast by the trade. There is urgent need for machinery to be established (using as the basis the expert committee recommendation on it) to arrive at a reasonable forecast. Third the agricultural ministry must change the absurd position of maintaining the Seventh Plan target at 85 lakh bales when in the first year of the Plan the crop was 107 lakh bales. Fourth the mills must also revise their position of setting forth as their consumption and stock more than what the country produces during the year plus carryover. Fifth there is need to review the import policy not only to liberalise advance licensing to help the handlooms with the yarn they need, but also to promote the export of extra long staple fibre, which is in serious excess of domestic demand. Finally there is need for the government, the mills, the trade and the farming community to prepare themselves to live during the coming season with a period of plenty.

Jute Jute production for 1987-88 is reported by the government at 70 lakh bales against the target of 86 lakh bales. The short fall is attributed to the drought which resulted in the jute hectarage being reduced by 2,50,000 hectares, and the later floods. This does not take into account the initiative taken by the government of West Bengal in 1986-87 to reduce the hectarage under jute and mesta cultivation to meet the problems caused by the jute mill workers and jute mills. According to the Directorate of Jute Development, the area under raw jute and mesta declined by 7.71 lakh hectares in 1985-86 and by 5.32 lakh hectares in 1986-87. Jute production in 1986-87 was 70 lakh bales which with the carry over of 46.8 lakh bales makes the total availability 126.8 lakh bales. Similarly 1987-88 production is estimated at 70 lakh bales and with the carry over the availability will be 110 lakh bales. Two development in the jute area may be noted. First the special Jute Agricultural Development Programme launched for 3 years from 1987-88 is timely as it is aimed at improving the quality of fibre, increasing production through use of quality seeds, and providing plant protection and farmers training. The target for the current year, 1988-89, is set at 92 lakh bales which with the good weather, should be attained. The second development is the decision of the commerce ministry to set export targets for jute goods as a means of giving an impetus to the export of jute goods. This export drive will depend for its success not only upon the incentives like CCS, but primarily on the improved fibre quality of the jute exports. It is from this point that the 2 initiatives referred to here - the special jute development programme and the programme of export target for jute goods seem linked. As they succeed, they would make a contribution to the problem of price faced by the farmer and the use of capacity faced by the mills.

Sugarcane The sugarcane area raises three issues. The first is the volume of production. Grown over 30 to 32 lakh hectares and against the Seventh Plan target of the production of 2170 lakh tonnes, the 1987-88 output is estimated by the government at 1800 lakh tonnes (1798 lakh tonnes by the Reserve Bank) and the target for 1988-89 at 1950 lakh tonnes, which given the good weather should be attained. The programme to increase the quantum of production includes the use of quality seeds, increased irrigation, fertilisers, plant protection, better management of ratoons and training and technology transfer. There is the usual wide and widening gap between the Union support price of Rs.17.5 per quintal in 1987-88 and the states 'advised prices' of Rs.26 to 23 per quintal. Once more it is reiterated that, as in the case of foodgrains, there should be either a single support price for sugar for the whole country, or the Union should state quite simply that its price is not a support or procurement price, but merely one element for fixing the levy price of sugar. In any case the pricing system has not prevented the dues of mills to sugarcane growers rising sharply from Rs.60 crores in 1987-88 (February) to Rs.400-500 crores in 1988-89 (May). Another development is the decision of the government to set up 19 new sugar factories in 1988-89 and permitting 57 existing factories to expand their capacity to crush 1527 lakh tonnes of sugarcane a year. Two questions arise in this connection. The first is about the location of these mills which will have to be near the farm producing sugarcane; but already these kind of sites have been fully occupied and exploited by existing mills. The other is the more serious question as to whether this very heavy water intensive crop should be grown so extensively - in the 1987-88 season 729.24 lakh tonnes were crushed by the mills. Should there not be some cut in sugarcane consumption, so that the irrigation water so released becomes available for the higher priority crops

of cereal, pulses and oil seeds, which are now being imported.

Tobacco In 1987-88 tobacco was cultivated over 4 lakh hectares, producing 400 million kg., which is 7.6 per cent of world production. Here again there is a dilemma. Though the tobacco farms are only 3 per cent of the total cropped area of the country, concentrated mainly in Andhra Pradesh, Karnataka and West Bengal, they employ over 1 million persons and contribute substantially to the national exchequer. Given the deleterious effect of the consumption and use of tobacco, which in a sense is more serious than that of opium, and the identification of many of the killer diseases like cancer, cardiac ailments etc. with its use, and its banning in many areas and many parts of the world, the question arises whether the employment and incomes generated from it and the increase in governmental revenues from the growing, processing and sales and export of tobacco are a sufficient justification for the growing of this crop, which causes such intense human suffering, including that among the poor.

Plantation Crops

Tea Tea production in the country carries both positive and negative elements. On the positive side, it is noted that the 1987-88 drought had no effect on the output of the crop because of floods in the North and the needed rains in the South. Tea output in 1987-88 has set a new record of 673 million kg., surpassing the previous 1985 peak of 659 million kg., a record in which both the tea gardens in the North at 527.4 million tonnes and those in the South at 145.9 million tonnes shared. With international prices ruling high, the export of 210 million kg.

earned Rs.601 crores. For 1988-89, as a result of the many incentives granted in the budget, such as full export duty rebate to tea when exported from gardens or warehouse complete exemption from export duty to green tea, reduction in fertiliser prices and excise on pesticides, the reduction from 25 to 15 per cent of the excise on aluminium foil, tea production is expected to set a new record of 700 million tonnes. And on this positive side to be noted is the Rs.10 crores national corpus for research on tea which has been set up with equal contributions from the industry and NABARD to help the country maintain its preeminent position in the tea field. And this is where the negative elements must be referred to. With domestic consumption ranging between 460-470 million kgs, export markets have to be found for the balance of 230 to 240 million kgs. And this is not easy, with world tea supply (from Sri Lanka, Kenya, Bangladesh etc.) rising and with having also to deal with the after effects of the various restrictions on tea exports that prevailed till two years ago such as the ceiling on the volume of exports, the ban on CTC teas etc., The only way in which export markets can be expanded as if the tea quality is high (and this is the task of the tea research fund) and the price is competitive. These considerations apply also to the target for the year 2000 of 1.1 billion kg. when, not only are the domestic and export markets for this near doubling of output difficult to find, but the target sets a rate of increase of production between now and 2000 which is double that of the present and past rate, 1.6 per cent per annum having to become 3.2 per cent, and the adequate land for additional tea garden, are simply not available. 54,000 hectares of new potential tea estates have been identified, which will result in annual growth of 2.8 per cent. Another problem that has cropped up in the last 2 years and being tackled in 1988-89 is the sharp

fall in South Indian tea exports from 62 million kg. in 1985 to 37 million kg. in 1987. To stop this slide, the system of monetary incen ives for incremental exports are offered by the government and are to be administered by the Tea Board for the last 9 months of 1988-89. The problem with the scheme is the usual chicken and egg relation - the tea exporter will not know beforehand if he will get the incentive, as the increase in exports depends on the importing country. This will be a disincentive to enlarging exports. There are other problems of the scheme relating to merchant exporters and the place of value added items. It is only in 1989-90 that the effect of the scheme can be known.

Coffee In 1988-89 coffee production is expected to record, 2 lakh tonnes. Here again with domestic consumption at 60,000 tonnes, the residue of 1.4 lakh tonnes have to find export markets. In fact the weakness of the coffee industry is its heavy reliance on export markets which are not available. Actually coffee exports declined by 10 per cent in April - December 1987, which makes the plan to increase coffee output to 3 lakh tonnes, a difficult one to implement. India's quota as fixed by the International Coffee Organisation is a small 45782 tonnes for 1987-88, which leaves nearly a lakh tonnes to be sold to non quota countries, of which USSR is the lead importer. Exports to non quota countries are subject to India giving them heavy discounts, which are objected to by the quota countries, who do not get these discounts. Altogether the Industry faces in 1988-89 a host of problems - of surplus stock, small ICO fixed export quota, diminising domestic consumption and export and purchase tax amounting to Rs.132 crores. One immediate way forward, which is within the action possibility of the producers, consumers and government of the country, is to expand domestic consumption. This should

be done, even though that will be shifting the burden to tea producers to some extent. Meanwhile the abolition of the export duty on coffee and the review of its minimum price by government should help. The coffee committee that has been set up by the government has urgent tasks to perform - to determine the level of production to be achieved in the long term and medium term by types and varieties of coffee and means of achieving them, to examine the causes for the stagnation of domestic demand and means of overcoming it, and to establish a plan to widen the export base of coffee.

Rubber Rubber production which has been growing at 6-7 per cent a year during the last 4 years, and 1987-88 was a record 2,35,000 tonnes, is expected this year to reach the target of 2,55,000 tonnes. With consumption projected at 3,05,000 tonnes, rubber, unlike coffee and tea, will have no surplus supply seeking a market. The problems faced by the commodity are three fold. First the pace of increasing rubber production by bringing new areas like Goa, Andaman etc. at the rate of 4000 hectares a year during the Seventh Plan is too slow to meet the large and growing demand for rubber. This means the import of rubber is a long term factor that must be reckoned with. Second and related in the short term is the set of problems arising from the annual import of rubber of around 50,000 tonnes. These include the period of importing, its release in the domestic market, the price and the impact of the prices on both the grower and user. The international price of rubber is also on the rise, because of the 'aids' scare.

Cardamom The 1988-89 production of cardamom is expected to be 4500 tonnes. A recent spices Board survey places domestic consumption at 2800 tonnes, which means that 1700 will have to find export markets, against 270

tonnes exported in 1987-88. The problems faced by cardamom exports and exporters are the contraction of the West Asian market, which was due to a) the shift in the buying pattern in West Asia from one of advance stocking to frequent buying based on need and demand as a result of the prolonged recession in the region, b) the change in the economic preference of West Asian consumers for low priced, inferior quality cardamom supplied by Guatemala at a low $2 a kg. and c) the serious decline in domestic products, and hence the inadequate availability of export grade cardamom. So the new strategy introduced this year by the Spices Board to regain the markets lost in West Asia by providing cardamom growers/exporters 20 per cent CCS support and by grant of airfreight and shiping subsidies should lead to the export of 1500-1700 tonnes in 1988-89.

Allied Activities

Forestry There is little progress to the report in 1988-89 over the report on forestry in last year's mid year review.[31] The wide discrepancy on how much of the land surface of the country is under forest as between the data released by the National Remote Sensing Agency (that it is 14.1 per cent of the land surface which is 46.15 million hectares) and the data set forth by the Department of Forestry (that it is 19.52 per cent which amounts to 64.20 million hectares) was reconciled at a joint exercise by the two bodies. The reconciliation is that the forestry total of 64.20 million hectares being under forest is accepted, because while the amount of "closed forests", that is forests with 40 per cent crown cover is maintained at 35.77 million hectares, the open forests - those with 10 to 40 per cent crown cover - are increased to 27.66 million hectares. This means that it is now agreed by all sources

that India's real forestry - the closed forest - is only 11 per cent of its geographical surface. But how much of this 11 per cent has a crown cover nearer to 100 per cent is not known, nor is the extent of the open forests of the balance of 8.5 per cent nearer 40 per cent known. Under these conditions all projects for felling of trees in forests - whether for fire wood, or for packing, construction and plywood, paper and rayon plants,- which are taking place in the forests of the Himalayan and the Western Ghats and the North East states - must be stopped and/or controlled. These which are beyond sustainable levels, to be decided by a group of experts advising the government, should be stopped, along with the state governments stopping the defoliation of their forests. There is also need to restructure the social forestry programme, which suffers large losses through higher rates of death than of the saplings planted, which benefits large farms and farmers mainly, and which has been a fertile ground for corruption. If the social forestry programme is taken out of the forestry department which is responsible for these defects, and placed under the supervision of the department of rural development directly, with village communities who should decide what spices are to be planted and who should be its main beneficiaries, the programme could be a means of protecting our fast depleting forestry resources.

Fisheries Fish production, both marine and inland was 30.35 lakh tonnes in 1987-88 and is estimated at 32 lakhs tonnes for the current year. The three problems on the fisheries field are highlighted by the Planning Commission's mid term appraisal as a) the need to increase fine seed production in the inland states particularly Bihar, UP, MP, and Assam; b) the development of inland brackish water acqua culture; and c) the very slow rate of increase in the

number of deep sea fishing vessels in the marine states, notably West Bengal, Orissa, Gujarat, Tamilnadu and Maharashtra. In the case of the first problem, the target at 45 hatcheries is low (in two years 30 hatcheries have been set up) and may be at the root of the problem. The second problem derives from the fact that the Fish Farmers Development Agencies which are the instrument for the development of inland brackish water acqua development need more inputs, particularly scientific training in inland fish culture. In regard to the third problem area, there seems to be no relation between the Seventh Plan target of 500 deep sea fishing vessals and the actuals at 120 in the third year of the Plan. Of course, this may also be due to the tradition that has developed of fixing targets without any real base, or relation to the finances available. On marine exports, the situation is more hopeful, as 60 per cent of the Plan target of Rs.700 crores has been attained in its first two years.

Animal Husbandry and Dairy The government reports, with some euphoria, that the gross value of the output from livestock is Rs.16500 crores, involving 192.5 million cattle, and 207.7 million poultry birds. These produce meat, 40 million tonnes of milk, 1700 million eggs, 90 million birds, 44 million kgs. of wool, and on top livestock breeding benefits 59,000 persons. It also reports on Operation Flood III; which has an outlay of Rs.681 crores in 1985-86 in 169 milk sheds with 51,550 village level Dairy Cooperatives, in which 53.6 lakh farmers are enrolled; 30,000 societies are covered in the animal health programme; 9000 villages provided with artificial insemination services; and 52,000 tonnes of cattle feed produced by cattle feed plants and marketed to farmer numbers through 25614 village societies. In view of the fact that Operation Flood III is, with the

aid from EEC and the World Bank expanding every year; the NDDB being its focal point, and the decision of the government to launch in 1988-89 a technology mission in Dairying it is important that there is a further objective assessment of Operation Flood III, its methods and techniques and out-reach by a group of experts - economists and animal husbandry specialists, to answer the question that have been raised, including these raised by the Planning Commission's Mid Term Appraisal. The unanswered questions are: What has been the effect and use of the donated dairy food - mainly skimmed milk and butter oil - in our climate and culture ? Should cross breeding with European cows be limited locationally where it can succeed ? What has been the effect on agriculture generally of the heavy use of green fodder and compound cattle feed, and on cattle development of the export of compound feed ? Has there been an incremental increase in milk availability to the rural areas where the mass of the people live, and particularly for those most in need of it - infants and pregnant and lactating mothers ? Is a more decentralized system using local potential and facilities fully, preferable to the National Milk grid ? Why has the operation flood programme not progressed well in the eastern states ? Should the capital structure of the programme be rationalised and should there be application of the principle of efficiency pricing in milk processing ? Is there some way in which the dairy development programme can be effectively and directly linked to our major socio-economic priority of poverty alleviation ? In this connection the mid term appraisal suggestion of coordinating IRDP, RLEGP with Operation flood may be examined.

Irrigation Irrigation is an area where the target as well as achievements needs to be studied on a long term basis, rather than an annual basis. The Seventh Plan

started with a potential of 30 million hectares under major and medium irrigation and 37.5 million hectares under minor irrigation. In the first three years of the Seventh Plan major and medium irrigation potential has increased by 1.75 million hectares and the potential under minor irrigation by 4.92 million hectares. For 1988-89 the target of potential for major and medium works are 0.7 million hectares and for minor 1.7 million hectares. There are several disturbing elements in this important area of agricultural infrastructure, some of which comments have been made earlier. First the backlog of works in major and medium irrigation is both large and increasing every year, standing at 184 projects which were started nearly 2 decades ago. Second as the Mid term Appraisal points out the record of the major and medium projects in the first 3 years is both small and declining over time. Third the gap between potential created and utilisation is large in the case of major and medium works in these 3 years, is over 1 million hectares which at the rate of Rs.27,000 per hectare means Rs.2,700 crores are being wasted. The directions for the future are clear. First both major and minor irrigation are needed as empirical studies have clearly indicated that investment in canals and tanks are a precondition for good performance of well irrigation.[32] Second and relatedly irrigation needs to be expanded and extended as there is no substitute to provide agricultural stability and protect farm incomes, employment and output. This was particularly evident in the 1987-88 drought year, when irrigated foodgrain output declined by 6 per cent as against the 22 per cent decline in rainfed foodgrains output. Third it is important and urgent that the Command Area Development Programme, which covers 1.96 million hectares on field channels construction, 0.29 million hectares on land based levelling and 2.04 million hectares

on Warabande, be speeded up and more funds invested in them as a means not only of improving and increasing the utilisation of the major and medium irrigation works, but also as a means of countering the danger of waterlogging and soil salinity associated with canal irrigation as in Punjab. Here the faulty planning and implementation of major irrigation works, particularly the absence of drainage net works and canal linings leads to excessive seepage and a rise in the groundwater level. Finally there is need for NABARD to take a more active and aggressive stand on lending through the various agricultural credit institutions in the states in promoting minor irrigation works. Again studies show that irrigated crop yield are higher for tube wells and lowest on tank irrigation, with canal irrigation standing midway between them. The mid term appraisal makes a case for monitoring investments in minor irrigation which are from multiple sources, banks, REC, IRDP, LDB who have together disbursed Rs.647 crores in 1985-86 and Rs.730 crores in 1986-87. This amount is inadequate given the vast potential that exist for increased use of ground water. One disturbing indicator of the lag in this area is that of the 2.40 million pumpsets to be energised in the Seventh Plan, a little over a million have been energised in the first 3 years. Looking at the irrigation data, one is forced to conclude that while there is need to push ahead and expand minor irrigation, in the case of major and medium irrigation, what is needed to improve and expand the use of the potential that has been created rather than engaging or in initiating more major works.

An important development in the field of irrigation and water management was the adoption of the National Water Policy on September 9, 1987, which recognises once more water as a national resource to be planned and used on the

basis of it being a hydrological unit (drainage basin). The policy also states that water should be made available to water short areas by transfer from surplus areas, and in .. water allocation first priority should be given to drinking water, with irrigation, hydro power, industrial and other use following. Water resources planning should be based on integrated and multidisciplinary approach, with close integration of water use and land use policies. It also states that farmer should be progressively involved in the management of irrigation systems. There should be a master plan for flood control and the needs of drought prune areas should be given priority in water project. The policy is a sound statement of principles. It is too early to judge its effect on water management in the country. In the 12 months that has passed since the formulation of the policy, there has been no impact on the serious water disputes and issues such as that on Yamuna, Narmada, Cauvery, Telegu Ganga etc. It is now necessary and appropriate to turn our attention to the manufacturing subsector.

Manufacturing

What is the state of the manufacturing sub sector as part of the industrial sector and what are its prospects for the current year ? The analysis of the manufacturing sub sector could begin with looking at the Industrial growth rate index under the old (1970-71 base) and the new series (1980-81 base).

Table IX

Year	Mining		Manufacturing		Electricity		Overall	
	Old Series	New Series	Old Series	New Series	Old Series	New Series	Old Series	New Series
1985-86	4.7	4.2	6.1	9.7	8.5	8.5	NA	8.7
1986-87	NA	6.2	NA	9.3	NA	10.3	NA	9.1
1987-88	NA	3.5	NA	8.6	NA	7.6	NA	7.7
1988-89 (Projected)	NA	2.1	NA	9.8	NA	8.1	NA	8.6
April & May	NA	6.0	NA	13.0	NA	10.4	NA	12

Source: CSO

The table above shows that industrial growth (new series), except for 1987-88, is well above the Seventh Plan target of 8 per cent and the manufacturing sector doing well. However the table also shows that industrial growth slowed down in 1987-88. The rise in the 1986-87 index is due to very good performance of electricity. In case of manufacturing, there has been a steady decline over the 3 years. The data for the two months, April & May 1988-89 show a very high growth rate of 12 per cent overall on the basis of CSO's quick index and 13 per cent for manufacturing. Apart from its provisional character, it is too short a period to be able to judge the 1988-89 trend. The first 4 months of 1987-88 recorded 14.4 per cent growth in manufacturing but for the year it was 8.6 per cent. The revised series of the industrial growth rate has been examined, and the various factors comprising it were analysed in last year's mid year review.[33] Two further pieces of information are made available by CSO on the revised index. One is the inclusion in the revised index of 18 items out of 49 products from the small scale sector, with no weights and based on questionable data,

seen in the attribution of a high growth rate of 15.8 per cent for them in 1985-86 in constant prices. The other element which has come to light is that manufacturing production has been increasing, because of the large and increasing use of imported raw materials and components. While the rate of growth of manufacturing production is increasing, the rate of growth of manufacturing value added is much lower. The Annual Report of the Reserve Bank for 1987-88 points out that the slowing of industrial growth for that year from 9.1 per cent in the previous to 7.7 per cent is only partially due to the drought, which will have its effect on the 1988-89 and 1989-90 performances. In this connection, it is regrettable that minister of industry was led by his brief to mislead parliament in the statement on August 8 in stating that the 1987-88 index showed an industrial growth of over 8 per cent.[34] In 1987-88 the drought impact on industrial growth was softened by the good performance of electricity (and coal), the large supplies made available by imports and foreign loans as referred to earlier, and the smaller share of agro based industries in the overall, industrial product mix. This is seen in the quarterly index for the 3 years presented by CSO and reproduced by the Annual report of the Reserve Bank for 1987-88[35] as set forth in the table below.

Table X

Quarter	Mining & Quarrying		Manufacturing		Electricity		Overall Year	
	86-87	87-88	86-87	87-88	86-87	87-88	86-87	87-88
April-June	6.6	5.7	5.3	13.2	10.4	8.5	6.1	11.6
July-Sep.	8.1	4.8	8.0	12.2	9.2	10.0	8.5	11.0
Oct-Dec	7.2	3.5	5.7	7.3	11.4	4.5	6.7	6.5
Jan-March	3.6	0.8	17.7	2.9	10.5	7.3	14.7	3.1

Source: CSO & RBI Annual Report

The quarterly growth rate trends in the above table show clearly that no overall statements about acceleration in industrial or manufacturing growth can be made as is done by the Minister in Parliament, or the mid-term appraisal. Rather the table shows that in the last two quarters of 1987-88 there was a slackening, and a rather sharp one for the last quarter January-March 1987-88 both overall and in each of the constituent sectors.

The policy of 'liberalisation' in the manufacturing field was continued in 1987-88 and into 1988-89 a major package being announced on June 1988 comprising:

- No licensing needed for projects with investment upto Rs.15 crores in non backward and Rs.50 crores in backward areas

- in addition to the above kind of incentive to develop backward areas, Rs.2500 - Rs.3000 crores are to be invested in setting up during the coming five years 100 growth centres in backward areas to develop their infrastructures

- Tax reliefs under sections 80HH and 80 I and the restored investment allowance, referred to earlier, to be available to units in growth centres.

- Industries requiring licensing to be reduced from 56 to 27 by merging schedules IV and V of the Industries (Development and Regulation) Act

- The No licensing requirement for projects with foreign exchange need raised from 15 to 30 per cent of production

- Dominant undertakings (on the basis of 25 per cent or more of the market share) freed from the licensing restrictions applicable to companies coming under the MRTP Act. This delicenses 69 MRTP companies.

- The liberalised policy for distribution of imported bulk drugs and intermediates for drug firms with manufacturing facilities as well as for small scale firms registered with DGTD

The above package is in addition to:

- No license required for 30 broad categories of industries including 82 bulk drugs and computer software and wire rods - (December 1987 announcement)

- No licensing needed for MRTP and FERA companies operating in 20 industries, later extended to 27 industries in Appendix I and 24 industries not in that Appendix (March 1986 & October 1987 announcement)

- Automatic reindorsement of capacity upto highest level produced, with previous limitation of 80 per cent of licensed capacity abolished (April 1988 announcement)

- No licensing needed for meeting one time export order (April 1988 announcement)

- For technological upgradation purposes, the liberalised import of capital announced in 1987-88 extended to import of capital goods even when produced in the country (1988-89 budget)

In fact the orders and notifications on this 'liberalisation' process are flowing in so fast that it is difficult to keep track of them and the above inventory should be looked at from that point of view. There is no doubt that this simplification of control procedures and delicensing of some industrial areas have contributed to the good growth performance both of the industrial sector and the manufacturing subsector. This positive effect of the 'liberalisation' policy is the result of what the Mid Term Appraisal calls 'the process of structured change' involving selective

application of delicensing and broadbanding, replacement of physical controls by fiscal ones in some cases,and integration with plan priorities - all linked to sectoral investment planning. There is a certain amount of hyperbole in this delineation of the process of structured change, but its essential point is captured in the Annual Report of the Reserve Bank's description of the process giving a "general flexibility" in trade and industrial policies. All this is far from the view expressed in the 1988-89 budget presentation or the Economic Survey 1986-87 that the industrial growth of 8.7 per cent in 1985-86 and 9.1 per cent in 1986-87 is due to the delicensing, liberalisation policy adopted over the past 3 years. There is some effect on the growth rate of the index change as noted earlier in regard to the inclusion of some small scale units, some effect of the heavy imports of machinery, components, and raw materials which have been used in some industries like electronics, computer, automobile to put them together and so increase production, but which have weak downstream and developmental effects, and some effect of the skewed domestic market which has moved the terms of trade in favour of industry and certain types goods and capacity creation, as in the case of automobiles and consumer durables.

Industrial growth disaggregated at the 2 digit level shows that 5 industrial groups covering 40 per cent of all industry experienced growth rates above 8 per cent in 1987-88, points out the Mid Term Appraisal document, and specifically names chemicals, basic metals, metal products and electric machinery and appliances as belonging to this group.[36] At the 2 digit level this group has performed well. But detailed analysis at 3 and 4 digit level of these industries for the first half of 1987 shows that[37]
a) the major part of the industrial sector amounting to

over 60 per cent of all industry grew by less than 10 per cent or recorded declines; b) 10 industrial sub groups with weight of 2.73 per cent recorded growth rates ranging from 100 per cent to 3365 per cent accounting for 41.6 per cent of the 11.6 per cent of the industrial growth in April-June 1988 recorded in table X; c) in electric machinery two thirds of the enterprises recorded negative growth (some of which also suffer from faulty data presentation) and d) in chemicals there are items like the fermentation industries with a weight of 0.02 per cent which grew by 518 per cent in the first quarter and 257 per cent in the second quarter. The sub groups which did record a growth rate above 8 per cent in this period are fertilisers, pesticides, basic metals, and food products.

Reference was made to the rapid creation of capacity in some areas under the policy of 'liberalisation'. This has led to the problem of unused capacity and is one of the major causes for industrial sickness, which afflicts 689 large and 12,868 small scale industries. Another source of capital under utilisation is the alleged inadequacy of the demand for the product. In some cases, the problem has been engineered, as in allowing import of capital goods even when these goods are domestically produced. This also true of our power generating industries like BHEL and a few other consumer durables. Here what is needed first is a policy change to use domestic capacity and second to restrain capacity creation in some areas which are not meeting the needs of the mass of its people.

Finally some comments are needed on technological upgradation for which foreign collaboration agreements have been approved and entered into. In this regard, the Reserve Bank Survey and Economic Survey figures are

revealing. In the seventies the number of foreign collaboration averaged an annual 250, in the early eighties they doubled to over 500, and stand at 957 in 1986 and 853 in 1987.[38] A study of the increasing number of foreign collaboration shows that a) a large number of them are repetitive, involving increased foreign exchange outgo, and could have been avoided if there was a monitoring of the agreements and if the receiving company is required to make available the technology to any other who needs it on payment: (some foreign agencies refuse to accept this diffusion provision, and the question of excluding them from entering into an agreement should be seriously examined) : b) some of the agreements are in non essential consumer goods areas like lipstick, toothpaste, icecreams which should have been denied: c) the RBI study shows that one of the main reasons for collaboration approvals is that they will result in increased export, which they have not. They have, as in the case of a number of Japanese agreements raised royalties and extended them over a period. One of the disturbing related recent developments in the area is that foreign firms are now allowed not only to subscribe to 40 per cent equity of a company to be established in the country(under FERA rules) but also to raise the other 60 per cent equity from the stock exchange, which will revert to the position when management and company control were completely in their (foreign) hands: similarly the tight calender for indigenisation has been relaxed (it was not always respected) to allow for 30 per cent of the product to be permanently imported, which is a serious disincentive to our domestic R & D. There is need for an overall review of the policies, techniques and machinery for technology import aimed at technological upgradation which should be based on the priorities for which foreign technology is to be imported, and the kind and terms of the technology called for. At

present there is some confusion with a simultaneous increase in the foreign exchange payments along side of mounting expenditures on imports of raw materials, machinery and spares, to the point that there is a question as to whether technology is being imported, or whether under its guise raw materials, machinery and stores are being imported. With the serious high trade deficit recorded in the first quarter of the current year in addition to the growth of domestic industry, this review of foreign collaborations and technology transfers takes an added urgency.

Public Sector

The public sector enterprises have been the subject of 4 important reviews and reports.

The Bureau of Public Enterprises reviewing the performance of 191 out of 244 operating units in 1987-88 reports that the coal sector losses at Rs.307.04 crores were the highest, followed by textile units, Rs.177.38 crores, chemical fertilisers and pharmaceuticals, Rs.166.95 crores and consumer goods, Rs.129.87crores. The reason given for this poor performance are unconvincing and are the usual routine ones - the interim relief burden, payment of dearness allowance arrears, rising input costs and power bottlenecks. On interim relief the extra expenditure from 1 January 1988 to 31 March 1988 was Rs.750 crores: on increased cost of inputs, there was a doubling of costs. There are 37 sick units and a net loss of Rs.401.10 crores from the 191 units taken over by the government, against Rs.271.50 crores in the previous year. All the units in steel, coal and lignite, gold, lead, iron, crude, fertiliser, cement and power generation record a better physical performance than in the previous year. Production declines are registered in aluminium, zinc and copper. The 191 units earned a net profit of Rs.1748.83 crores which was a decline of Rs.83.06 crores from that of the previous year. 96 enterprises earned a net

profit of Rs.3480.67 crores (higher by Rs.21.38 crores over the previous year.) As usual the petroleum sector was the major profit earner at Rs.2074.57 crores. This rather dismal report calls for some bold decisions by the government and parliament, and that is to shed some 100 enterprises which are perennially loss making and takenover from the private sector or which are not within the ambit of the Industrial Policy Resolution and the Industry (Development and Control) Act). I have in another publication name these 100 units, which can be sold or liquidated.[39]

The second report is that of the parliamentary group on cost effectiveness which suggests an immediately feasible alternative to the above in freezing the social responsibility of the public sector enterprises for a few years, by giving these tasks a lower priority and in any case for them to be funded by the budget, in having a moratorium on strikes and lockouts for a few years, in giving effect to the scheme of workers participation in management, and in developing a proper balance between autonomy and accountability. All these have been repeatedly recommended and even this mild dose of improvement is not being acted upon. One means of cost effectiveness not dealt with by the committee is the need to break the technological dependence of capital goods and basic industry sectors like BHL, HEC etc. on transnational corporations and for them to develop self-reliance.

The third report is that of 32nd report of the Parliamentary committee on public enterprises which states that the enterprises need operational autonomy, that the daily interference in their management by bureaucrats and ministries must stop, that the number of reports required of them needss to be reduced sharply, and that government

nominees on their boards should not have veto powers. These again are a well known set of recommendations, which have been made by the Arjun Sengupta committee, of which some like the holding company and Memorandum of Understanding have been tried. They aim at alleviating some of the worst problems faced by the units, not at solving them. Even so those, like the Memorandum of Understanding, have not produced the results expected of them.

The fourth report is the Annual report of the ministry of programme implementation for 1987-88[40] on 14 mega projects each with investment over Rs.1000 crores totalling Rs.27,699 crores, 110 major projects each with investment above Rs.100 crores totalling Rs.38650 crores, and 187 medium projects each with investment about Rs.20 crores totalling Rs.9351 crores. It states that due to time and cost over runs, wherein time overruns are even more critical because of the disruption caused to inter sectoral balances, the cost of delay in implementing the public sector project is an enourmous Rs.14,550 crores. It points out that the foremost delaying factor is the rapid turnover of the top management, the delay in filling vacant management posts, the supply equipment, indigenous or imported. Its major conclusion is that the prior question before the country on the public sector enterprises is not the non-question of whether there should be a public sector, but how much public sector can be successfully managed with our resources - financial, material and human. The answer to that question also is in my publication referred to earlier.

One general question is raised from a study of these reports is how far the public sector enterprises have promoted balanced regional development, including

countering the backwardness of backward areas. The ASI data shows that increasingly public sector capital movement are towards industrially advanced states like Maharashtra, West Bengal, Tamilnadu and Gujarat who together account for 55.6 per cent of the capital investment, 61.4 per cent of public sector employment and 69.3 per cent of the net value added. This means that locational decisions are not made on the basis of industrial policy legislation or declarations of regional balance and equity, but on the basis of the existence of natural resources or developed infrastructure, which is what also guides the private sector.

Private sector

The reports of the private sector firms for 1986-87 of ICICI, RBI and CMIE and for the previous year 1985-86 of Commerce refer to what the RBI calls the subdued performance of the sector and ICICI terms decline in profits after tax. The RBI survey[41] covering 531 companies for the year 1986-87 reports that the growth rates in value of production and sales were lower at 8.1 and 9.0 per cent compared to double that at 16.3 per cent and 15.2 per cent in 1985-86 their net value added increased at a lower 7.1 per cent compared to the previous year's 16.1 per cent, the number of companies declaring losses increased from 132 in 1985-86 to 163 and the growth rates in gross profits declined sharply from 20.7 per cent in 1985-86 to 3.6 per cent in 1986-87. The ICICI report[42] is equally sombre, covering 417 companies assisted by it (which is 50 per cent of all private sector companies), and states that the 1986-87 value of production was 7.6 per cent compared to 15.9 per cent and 18 per cent in the 2 previous years. The decline in profits after tax from 15.6 per cent in 1985-86 to 11.3 per cent in 1986-87 (with a further fall anticipated in 1987-88); while their imports of raw materials

and spares increased from 17.9 per cent of the value of production to 21.6 per cent between the two years, which involved a 14.2 per cent increase in foreign exchange expenditure, there was a poor export performance in which only 133 companies were involved, receiving incentives of increase of 10.1 per cent, with export increase of only 3 per cent. In the export area, smaller companies did better those with gross fixed assets of Rs.5 crores and below achieved a ratio of exports to sales of 21.4 per cent, while companies with gross fixed assets over Rs.50 crores, had a rate of 4.4 per cent. The CMIE survey[43] of 719 large companies with sales of over Rs.5 crores also show a declining performance in 1986-87 of 6 per cent compared to 7 per cent in 1985-86; net profits after tax declind to - 2.5 per cent against the previous year's - 4.9 per cent; gross fixed assets increasing at a lower rate of Rs.3572 crores compared to Rs.4880 crores and gross profits after tax declining to - 9 per cent compared to the previous year's + 24 per cent. The study of 520 private sector companies by Commerce[44] shows a much better performance in 1985-86 - of 13 per cent rise in sales, 17.4 per cent increase in fixed assets and 25.7 per cent increase in profits. But even this report states that the tempo of growth of production of the companies are stagnant at 8.5 per cent in 1984-85 and 8.1 per cent in 1985-86 and that the improved profits were due to inflation. Three features of these reports are puzzling: the growth rates of the ICICI assisted companies production and CMIE reported companies for 1986-87 do not come any where near the 9.1 per cent for that year recorded by Industrial production index in Table X. The RBI, Commerce and CMIE record are a little less at variance with the index. Second there seems to be no relation between the parameters for private sector finance in the Seventh Plan document and the actuals. In the Seventh Plan, private sector

financing was to be 53.1 per cent from their own resources, 28.1 per cent in borrowing from the household sector through the capital market, 15.2 per cent through term lending institutions and 3.2 per cent from international loans. RBI reports that the actuals were: from internal sources 40.6 per cent in 1980-81, 30.6 per cent in 1981-82, 32.31 in 1982-83, 42.9 in 1983-84, 45.1 per cent in 1984-85, 36.2 per cent in 1985-86 and 32.76 in 1986-87, while external financing was 59.4 per cent, 69.4 per cent, 63.7 per cent, 57.1 per cent, 54.9 per cent, 63.8 per cent, 67.3 per cent for these years. The third issue is that over the 4 years 1982-83 to 1986-87 their draft of financial resources through long term borrowing, debentures, bank loans, unsecured loans and deposits doubled from Rs.7100 crores to Rs.14,200 crores, while the rise in the value of their production during this period was only 60 per cent. The above major reliance on borrowing is seen in the sharp rise of their debit equity ratio from 0.63 per cent in 1982-83 to 0.94 in 1986-87.

Looking at the performance record of the public sector companies and that of the private sector companies through these various report, the feeling of industrial robustness and resilience generated by the Industrial indices are somewhat shaken.

1987-88 was also the year when the government introduced in parliament the Companies Act (Amendment) Bill 1987. The bill faced a storm of protest from industrialists and company secretaries for its violations of the Companies Act relating to the issue of prospectus, which is practically not issued, financial disclosures (which is not the practice), inter-corporate investments (which increased family companies and managerial remuneration, which is several times higher than the permitted Rs.3000 per annum). The Bill has also many

positive provisions in bringing some discipline in private companies, in providing for compulsory redemption of preference shares, and in the provisions on share transfers. It has serious omissions on its mode of enforcement, leaving out several types of service contracts, the application of section 58A of the company law board, not making directors collectively and individually responsible for all defaults, allowing delay in publication of company accounts and matters relating to nonresidents and the underground wealth and incomes. It is hoped that the revised bill will meet these issues.

Industrial sickness

There is little new to report on industrial sickness beyond what has been set forth in previous mid term reviews except to update the data [45], which is not really up to date being over 18 months behind. As of December 1986, the Reserve Bank reports that the number of sick units, large, medium and small increased from 24,550 in December 1980 to 1,47,740 in December 1986, of which 714 were large firms with outstanding bank dues of Rs.3287 crores, 1250 medium firms owing Rs.281 crores, and 1,45,776 small scale units with bank dues of Rs.1236.4 crores. From this, it will be seen that the major problem is with large firms and that the smaller the size, the smaller the problem. What is worrisome is the size of the irremediable sickness problem. Of the 714 large sick units, banks studied 653 and found that 383 were potentially viable. This means that over 40 per cent of large sick units are irremediable and if so confirmed by the Board for Industrial and Financial Reconstruction (BIFR) should be sold and the funds owing to the Bank amounting to Rs.1468 crores recovered instead reporting year after year the increase in the number

of large sick units with the growing dues to the banks. The Mid Term Appraisal expresses this suggestion in a more restrained manner when it attributes the problem of sickness to 'the existence of barriers to exit faced by declining industries and firms'. No one wants to face this unpleasant fact that over 331 large firms are in the last throes, that they have gone beyond the stage of mere sickness and they should be provided the means of exit. The barriers to this barrier are the political parties and the trade unions; but this should be overcome in the interest of the economy, the trade unions and the country. The long term problem is how far the liberalisation policy, which has been in operation for near a decade and to which we are committed, can restrain large firms who have less and less of controls to face, and who can start from zero protection, can operate in an oligopolistic market, without increasing the volume and incidence of sickness. As far as large firms are concerned, their sickness is not due to the litany of eight issues set forth year after year by the Reserve Bank - mismanagement, diversion of funds, faulty project planning, technological obsolescence, demand recessions, shortage of power, non-availability of raw materials and poor industrial relations. They are due to the manner in which large firms operate in our oligopolistic market. Either the liberalisation policy should be modified, of which there is little hope, or the sick units should be liquidated. In the small scale sector, the numbers are large, but the people involved (as workers and managers) as well as the funds owing to the bank are small, and here the 8 causes listed for industrial sickness by the Reserve Bank applies. A little over 10 per cent of the sick small units, 10946 have been found viable and they should, along with the viable large firms, be immediately rehabilitated. Further the breakdown of industrial sickness by states shows

Maharashtra leading with 161 sick units, followed by West Bengal (146), Gujarat and UP with 68 each, and Tamilnadu. Maharashtra and UP being the home of over 50 per cent of the small sick units raises the question whether both policy and legislation should not be modified to entrust the states, who have the local business expertise and know the local conditions, with responsibility for preventing sickness, identifying when it occurs and rehabilitating the viable units speedily provided they are given the needed resources. At present the states are mere on-lookers of this tragic situation.

Small scale industry

The data on small scale industry is known.[46] First the definition of small scale industry needs review. At present all manufacturing units which are registered under the Factory Act are large scale or non small scale, and all unregistered units are lumped together as small scale. With the Electronic revolution, this definition is wearing thin and needs to be looked at again. Second small scale units are divided into traditional group comprising khadi, village industries handloom, sericulture, handicrafts and coir products on the one hand and the modern small scale industries including power looms on the other. This classification also needs review because it is not in practice observed either by states or Union authorities and financial institutions, and also because some of the traditionals like sericulture and khadi might be moved to the modern sector, atleast to ensure that their input needs including credit are fully utilised. Third there seems to be no relation in relation to the contribution which the small scale sector makes to the economy - in value added, in employment and exports - and the outlay provided for it in the various five year plans which range from 1.5 to 4 per cent

of the plan outlay. If the basic features of the small units are to be further developed, with their decentralised structures and functioning, their employment generation which is estimated at over 1 crore of persons, their low capital intensity of 0.5 to 1, and their problems of low output and low wages and low surplus to be countered, the Plan frame for the small scale sector should be recast; starting with atleast doubling its outlay; increasing the rural and urban credit agencies serving it; making their access to the agencies easy, and procedures simple; limiting the agencies' access to the 'larger' small scale units in semi urban areas; stopping the process of dereservation which has become part of the liberalisation and industrial modernisation policy; - leaving all traditional areas and tiny units to KVIC; and above all establishing a small industry commission, both at the Union and state levels, which will, through providing training, and research and common testing facilities and paying special attention to backward regions, help revive this vital but dormant sector. If there was some real decentralised functioning of the commissions - which have been time and again recommended; the various funds set up to revive the units, which now number over 15 lakhs; through the Small Industries Development Fund set up in IDBI to provide refinance for expansion, modernisation and in some case rehabilitation of the small scale sector; and the National Equity Fund which is to provide seed capital to small entrepreneurs in rural areas and which Fund needs to be quickly expanded; - there will be the needed galvanised activity in this neglected sector.

On the basis of the general background of the Industrial sector and manufacturing subsector it is now possible to review briefly the status and prospects for this year of some individual manufacturing items.

Capital goods The capital goods industry is a wide ranging conglomerate, ranging from mining, jute, cement, printing, textile machinery to steam and hydro turbine and boilers. Some of these specific items like machine tool, metallurgy are taken up later for brief detailed comments. In general the capital goods industry is today in poor shape because of the limited domestic market which results in diminished and diminishing investment in it and is caused by the absence of domestic technology creation and excessive dependence on foreign technology. The industry also faces severe and unequal competition from transnational corporations, which because of international recession dump their capital goods in India. India's tariff policy since 1985 has not been of help in the matter, as the 1985-86 budget cut the customs duty on capital goods from 105 per cent to 45 per cent and in the case of some capital goods to 25 per cent. When later in the 1987-88 budget, realising the damage done to the domestic industry, it was raised to 85 per cent, it could not prevent the dumping by TNCs. The result of this fluctuating policy, low capacity use, and absence of domestic R & D is that capital goods produced in India are qualitatively not up to the international standard, and face the problem of high prices. Among the reasons given by the capital goods (main) committee for rejecting applications for import of capital goods, high prices do not appear as a negative factor. For 1988-89, the capital goods industry will continue to produce limited amounts under low capacity use conditions. To revive the industry, the mid term appraisal rightly proposes an active government policy of domestic purchases of capital goods, which is the opposite of the trend set forth in the 1988-89 budget as referred to earlier.

Machine tools The machine tools industry which is part of the engineering sector, has at present 151 units in the organised sector and 300 units in the small scale sector, with 10 large firms producing 75 per cent of the product. The capacity in the organised sector is Rs.475 crores and 75 per cent of the capacity is in use. The Annual Report of the Department[47] points out that for industry to grow at 8 per cent (which is the Seventh Plan target), this sector of machine tools should grow as 19 to 20 per cent, but has been growing during the Seventh Plan at 4 per cent. Here again is a puzzle as to how without the machine tools underplanning, the high industrial growth rates of 8-9 per cent have been attained, pointing to the major role of imports in the area, which will be referred to later. The reason for low growth in the machine tools section are varied and multifarious and are clearly listed by the Annual report. They include depressed demand for machine tools from major users like automobiles, ancillaries, industrial plants and power equipment, inadequate investment in the small sector plants and machinery, sharp rise in production costs, particularly in raw materials and components, increased imports both of technology and CNC machine tools, as referred to earlier. Here, it is pointed out that the domestic industry can produce CNC machines, their production increasing from 42 at the start of the Seventh Plan to 130 today. But even so, this is only 16 per cent of the country's total machine tools production and a mere 20 per cent of imported CNC machines. The industry also faces the problem of overmanning, resulting in a rising labour capital ratio and the even more serious problem of obsolescence of its capital stock. In this matter, the way forward for this year and in future years is to continue the process of diversification in the industry by importing CNC technology which is growing and changing fast and adapting it to our

technical conditions. The major problem faced by the industry which allows a few large firms to produce the major part ofmmachine tools, as noted earlier, is the large and somewhat formidable barriers to entry, expansion and exit leading to dispersion, heterogenity in size, technology levels, market access and high costs conditions. The policy of import substitution and the protected market added to the problem; one result of which is that the machine tool market is essentially domestic one: the high exports of the 60s falling off today in view of uncompetitive nature of our products. There is need for the export competitiveness of large firms to be improved and for the small firms to concentrate on intermediate products. There is also need for R & D in this area to be developed intensitively with the help of IITs, universities, CMTI and CMFI particularly in the sophisticated fields. The recent permission of MRTP and FERA companies to enter the machine tool area should be a means of developing our own state of the art technology from 1988-89.

Automobiles . The automobile industry presents a mixed picture as the table below shows:

Table XI

Items	1986-87 No.of units	Installed capacity	Production	1987-88 No.of units	Installed capacity	Production
1.Commercial vehicles	13	2,64,500	94,000	13	2,64,500	1,00,000
2.Cars	5	1,70,600	1,20,000	5	1,70,600	1,35,000
3.Two wheelers (motor cycles, scooters mopeds)	23	21,61,000	13,82,000	23	23,00,000	15,93,000
4.Auto ancillaries (Rs.crores)	..	..	1,250	..	..	1,340
5.Tractors	19	1,15,000	80,475	19	1,15,000	84,000
6.Power tillers	5	16,000	3,407	5	16,000	3,000
7.Combine harvesters	8	546	40	8	546	40
8.Diesel engines	34	3,36,000	1,87,000	8	3,36,000	NA

Source: Department of Industrial Development

The table shows low capacity use in commercial vehicles, a rather rapid rate of increase in the production of cars, low capacity use (due to over extending installed capacity) and tremendous diversity in 2 wheelers at 7.5 lakh scooters, 6.5 lakh motor cycles and 5 lakh mopeds; a decline in power tiller production as they are not as popular as tractors for which liberalised loan facilities from NABARD are available. A disturbing feature of the automobile industry is its heavy and growing dependence on foreign collaborations with transnationals. The way was shown by

the Maruti-Suzzuki agreement in 1982 as a result of which when broad banding was permitted in the industry, there was a rush for foreign collaborations - Mahendra with Peugot of France, DCM with Toyota of Japan, Eicher with Mitsibushi of Japan, Alwyn with Nisson of Japan, TELCO with Honda of Japan and Escort with Citroen of France. The result is a double problem - of the annualcapacity exceeding 5.5 lakh numbers being far in excess of demand; and plants being set up with 15000 numbers capacity when the government has decided that economic size for automobiles is 40,000 to 50,000. The problems faced by the industry are the rapid and continuous depreciation of the Rupee vis a vis foreign currencies, particularly the Japanese Yen, as Japan is the major foreign collaborator in the automobile field. This has pushed up the costs of most vehicles, particularly the LCV and the bus chassis - the common man's transport. Second there is need for simplification and standardisation of bus chassis with a view to increase the passenger's comfort and enhance fuel efficiency. There is also the problem of the process of indigenisation of the vehicles and ancillaries being slowed, as a result of the pressure from the foreign collaborators. The auto ancillary industry with 250 units in the organised and a large number in the small sector produced Rs.1240 crores of ancillaries in 1987-88, and will move towards Rs.1500 crores this year. Its competence and efficiency, in which the South of the country has specialised is such that there should be no let up or relaxetion in the schedule of indigenisation.

Metallurgical and other machinery The 27 firms working in the metallurgical machinery including steel plant, foundry, pelletisation plant and other steel equipment, produced Rs.95 crores of machines in 1987-88 and will produce Rs.100 crores machines in the current year.

The other five machinery sections are jute machinery where 15 units in the organised sector, and 140 small units produced less than Rs.3 crores in 1987-88. This is a reflection of the unsatisfactory state of the problem ridden jute industry. If the Jute Modernisation Fund of Rs.150 crores is used to modernise the industry, there will be new demands for new machines which the sector must be prepared to meet. The paper and pulp machinery in which 33 firms operate produce machinery for Rs.29 crores in 1987-88 and an expected Rs.35 crores in 1988-89, mainly for modernisation of existing plants and improve their viability. The problem with this type of operation is, being order based, it is not in the business of producing the complete plant and equipment of paper and pulp manufacturing machinery. The 12 printing machinery units on the other hand, produce a variety of machines - letter press, colour, offset, newspaper rotaries and for this year will be producing near capacity at Rs.25 crores. Despite the steady expansion of the industry there is a supply demand gap which is now being met by imports. There is a case here for expanding capacity to replace imports. The cement machinery produced by 16 firms who manufacture complete cement plants and components will this year be producing near their installed capacity of Rs.13 crores. This is one of the few areas where domestic technology has developed along with the absorption of foreign technology, so that it can compete effectively in the export field. Here exports should be pushed. Finally, the 616 textile machinery companies have been producing textile machinery and components and accessories for Rs.400 crores in 1987-88. For 1988-89 if the textile modernisation fund is used effectively, production could go up to Rs.450 crores. This again is a group where growth and health depends on the textile industry which is not in good shape. Certain general features of the machinery producing area may be noted. All of them with the

possible exception of textiles machinery are operating at a low level because of the limited domestic market. They therefore do not enjoy economies of sale and except for cement machinery are not internationally competitive. The demand for their product is a derived demand and the drought of 1987-88 may have a dampening effect this year on their actual achievements. What has been referred to for the current year are the targets. Within the limits of sub optimal size, all of them need an infusion of technology.

Textiles, cotton, man-made & silk: The textile mills numbering 984, have faced as accelerated rate of closure, from 68 closed mills in 1985, which marked the start of the 3 year textile policy, to 133 closed mills at near the end of the policy in December 1987. 48 mills closed due to strikes and lock-outs, involving 1.71 lakh workers. Of the closed mills 109 where examined and less than half (51) found viable. The mill share of textile production is decelerating at a rapid rate (in favour of the power loom) from a share of 28.6 per cent in 1984-85 to 23.7 per cent in 1987-88, whereas the share of power looms increased from 71.4 per cent to 76.3 per cent. The price factor was analysed earlier under the cotton section. The sick textile mills, as noted earlier owe the banks Rs.1113 crores. In a word, all developments are contrary to the principles and promises set forth in the 3 year textile policy. In order to revive, this industry were the 1988-89 budget has made a rather important effort to reduce the duty on man made fibre in all its varieties - polyester, filament yarn (PFY) from Rs.83.75 to Rs.53.75 per kg. polyester staple fibre (PSF) from Rs.28 to Rs.18, nylon filament yarn (NY) from Rs.70 to Rs.40, acrylitic yarn (AY) from Rs.10 to Rs.8 viscose staple fibre (CSF) for blending with cotton from

Rs.7 to Rs.5, cotton yarn of less than 35 counts by 10 per cent and that above 30 counts at 3 per cent per count, textile machinery from 15 to 5 per cent and on machinery for garments hoisery and woolens to 35 per cent. The minister introducing these concessions stated that these concessions amount to Rs.274.26 crores, while in the previous year the production of PFY, PSF, NY, AY and VSF amounted to Rs.516 crores. These important concessions have many effects in view - of reducing inventory and idle capacity, increasing demand and arresting the smuggling of low priced synthetics from neighbouring countries. If the concessions are passed on to the consumers, they will have met one of the aims of the 3 year textile policy. There are other problems relating to technological obsolescence of the textile mills and structural problems relating to which class of consumers will benefit from the concessions to man made fibre referred to earlier. On the silk front, the Rs.600 crores programme to increase sericulture and double raw silk production to 15000 tonnes is timely as the world demand for silk garments and fabrics is booming, and Japan for reasons of high labour cost is vacating this field. The project is also internally sound as with its plan to set up 4 new silk exchanges at Andhra Pradesh, Tamil Nadu, Jammu & Kashmir and West Bengal, it will eliminate middlemen and ensure remunerative prices to the producers. There are two problems to be faced. First is the low quality of 90 per cent of the raw silk produced in the country, which means only 1000 tonnes out of 8000 tonnes produced could be exported. India has made up this deficiency by importing silk yarn from China - in 1986-87 2000 tonnes were imported. But now China has decided to stop yarn exports and will export only silk fabrics, which means that India must upgrade the quality of its silk yarn and increase its exports from the present Rs.250 crores out of a total of silk and silk goods production of Rs.2000 crores in 1987-88.

Jute textiles: Jute textiles are in a more serious crisis, with production in the first 5 months of 1988 being lower by 10 per cent (to 4.25 lakh tonnes) due in the main to the lower output - hessian, sacking, and/or carpet backing. The domestic markets for jute is stagnant at 10-11 lakh tonnes and exports sharply reduced from 5 lakh tonnes to 2.5 lakh tonnes. The response of the mill owners to this situation was to close about half of the mills (26 out of 52) and to demand reduction of the workforce. Some reduction of the workforce (by not replacing those who retire or filling vacancies) is possible but a massive reduction of the work force to the extent of one third is out of the question. As of the 1.2 million families of jute mill workers, 4 million are small and medium jute farmers and they are the ones who suffers from the closure. The real problem with the jute industry is that, even more than textiles, it is an industry on the decline. In the short run, the mill owners have contributed to the problem by siphoning off the profits and surpluses have allowed the mills to become obsolescent and have used only Rs.20 crores of the Rs.150 crores of the 1986 November soft loan scheme for modernisation of the mills. The total modernisation of the mills require Rs.400 crores which can be found, if the mills and trade unions work together on the modernisation programme. Meanwhile a short term alleviate measure is the government's Jute Backing Materials order under which jute bags are to be used for packing and transporting sugar and foodgrains, and upto 70 percent in the case of packing and transporting cement and 40 per cent in regard to fertilizers. Naturally these other producers resent this order because they want to continue to use polythene bags. This order was released as from 1 July 1988 in the case of cement plants. Others will follow suit. The real solution to revive the domestic and export demand for jute textiles - without such artificial proppingup is to restructure and modernise the industry to meet the demands. This may involve redeployment of some of the jute workers.

Tyres and Rubber goods

The country consumes 3,67,725 tonnes of rubber (natural, synthetic, and reclaimed) in the proportion of 70 for natural rubber and 30 for synthetic. This is the basic reason why some 50,000 - 60,000 tonnes of natural rubber has to be imported each year. This could be eliminated by expanding the capacity of synthetic rubber producing firms and allowing them economies of sale, so that there can be some modernisation of their higher production. The major users of rubber are the tyre producers who in 1987-88 produced 140 lakh of automobile tyres, 140 lakh of automobile tubes, 440 lakh bicycle tyres, 275 lakh bicycles tubes, and 180 lakh fan belts. In this area, the 8 firms have made the country self sufficient. There are however two issues. First there are a large number of specialised rubber products which are still being imported to meet the demands of petroleum, oil drilling, industrial machinery and also the automobile industries. The companies should turn their attention to this area and produce the rubber goods needed by these industries. The second problem follows from the oligopolistic nature of the tyre producing industry. There is a constant tussle between them and the tyre users over the question of price. The industry makes a continuous claim to hike the price. BICP has been investigating this claim since 1973 and has made 4 enquiries in 1978, 1982, 1983 and 1985. Its main finding is the case for a price hike based on cost increase is weak. Its recommendations are used by government as the guideline to resolve the oft recurring price conflict on automobile tyres and tubes. The other technique used by government to control the oligopoly is to increase the capacity of the industry, which it does annually.

Bicyle: Bicycle production for this vast and mainly poor country is at a low 60-65 lakh per annum both last

year and for the current year. There is some unexplained element here. 8 firms are registered with the DGTD and are responsible for the production of the 60-65 lakhs of bicycles - which is near enough to their capacity of 72 lakhs. The puzzle in that other units have registered for installed capacity of 56.8 lakh bicycles, but no production has started in this second capacity which has been licensed - Why?

Fertilisers and chemicals:

Fertilisers have been going through a cycle of glut, demand recession, and surplus stocks during the past 3 years partly because of the poor monsoons during these years, and partly because of wrong anticipation and judgement by the government. In 1984-85 fertiliser production was 53.8 lakh tonnes, which involved use of 70 per cent capacity alongside of imports of 36.2 lakh tonnes: the 1985-86 production was 70.7 lakh tonnes, capacity use 80 per cent and imports 25.0 lakh tonnes: in 1986-87 40 lakh tonnes were produced, capacity use 76.8 per cent and 2 lakh tonnes were imported. Because of the increased capacity created from 90.94 lakh tonnes in 1986-87 to 92.96 lakh tonne, the 1987-88 production increased to 47.29 lakh tonnes, though capacity use declined, as noted earlier. But consumption fell sharply from 96.14 lakh tonnes in 1986-87 83.19 lakh tonnes in 1987-88 due to monsoon failure during the 4 years. The gap between consumption and availability during these years was met by reducing inventories, so that in March 1988 they stood at 26.39 lakh tonnes as against 38.29 lakh tonnes in March 1987. The huge stocks led manufacturers to compete with each other in giving discounts, the public sector units alone giving away Rs.145 crores in 1986-87. Further the government at first in February 1987 asked the firm not to sell more than 60 per cent of their production for rabi and in fact penalised 4 plants for violation of this instruction. In October 1987 the plants

were allowed to sell 80 per cent of their stock and 50 per cent of their production, as at that time stocks were 40 lakhs tonnes with industry, and 20 lakh tonnes with government. A further element of confusion was the budget annoucement of 7½ per cent discount by fertiliser companies which would amount to Rs.350 crores. Public sector units announced the discount and the private sector had to follow. It is unfortunate that as the discount was not expressed in reduced prices, it was the middleman and not the farmer who got the benefit of the discount. For the current year 1988-89, the production target has been fixed at a high 88 lakh tonnes, and to achieve it, 13 new and expanded plants - 8 nitrogenous and 5 phosphorus under way. Recently the government has resumed imports - in a sense it was forced to do so to keep the promise made bilaterally with EEC countries. This together with the delays in construction, particularly in using the gas through the Hajaira line, puts in doubt the plans to set up the new plants referred to earlier to meet 70 per cent of the increase in consumption in the Eighth Plan. To clear the confusion surrounding the fertiliser production, consumption and imports, it is necessary for the government to make more careful and precise estimates of demand during rabi and kharif and domestic production; to raise the price in order to reduce and, in time abolish, the fertiliser subsidy; and to review the contract with the foreign collaborators; and reexamine the construction schedule on the gas based plants, so that one of its main purposes of fuel economy and efficiency is achieved. In regard to chemicals and petro chemical which are highly technology oriented, to which domestic R & D are making a good contribution, the Annual report of the Department shows growing production of phenol, methonol, acatene, and acetic acids. The latter feeds the drugs and intermediaries. Inorganic chemicals are feeding other downstream industries like soda ash and caustic soda, which will be referred to later.

Plastics

The 1987-88 consumption of plastics is placed 12 per cent higher despite higher global prices and duties. 90 per cent of plastics units are small scale and to help them government imports 50,000 tonnes of LDPE through STC. Plastic production in 1987-88 was reduced because of the closure of 2 plants, including the infamous Union Carbide. Against this background, the government has established plastics as a thrust area and as a result of international negotiations has located 3.15 lakh tonnes for possible imports, involving imports of 56,000 tonnes this year 1988-89, and 2.58 lakh tonnes in 1989-90. The bulk of the imports - 1,62,000 tonnes will be from Europe, 80,000 tonnes from the US and the rest from South America. The problem faced by the government and domestic users is that the export prices of overseas supplies are much higher than domestic prices - in the case of LDPE the difference is $15000 in HDPE $1400, PVC $1225 and PP $1350. This is serious, because the growth rate of Indian plastics industry is one of the highest in the world, and these imports at their high prices plus customs duty will disrupt the domestic market and industry. Further the foreign producers are satisfied with their domestic markets, and are not keen to enter the Indian market, which has no after sales service and where the system of floating tenders is in use. Hence it is necessary for the government to review the negotiations and their results, and not rush into imports. It should first set up machinery to monitor international prices, and adjust the customs duty accordingly. There is some urgency in this matter of augmenting plastic supplies, as already plastics are being replaced in several industrial uses and consumer products.

Drugs and Pharmaceuticals:

There are several problem areas in the field of drugs and pharmaceuticals. First the production for 1987-88

reported in the Annual Report of the Department[48] is inadequate, particularly in the case of bulk drugs (at Rs.480 crores) but also in regard to formulation (at Rs.2350 crores). Second in December 1986 government announced new measures to speed growth, increase essential drugs, ensure economies of scale which have had little practical effect. Third in August 1987 it issued the Drug Price Control Order (DPCO) which reduced category I drugs to 26 and category II drugs to 139, and removed price control from 181 drugs of the 1979 DPCO. In effect, important drugs and life saving vaccines have been left out and with the lifting of price control, multinationals which produce 33 per cent of drugs were able to raise their prices further and increase their profitability. The drug industry objected to the August DPCO minimal price controls, namely the 15 to 17 per cent hike in the retailers' margin and the 3 per cent in the wholesalers. They also objected to reducing the prices of 20 formulations because they first want the ceiling on drug prices to be decided. As for the transnationals, their objections to price control rests on somewhat opposite considerations. They object to reducing the prices of some drugs and raising the price of others till the trade margins were first settled. In effect the government has been forced to accept these demands. In fact the powers of the transnationals are steadily increasing: they were able to sabotage the public enquiry into ill effects of certain of their drugs, using questionable means of violence, fraud etc., as they saw the enquiry as a means of loosening their hold on consumers and the medical profession; they are able to circumvent the supreme court order to the Drug Controller to determine within 6 months whether drugs such as Hoechst analgesic kept out of Germany by the protest of its consumers but sold by it freely in India, Ciba's clioquinol banned in industrial countries but being sold by it in India, and numerous US drugs not approved for

use in the States but sold in India, are harmful, by having the period extended to a year during which time, there will be stockpiling in the multinationals and Indian drug firms of these dangerous drugs which will have to be sold even after banning. On this basis, what is needed is first a clear drug policy which could inter alia, involve a) the place of adequate research into the main Indian diseases which should be inventoried such as gastro entertites, those caused by malnutrition, goitre, leprosy, TB, malaria, enlarged spleen, eczema, which should be financed and undertaken by MRTP, FERA and transnational firms, leaving research into diseases of the well to do of the population, such as blood pressure, cardiac ailments, cancer, AIDS to be financed and undertaken by the well to do: b) the banning of trade marks and harmful drugs being purveyed by transnational underguise of their being Indian FERA companies: and c) permitting only drugs with generic names. Indian scientists are qualified to advise government on such a policy which needs somewhat urgently to be formulated and implemented.

Paper and newsprint:

The Department's Annual Report for 1987-88 states that there are 288 paper and paper board units with installed capacity of 27.88 lakh tonnes, to which should be added the 9 new units commissioned during the year with an installed capacity of 60,000 tonnes. The mills produced 16.50 lakh tonnes of paper and paper boards in 1987-88 which met the country's demand, leaving only certain special varieties of paper for imports. A major problem faced by the industry is the low and continuously declining capacity utilisation, which, in the 80s declined from 76 per cent at the start of the decade, (being 96.7 per cent in 1951) to 59.82 per cent today. The main cause for this is that of the 288 mills, only 11 are large and of optimal size, the majority being small units numbering 242 which were rapidly established in

the 70s under government encouragement in the interest of what it believed to be equity and efficiency. These units established use second hand machinery, have low capacity use, and efficiency. There is a case for letting most of the inefficient closed 85 small units to be liquidated, and for modernisation of the other small units, along with updating the obsolescent machinery of the large plants - for both of which Rs.1750 crores are needed and should be provided by IDBI. The second serious problem caused by the industry is the rapid deundation of our forests and the pollution of our rivers. The paper industry is one causing serious and continuous environmental damage. On forest deundation, for which both public sector as well as private sector mills are equally responsible the government owned NEFA is destroying the forests in MP, Birla's Crissa Paper Mills and JK Straw products are denuding forests in the east and eastern ghats, Somanis West coast paper mill is destroying the forests in the western ghats, and Thapars Ballapur Paper Mills are ravaging the forests in the South. On pollution, the mills, including the public sector ones, have not installed equipment for effluent treatment, involving a small investment (Rs.2.3 crores), and the result is that the pollution of rivers - Narmada by NEFA and Orient mills, Cauvery by the Ballapur mills - is assuming serious proportion. Similarly the use of 2 million tonnes of straw annually by the small mills as raw materials reduces cattle feed. All this does not mean that the paper industry has no place on the country's development. What it means is that the use of wood from the forests should be regulated, both by a replacement programme of replantation and by imports of pulp to relieve the heavy demand on the denuded forests, effluent controls should be tightened and effluent treatment machinery installed in every mill, and use of straw should be reduced by use of bagasse and other waste products. Sweden and Norway and Canada are examples of countries which have extensive paper and pulp

producing mills, cesing wood from their forest, and yet have the world's most dense forest and unpolluted river water. The other problem of the industry relating to high cost inputs, shortage of coal and finance needs attention and can be dealt with. In the newsprint field, the 5 units established with a capacity of 3 lakh tonnes have a good production record, rising from 64,000 tonnes in 1981-82 to 2.92 lakh tonnes in 1987-88. To replace imports of newsprint, government has issued industrial licenses and letters of intent which adds 7 lakh tonnes in new capacity and makes exports possible.

Edible Oils:

The highly charged and confused edible oil scene is dominated by five major issues- the import of edible oils, the price problem, the vanaspathy issue, the oil seeds import prospects, and the need for a policy. Some of these questions have been partially dealt with under the oil seeds section earlier. First on import of edible oils, which is to cover the gap between demand and supply, there are atleast 4 areas for further study. There is the large volume of imports, their growing continuously, their imports being unrelated to the real supply demand gap, the question of a buffer stock in edible oils and the place of edible oils in the priorities of the economy. The volume of imports was 11.79 lakh tonnes in 1984-85, 12.76 lakh tonnes in 1985-86, 16.41 lakh tonnes in 1986-87, 18 lakh tonnes in 1987-88, which also had a carryover from the previous years of 3.66 lakh tonnes, making the availability for the year (1987-88) 21.60 lakh tonnes. For the current year, the situation is somewhat confused, with the minister for agriculture announcing that in 1988-89 20 lakh tonnes of edible oils will be imported, with no import of oil seeds, while on the next day the minister of state for commerce states that the government is studying the

question of the import of oil seeds seriously. When this confusion is unravelled, we will know what the 1988-89 imports will be - it is likely to be higher than the 1987-88 import. There is the continually rising trend of imports which the above data brings out and for which there are no real reasons. As pointed out in the oil seeds section, earlier, edible oil imports have no relations to the volumes of production of oil seeds; we have years when the domestic production of oil seeds is high, simultaneously with a high edible oil import so that imports seem to have a life of their own - which may be another term for the powerful edible oil import lobby. On the related question of a buffer stock in edible oil, on which the technology mission has been asked to work, this merely diverts the mission from its main task, which is to help produce the improved technologies for as many of the 6 major oil seeds as soon as possible, because as edible oils can be readily imported when it is needed, there is no need for a buffer stock. On the second issue of prices of edible oils, the prices were high till early August 1987, declined during the rest of August and September because of the expectation of a good kharif output following the August rain, followed by a further decline in December, this time due to the import announcement of 17 lakh tonnes of oil and 5 lakh tonnes of seeds. In this unstable and fluctuating price situation, it should be noted that when prices rise as they did in November 1987 by 40 per cent for groundnut oil and 25 per cent for castor oil, because of serious infrastructural inadequacies and marketing defects, the producers do not get the high prices for the oils paid by the consumer. Third, the vanaspathi issue raise many questions. Why is this refined hydrogenated oil among over 7 different major oils given the various concessions, such as a growing share of the imported oils (in 1987 70 per cent of imported oil), most of it at the concessional price of Rs.1500 per tonne, limiting the excise duty on domestic oils

used by vanaspathi. Why is vanaspathi to the extent of 72 per cent distributed to 7 states, who are major oil seeds producers - Maharashtra, Gujarat, West Bengal, Andhra Pradesh, Tamil Nadu and Karnataka? What is the practical effect of the price control on it, which is never observed? In June 1988 against the government imposed controlled vanaspathi price of Rs.335 for a 15 kg tin, vanaspathi was selling in the market at 3-4 times that price. Now the government should place the vanaspathi industry on all fours with other oils, stop supply of imported oil at concessional price to it and let it find its sources in the market, including purchase of edible oil at the market price. In this connection, the government has been allocating directly to the public distribution system imported edible oil at concessional prices in order to keep oil prices down for the poor. In July 1988 it allotted to it 70,000 tonnes, in August 1.25 lakh tonnes and in September 1.5 lakh tonnes. This is good except that the Public Distribution outlets being urban based, the rural poor do not benefit, and evidence is accumulating that oils allocated to it end up in the open market. The amount of imported oil given to it can and should be reduced and monitored. On the question of oil seeds, all imports of edible oil seeds should be canalised, in view of the wide difference between international and Indian prices, and in order to prevent their leakage. The question of importing oilseeds instead of edible oil which is the policy in all other edible oil deficit countries should be followed in India. The import of edible oils should be by phases replaced by important of oil seeds depending on the crushing capacity for each seed. Here the case of safflower stands out, where only 20 per cent of installed capacity which is 29 per cent of total capacity is being used. Moreover because of the high international demand and price of safflower oil, the oil can also be exported,

so that there will be no net outgo of foreign exchange because of import of the seed. Similarly 44 per cent of the total capacity of the solvent industry is rice bran processing. As noted earlier, the vast amount paddy produced in the country should provide the needed bran, if its quality is good, which it is not; and till quality is raised by modernisation of the rice mills, import of rice bran should be undertaken. In any case the ministry of agriculture's opposition to the import of oil seed should be over ruled and oil seeds imported in according with our crushing capacity. Finally there is the question of policy for edible oils. That policy should be built around the following principles: a) vanaspathi is the food of the non rich and so should be given no concessions or priority: b) import of oil seeds should be based on the crushing capacity of each seed and should gradually replace import of edible oil: c) any government distribution of edible oil should give priority to the public distribution system, where its use should be monitored.

Sugar:

Sugar production is on the rise, and can be near 100 lakh tonnes for the sugar year October 1988 to September 1989. Already in the sugar year 1987 October to February 1988 production is 82.40 lakh tonnes, and total availability 128.49 lakh tonnes, for the year as the table below shows:

Table XII

(lakh tonnes)

	1984-85	1985-86	1986-87	1987-88
Opening Stock	13.74	15.79	18.96	26.76
Production	61.43	70.83	85.00	91.92
Imports	11.87	16.19	10.02	9.74
Total availability	97.04	102.01	113.98	128.49
Offtake	81.25	83.05	87.03	92.30
Internal	80.93	82.72	86.81	92.00
Exports	0.32	0.33	0.22	0.30
Closing stocks	15.79	18.96	26.96	36.14

Source: ISMA.

The causes for the sharp rise in 1987-88 production is the increase in the Union statutory price of cane at Rs.18.5 per quintal and the advance announcement of the statutory price for 1988-89, at Rs.19 per quintal, the lower offtake of cane by the gur and khandasari producers, the rebate on excise for early crushing (October and November 1987), and complete exemption from excise for the late crushing (May to August 1988), the hike in ex-factory levy price to Rs.23 per quintal, and increase in the controlled price of molasses from Rs.60 to Rs.120 per tonne. Despite this increased production, prices have remained high due to the lower inflow of khandasari, the strike in the Food Corporation of India, and the rejections of tender applications for imported sugar by FCI and the moving in of speculators. The sugar scene raises a number of problems, some of which have been referred to in the sugar cane discussion. The mills dues to the sugarcane growers has risen sharply during 1987-88, as noted earlier. ISMA and NFCSF attribute this to the decline in sugar recovery, which was an effect of the drought, and higher costs which eroded their profitability. They have proposed a) relaxation of the levy free sale sugar quota to 40:60, b) incentives to mills which can sell more free sale sugar, and c) permission to export molasses which are selling abroad at high prices. While the first request should be examined and reviewed by the government, there is no question of permitting export of molasses which are needed to produce industrial alcohol for the country. The industry has a decentralized structure which does not allow any plant to play an ologopolistic role in the domestic market. The average size of the mill has doubled from 1250 tonnes capacity per day to 2500 tonnes crushing capacity, and even if it further doubled by the end of the century to 5,000 tonnes capacity, which will produce 75,000 tonnes during the year, that represents about 0.8 per cent of the year's total sugar output. What is needed for the mills, particularly for those in UP and Bihar, is a programme of modernisation in view of their obsolescent machinery and equipment.

Leather:

The Leather industry is producing more and exporting more and more of value added products. Exports in 1987-88 were Rs.1245 crores against the target of Rs.1000 crores and the Plan target of Rs.750 crores. For 1988-89 the target is Rs.1400 crores, for 1990-91 Rs.2000-2400 crores. In 1987-88 value added exports were finished leather (39.04 per cent), leather footwear components (26.01 per cent), footwear (10.28 per cent), leather goods (9.20 per cent), leather garments (8.49 per cent). There are however difficulties and imbalances facing the industry. In view of the decline in the stocks of all major species of live stock in the country in recent years due to drought, decrease in grazing land, lack of veterinary facilities, the industry is faced with serious raw materials shortage and so the duty free import of hides and skin is on the increase. One facet of the imbalance in the industry is its division into 3 almost water tight compartments - the organised units registered with DGTD, the small scale units registered with the directorates in the states, and the unorganised small scale and cottage units which produce 85-90 per cent of the total production and produce freely and export without restraint. Another facet is that in the world leather trade of Rs.26,000 crores, 80 per cent are finished leather goods against India's leather exports having only 33 per cent in that category. The most serious problem thrown up by the industry, which in the euphoria generated by its increased production and booming exports is overlooked is that it is the most polluting industry, which has led industrial countries to close down their leather industry. India has taken on the resulting slack, and so it is very important that the government should regulate first the large and medium units in the first category, followed by consortia of small units in the second category, so that anti-polluting equipment is installed at every leather production site, and the environment - drinking water, land on which food and non-

food crops are grown and the atmosphere -- are safeguarded. Not much has been done so far with regard to the second group which is the major source of pollution. They need to be assisted financially to put up the necessary equipment.

Cement:

Installed capacity in cement production increased by 11 million tonnes during the year 1986-87 and 1987-88 to 52.25 million tonnes. Production has been increasing steadily at 33.15 million tonnes in 1985-86, 36.50 million tonnes in 1986-87, and 39.3 million tonnes in 1987-88. In 1988-89 the production target is 43.5 million tonnes. In the first quarter, April-June, production was 10.1 million tonnes. Capacity use during the 4 years has been maintained at 75 to 76 per cent. The major problems faced by the industry, particularly in Andhra Pradesh, Gujarat, Rajasthan, Bihar, Karnataka and Tamil Nadu, have been power shortage, which the 1987-88 drought has worsened and the poor quality and inadequate supplies of coal. To these should be added frequent mechanical break downs and industrial unrest. To help the industry, government has taken some measures which include increase in retention price of levy cement; a varied system of reduction of levy obligations distinguishing between old plants and new units (and within new units varying the obligation according to how new the new units are) and sick and expending units; the encouragement to units to establish captive power plants to meet power cuts; using the world bank loan to help small units to shift from wet to dry process; extension of excise rebate to the industry, and relaxation of price and distribution controls of mini cement plants. The major problem faced by the industry is with regard to the future. The Seventh Plan target of 49 million tonnes (which will not be met) is feasible within the present installed capacity of 52.25 million tonnes. But to meet the Eighth Plan demand of 65 million

tonnes and the Ninth Plan demand of 87 million tonnes, capacity will have to be increased by 3 million tonnes. The other issue is the total decontrol of the industry demanded by the industry which the government states it is considering for 1990. Its effect on consumers and building construction has not been sufficiently analysed. Meanwhile there is need for the industry to take measures to reduce costs and increase its productivity. The country has a long way to go in cement production and consumption, which per capita is 44 kg compared to the world average of 200 kg, 561 kg for Japan and 463 kg for the USSR, 460 kg in South Korea and 135 kg in China.

Caustic Soda and Soda Ash:

There is a production demand gap in caustic soda in 1987-88 with production at 7.95 lakh tonnes and demanded at 8.30 lakh tonnes. Production has registered an increase of 8.9 per cent due to increased capacity of 5 per cent and improved capacity use from 69 per cent to 71 per cent. Because of the small gap between domestic production and demand and to avoid the market being flooded with dumped caustic soda products, caustic soda has been shifted from OGL to canalisation through the State Trading Corporation. The problem faced by the industry is rising production costs due to the high and rising electricity tariff. Hence several energy conservation measures are under way in the industry. The Soda Ash industry with 6 units and a capacity of 10.05 lakh tonnes, produced in 1987-88 10.15 lakh tonnes, which was a remarkable 101 per cent capacity use. To meet the demand and production supply gap, imports under OGL are allowed, additional capacity of 10.75 lakh tonnes have been sanctioned to meet future demand, and the industry delicensed.

Electronics:

The electronics industry which increased its production

in 1987-88 by 37.1 per cent to Rs.5285 crores recorded an interesting distribution between consumer electronics (32 per cent) and computers (18 per cent), communication electronics and industrial electronics at a somewhat slow rate. The table below summarises the growth of 690 items of the industry divided into 9 groups between 1981 and 1986.

Table XIII

(Rs.crores)

Item	1981	%share	1986	%share	% of 1986 over 1981
1. Consumer Electronics	246.28	28.4	1280.74	36.6	39.1
2. Control, instrumentation and industrial electronics	149.97	17.3	530.54	15.2	28.8
3. Data processing systems and office equipments	36.59	4.2	320.60	9.2	54.4
4. Broadcasting and communication equipment	154.43	17.8	350.73	10.1	17.8
5. Aerospace and defence equipment	69.18	8.0	222.00	6.4	26.3
6. Electronic components	172.95	19.9	509.75	14.6	24.1
7. Parts of electronic components	6.21	6.9	18.25	0.5	28.5
8. Electronic materials	0.66	0.1	16.14	0.5	88.4
9. Miscellaneous electronic equipment	31.71	3.7	239.21	6.9	49.8
Total	867.00	100.0	3,487.97	100.0	32.1

Source: CMIE Electronics Production 1981-86.

This 32 per cent rate of growth of industry in 5 years is close to the assessment of the Mid Term Appraisal at 35 per cent. The appraisal calls attention to the fact that growth in the industry is largely limited to the consumer electronics and computer groups. Further and more seriously,

it refers to the fact that electronics growth has been of the CKD variety, with the import bill at Rs.2,000 crores, exceeding 60 per cent of the output. It suggests policy measures to discourage this kit culture and promote genuine indigenisation.

Against this, the two December 1987 policy papers of the department which unfortunately are not commented on in its Annual Report[49] might be examined. The policy set forth in these documents contain a series of general statements about electronics being the key to the future, about its effect of raising efficiency through better data and communication facilities when used in each sector, about its capacity of making the rural poor information rich, about its being a tool to bridge the rural urban gap etc. Its proposal for increasing and infact maximising exports in select electronic areas include a) delicensing of the indigenous technology sector - the annual report states that electronics component industry has been delicensed and broad banded licenses issued; b) technology imports to be opened up based on norms of capacity, prices and fees charged and canalised through ET and T, - The Annual Report states that technology imports and foreign collaboration have been permitted in all areas and units having foreign equity less than 40 per cent are allowed in all areas; c) the department to undertake technology audit covering the phased manufacturing programme (PMP), to obtain feed back that can help in future clearances of PMP proposals, capital goods imports and foreign collaboration - The Annual Report states that this principle has operated particularly in the telephone area: and d) industry is called upon to 5% of annual turnover in in-house R&D - The Annual Report is so full of the R&D work of the department (pp27-38) and also on applied R&D (pp39-58) that there is no report on how this policy on developing in house research is faring. What is known is the reluctance of the industry on this count as also on the proposal for canalising imports because of the wide field covered. The Annual Report also refers to the development of the small scale sector

and the dereservation of certain items from the small scale sector; to MRTP companies being exempted from clearance under section 21 and 22 of the MRTP Act in operating in all areas of electronics except consumer electronics; to the private sector manufacturing telephones, EPABX etc. All this - policy and practice - reported is near the World Bank prescription for Indian electronic development, (for which it has offered a credit of $150 million), extending and completing the liberalisation of the electronics sector through dilicensing of all electronics sub sectors, removing restrictions on royalty payments and technology transfer terms, removing the 40 per cent limit on foreign equity investment, opening up aerospace and defence electronics to the private sector, allowing MRTP companies to operate in the consumer electronic field, removing all quantitative import restrictions and reducing the tariff. In general, this policy recommended by the World Bank will promote mainly the further development of screwdriver technology, which the department's Annual report sets its face against in stating that there is need to "move away from indiscriminate imports of technology and kit based production". The Annual Report for 1987-88 leaves one with the impression that the "liberalisation" in various forms has increased the volume of electronics production, but has not brought with it technological maturity on which the long term health of the sector depends.

Steel:

The steel scene in 1987-88 and at this mid year point of September 1988 presents a complex set of issues. First on the production side, the Annual Report states that the 5 steel plants produced 4.63 million tonnes between April 1987 to December 1987, and in a later release states that production for the year 1987-88 was 6.6 million tonnes. For 1988-89 the SAIL production target is 7 million tonnes. There are

several issues with regard to steel facing the country this year. One is the gap between demand and production. There is a gap being faced this year, as last year of 3 to 4 million tonnes which is filled by imports. For 1987-88 the production from the integrated steel plants was 8.59 million tonnes and from mini steel plants 1.89 million tonnes against the demand of 12.02 million tonnes. For the current year 1988-89 the forecast on production is 9.40 million tonnes from the integrated plants 1.90 million tonnes from mini plants and import of 1.50 million tonnes to meet the demand for 12.75 million tonnes. In fact imports are a long term feature of the steel scenario. On the basis of a GNP growth of 4.5 per cent, the demand in 1989-90 is estimated at 15.16 million tonnes and production 13.89 million tonnes, in 1994-95 demand 20.01 million tonnes and production 19.69 million tonnes and in 1999-2000 demand at 26.2 million tonnes, production at 22.29 million tonnes. Two comments must be made on this data. First these are NCAER's revised estimates, its earlier estimates being overestimates, particularly on the demand side. The revised estimates presented here also are over estimates as seen, for example, in the fact that while the demand for 1988-89 (which is continuous with the demand for 1987-88) is placed at 12.75 million tonnes, for the next year, 1989-90 it jumps to 15.16 million tonnes. These estimates are also at variance with those of the planning commission. The other comment is that the economic growth assumption of 4.5 per cent on the basis of which NCAER derived these estimates may not hold for the eighth and ninth plans, when growth rate of 6 to 7 are being contemplated. A second problem concerns the 10 year plan to modernise the plants at a cost of Rs.11,030 crores. This plan and funds for it are heavily dependent on bilateral aid - Rs.500 crores from West Germany for Rourkela's expansion and modernisation, Rs.1000 crores for IISCO from Japan for its restructuration, Rs.1000 crores from USSR for expansion

of Bokaro and completion of Vizag. The problem is that this ambitious modernisation and expansion programme (to increase steel production from 9 million tonnes to 13 million tonnes) will also make us technologically dependent on diverse technologies from West Germany, Japan and USSR. A third problem concerns the 155 mini steel plants with the capacity of 4.2 million tonnes of crude steel. The government has permitted these plants to increase their capacity by 150 per cent, with plants of 50,000 tonnes per annum at the minimum and 2.5 lakh tonnes per annum at the maximum level. The bottleneck in this important field is that mini steel plants use scrap iron as their raw material, and at the present capacity level, 50 per cent of their need is being imported. These plants have some advantages - lower capital cost, lower gestation period (than integrated plants) easier adoptability of their product and product mix with downstream technological developments like continous casting and ladle metallurgy practices. On the other hand, their raw material - steel scrap - is costly, their future profitability may decline as the integrated plants are modernised and improve, and certainly the modernisation of the mini plants will benefit only a few. The new mini steel plants are being encouraged to replace their steel scrap raw material by sponge iron, of which India has a large supply from coal or gas and iron ore. Another substitute raw material for steel making replacing scrap is sponge iron which was delicensed in 1985 in order to encourage quicker growth of the sponge iron industry. There is a future to the sponge iron route in this country - as evidenced by the registration of 20 million tonnes capacity for production of sponge iron, though to date only 300,000 tonnes are being actually produced. The World Bank states that to make steel production more efficient, SAIL should be privatised, steel imports should be liberalised and the system of administered prices abolished. Apart from the policy issues that this suggestion raises, the evidence

available shows that the domestic unsubsidised price of some steel items are lower here than in Europe and the US.

Non ferrous:

In regard to aluminium, from an estimated surplus of 10,000 tonnes in 1988-89, there is likely to be a short fall this year of 50,000 to 60,000 because NALCO has revised downwards its production estimate for the year from 1.3 lakh tonnes to 80,000 tonnes. This is a large supply short fall at a time when the domestic price of aluminium is Rs.28,000 a tonne, which is Rs.15,000 a tonne lower than world prices, which are exerting a strong upward pressure on the domestic prices as well. The industry and trade are right in urging the government not to institute a programme of decontrol now, a programme which was planned at a time when there was to be an estimated supply surplus of 16,000 tonnes. Aluminium which is in short supply is selling at a premium of Rs.50,000 a tonne after the 20 per cent price hike in March 1988. The Planning Commission forecast capacity in the industry at 4.67 lakh tonnes and production at 3.93 lakh tonnes and demand at 4 lakh tonnes. Because of the sharp rise in prices, demand has fallen to 3.6 lakh tonnes, capacity to 4 lakh tonnes and production of 2.78 lakh tonnes, involving an import of 80,000 tonnes . When NALCO & HINDALCO expansion are completed, aluminium production capacity will be 8.6 lakh tonnes, production will be 4 lakh tonnes in 1988-89 and 4.7 lakh tonnes in 1988-89 in excess of the demand of 3.9 lakh tonnes. This may be one of the reasons why government on July 26, 1988 put aluminium on OGL for imports and de-canalised imports. Also the international price is £1440 a tonne, which with landed cost and duties makes it Rs.40,000 a tonne, while the indigenous price is Rs.25,309 per tonne. As NALCO is not yet stabilised and BALCO and HINDALCO not being able to use their capacities fully because of power shortage, there is need for continuing imports through

MMTC, the canalising agency, the import cost being redeemed by the appropriate ripe in the administered price of aluminium. On copper, production is at 40,000 tonnes, while demand varies between 70,000 to 1,20,000. So imports are a permanent feature of the copper scene at 50 per cent to 70 per cent of the demand. In this context, the continuous change of copper prices by government (6 times in 12 months) raises questions about the reasons for price hikes. Are they means of raising revenues? Are they to protect the small domestic copper industry? The Comptroller and Auditor General Report for 1986-87[50] on the working of Hindustan Copper has raised further questions about the over estimation of metal content of the ore, the over valuation of stock, the interest for the year etc. Hence the suggestions for consideration are whether uneconomic mines should be closed till international prices rise to make their working profitable, import concentrates to operate smelters, supplementing the open cast technique being used and concentrating on value added, adjusting speedily the tariff in response to international prices. The other non ferrous metal is zinc, where against the annual requirement of 1,60,000 tonnes, the production target for the current year, 1988-89, is 70,000. Last year the production target was not achieved because of the drought, and lack of water and power, that both the Rajasthan and Andhra Pradesh smelters faced. This year the lagged effect of the drought will result in the target not being fulfilled. The world demand for zinc, like the Indian demand, is growing at over 4 per cent per annum, which has pushed up prices from 35 US cents a pound to 60 cents. But this makes the newly established Rampura - Agucha project, designed to produce 70,000 tonnes of zinc and 35,000 tonnes of lead viable. With domestic consumption growing fast at 4.5 per cent, well above the world demand, the 1999-2000 demand will be 2.51 lakh tonnes - which means the country will be a long term importer and will be importing a continuously increasing quantity.

Coir:

The coir industry is engaged in producing retted coconut fibre, called white fibre, from Kerala and brown fibre from other southern and eastern states. The department's annual report gives an extensive account of this traditional industry together with the net work of research, training, and extension services. It does not, however, report on the negative fact that both production and exports of coir products are declining. The decline in exports is from 47,224 tonnes valued at Rs.37.21 crores in 1979-80, to 24,692 tonnes at Rs.32.85 crores in 1985-86, and 22.6 tonnes at Rs.30.98 crores in 1986-87. The main reason for this decline is the obsolescent processing of the industry, particularly in Kerala. The Board has now turned to doing everything to increase production. It is going in for selective mechanisation -- selective both because of the employment effects of mechanisation and the resistance to it from the Kerala sector of the industry. This mechanisation is not only increasing production and helping to meet the competition from the mechanised coir industry in the Philippines, Thailand and Indonesia, it is also a means of meeting the competition from cheap synthetic and natural substitutes. The Husk Control order has been liberalised to increase the availability of coconut husk; the levy scheme of 1986 procures upto 30 per cent of the husk from every retter to feed the coir cooperatives at regulated prices. Cash assistance to the exporters has been increased from 7 to 10 per cent, and the minimum export price, the 3 year project for coir floor matting, and the improved supply and lower shipping costs, are all aimed at increasing production and exports. The annual report states that the 1987-88 production target of 2,00,399 tonnes (1,40,300 tonnes of white fibre and 60,000 tonnes of brown fibre) is being met and exports increased in volume from 13,882 tonnes in April-October 1986 to 14,137 tonnes

August-October 1987, but in value declined by 8 per cent to Rs.1799.29 lakhs. New developments in coir production include the power loom factory at Ammendivilla and two units - one in Maharashtra and the other in Kerala - to produce rubberised coir. The prospects for the industry's growth are improving.

Infrastructure:

Under infrastructure, the mid year position of power, crude, coal and transport will be reviewed.

Power:

In 1987-88, the major source of power was thermal, with nuclear power still at the starting stage, and hydel power in short supply because of the drought. Even so the 1987-88 power record and that for the first quarter of 1988-89 is encouraging. In 1987-88 power generation rose by 7.5 per cent, almost entirely from the thermal source, compared to the previous year's increase of 10.3 per cent. The 1987-88 PLF was 56.4 per cent compared to 53.2 per cent in 1986-87. Power shortage in the country increased from 9.4 per cent in 1986-87 to 10.9 per cent in 1987-88, and hit most major states as the table below shows:

Table XIV

State	1986-87	1987-88
	% of shortage	
Karnataka	26.9	30.6
Uttar Pradesh	14.0	16.6
Kerala	7.6	15.3
Andhra Pradesh	-	11.7
Rajasthan	7.9	16.9
Tamil Nadu	8.6	10.7
Punjab	4.1	6.6
Gujarat	3.4	4.1
Madhya Pradesh	-	3.9
Bihar	26.9	18.6
Orissa	24.0	17.4
Haryana	13.4	13.3
West Bengal	8.7	7.1
Maharashtra	6.5	6.0
All India	9.4	10.9

Source: CSO

The table above shows that power shortage was the highest in the four southern states. Kerala, which till 1985-86 was a power surplus state, joined the power deficit ones, with its shortage more than doubling in 1987-88 over 1986-87. Two states which are normally surplus states joined the ranks of power deficit ones - Andhra Pradesh and Madhya Pradesh; in both cases, due to the sharp reduction in hydel generation consequent on the drought. New capacity created in 1987-88 was 4985 MW compared to the target 4916 MW. For 1988-89, the generation target has been set at 226.5 billion units, power shortage a reduced 8.77 per cent, and new capacity creation 4495 MW. The

record in the first quarter April-June 1988 in meeting these targets is encouraging: power generation was 10.4 per cent more than in the first quarter of 1987-88. On nuclear power generation, against the plan to commission 10,000 MW of nuclear based electricity at a cost of Rs.14,000 crores (1984 prices), 1987-88 expenditure of Rs.468.56 crores was for completed and ongoing schemes - Rajasthan 1 & 2, Madras 1& 2, Navora 1 & 2, and Kakrapara, and Rs.206.43 crores for new schemes - Rajasthan 3 & 4, Kaiga and some work on 500 MW programmes. In addition on 4 heavy water plans and heavy water production at 4 centres, Rs.323.92 crores were expended in 1986-87. The programme faces a resource gap, which the nuclear power corporation formed in 1987 plans to meet through market borrowing.

Turning to power policy there are several issues. On the one hand, the country has one of the highest GDP elasticity of electricity consumption at over 2 per cent, which has led to doubling of power used in irrigation and the resulting increase in irrigation, the increased domestic use of electricity, especially through the Rural Electricity Corporation, and the growth of the industrial sector. These directions in which electricity and its use is expanding calls for a heavy investment in the electricity sector which though increasing at about the fastest rate sectorally, is still behind what is needed, and explains the complaint of lack of resources in every sector of electricity at the states and Union level. A second problem relates to hydel power. For 1987-88 the generation target at 56.4 billion units was about the same as for the previous year, because of the drought and low reservoir levels. Addition to installed hydro capacity was 1234.45 MW. The actual attainments were always 10-20 per cent below the target, compared to the 10 per cent over achievement of the thermal target. Given this poor record of large hydel projects

including those of the National Hydro Power Development Corporation, there is a strong case for concentrating from this year on micro hydel projects - projects on rivers and waterfall system generating 10-50 MW each. China has shown the way to tap this important resource, and it is reported that 30 per cent of its energy emanates from micro hydel systems. Micro hydel programme should be incorporated into the Integrated Rural Energy (IRE) projects which are spreading all over the country. Their execution has now been entrusted to the Rural Electrification Corporation, which is sound. Why they have not been included in the IRE project; given its low capital cost and potential service to the rural areas is not known, and strengthens the suspicion of an anti-hydel lobby at work. In any case the large National Thermal Corporation projects must go along side with other technology options like micro hydel projects. A third problem is that the power shortage documented earlier is due to poor planning and management, not to under investment, (though there is a resource shortage as noted in this field). The mid term appraisal lists some of these man made lacks - maintenance to schedule, reduction in forced outages, reduction in auxiliary consumption and reduction in the time taken between commissioning and full generation. And so to remedy low productivity of capital and ensure better operating staff and maintenance training, and optimal use of equipment, there is need for a data base to monitor the operation. For this year and the following years, there will have to be special attention to ensuring a smooth transition to the use of 500 MW generators, to move faster on import substitution (it is not widely known that the premier power generation manufacture, BHEL's budget is expended upto 60 per cent on imports which means that areas of indigenisation in BHEL should be identified and vigorously pushed). A fourth problem identified by the Comproller and Auditor General in his 1986-87 report is the poor performance of the State

Electricity Boards in regard to a) low levels of operational efficiency, b) short fall in achieving targets, c) cost over runs and spiralling costs, d) poor maintenance e) low PLF, f) growing distribution and transmission losses, and g) the costs of projects exceeding estimates by 100 to 300 per cent, because of 2-5 year delays in the gestation period, changes in designs and additions made after project is approved, and project estimates being guestimates, which are aimed at securing approval for as many projects as possible. SEB, do not undertake the required annual overhaul and so their plants suffer frequent and long outages. There is also lacking financial control, and so most of boards are in financial difficulties. There are further frequent complaints about the unreliability and low quality BHEL equipment. This has not been investigated, and so it is difficult to say whether or not this stems from the preference for foreign equipment. In any case all these shortcomings are now on record, and the modernisation fund should be used by the Boards to modernise their equipment, keep them upto date and provide its maintenance staff with the needed training. Finally the nuclear power raises several issues concerning cost, safety, health, waste disposal and its relation to nuclear weapons. These issues are being debated on a rather low key, compared to the level of debates in US, UK, West Germany and Japan. The department's report presents an optimistic report on all these issues and makes the flat out statement that "personnel radiation during the year were kept under control. Effluent radio active releases and the environment impact from the operation of DAE installations were insignificant".[51] There are scientific studies on nuclear energy costs, on health of workers and wastes management which question those statements.[52] A committee which reviewed radiation surveillance, environmental surveillance and health status of workers at Indian Rare Earths (IRE), Udyogmandal, Kerala concludes that some of the plants' decisions like dumping RE chloride in the sea was

not based on a scientific evaluation and recommends for the safety of workers, adequate medical surveillance and coverage, maintaining a good medical record and individual occupational exposures and comparing IRE workers health with that of workers in a chemical factory not exposed to radiation.[53] There is one other more mundane issue. Now that the Nuclear Power Corporation has been formed, the nuclear power authorities will have to adopt commercial practices of accounting, auditing and adopt transparent cash inflows and outflows, and submit themselves to the normal public and parliamentary scrutiny, like other departments of government, and so answer the question whether nuclear power in terms of cost is a true long term source of power.

Coal:

In 1987-88 coal production was 180.76 million tonnes against the target for the year of 183.5 million tonnes and demand of 192 million tonnes. The difference between production and demand was met by drawing down on pit head stocks and some imports. For the year 1988-89, the target is 196.28 million tonnes and the demand estimated at 202 million tonnes. There are several issues in the coal sector which demand attention. One is price; the price of coal was during 1987-88 raised by 15 per cent from Rs.190 per tonne to Rs.219 per tonne, which gave the industry Rs.140 crores in 1987-88 and Rs.400 crores in a full year. This is a flea bite in relation to the accumulated loss of Coal India at Rs.1900 crores on March 31, 1987 and Rs.2150 crores on March 1988. The Chari Committee attributes the losses to surplus manpower and uneconomic mines. Both these factors are subject to some examination. On the immediate question of the price rise, which is the fourth in 3 years, the question must once more be posed, as is done in the government document on Administered prices,[54] as to whether the alternative to the price rise, namely of increasing productivity, and

reducing corruption, leakages and wastages in the industry has been examined. There is no evidence of that. On the question of over manning, which is also related to OMS, the over manning of the coal mines is an optical illusion, engendered by its real existence in some mines in Bihar. But on analysis, it is found that whereas since 1975 the workforce increased by 35 per cent, production increased by 90 per cent, wages increased six times while the price of coal has increased six and a half times. The same doubt rises in regard to the second reason given for the losses - uneconomic mines which is a tilt in favour of open cast mining. But here again it is found that the mechanised open cast mining, which is 55 per cent of CIL's total mining operations, has not reduced costs (and losses arising from high costs), rather while the share of wages declined, depreciation and interest provisions show increases, and more than Rs.2000 crores of machinery lie idle.[55] Does this mean that management of capital needs more attention than management of labour? A related issue is raised by the collaboration agreement with USSR for design and planning of 5 open cast and 10 underground mines at the Central Mine and Planning Design Institute. While updated foreign technology and related equipment are justified for deep coal mines, the 15 mines do not need Soviet technology and equipment, as there are adequate amounts of both in the country. Open cast mining is the major mining in India at 60 per cent of all mining. A further issue relates to the question of output per man shift (OMS), which is reported to have increased from 0.98 tonnes in 1986-87 to 1.02 tonnes in 1987-88. In general, this increase is welcomed, for it is a simple and short indicator of labour productivity in the coal mine. However the improved OMS is no indicator that the cost of production of the mines is declining, as beyond a certain level of mechanisation which is associated with a rise in OMS, the savings in the wages part of the total cost may not compensate for the costs of the additional

investment needed for the higher OMS. An empirical study on this points out that between 1980-81 and 1985-86, the wages cost part rose from Rs.73.18 to Rs.103.57 per tonne of coal, while the total cost nearly doubled from Rs.123.2 to Rs.214.20 per tonne of coal, because while OMS increases with every substitution of machine for man, the cost of mining does not fall in every such substitution: the cost is made up of a) labour cost, and, b) materials cost, with the result that savings in labour cost may be more than offset by rise in materials cost.[56]

Crude:

In 1987-88 crude production's stagnation has become visible at about 30 million tonnes: it was 30.17 million tonnes in 1985-86, 30.6 million tonnes in 1986-87 and 30.36 million tonnes in 1987-88. The future is equally grim. In 1989-90 an optimistic production forecast is 34.5 million tonnes, while demand is seen to increase from the current 44 million tonnes to 57 million tonnes. In other words, while indigenous production is falling from 68.4 per cent of total crude availability in 1985-86, to 60.5 per cent in 1988-89 and 57 per cent in 1994-95, which is the terminal year for the eighth plan, demand is being allowed to grow at an annual 7.8 per cent. The government's reaction to this situation was to liberalise the contract terms of the foreign multinationals and open the low risk areas - two in the Krishna-Godavari basin, one in Palar and the other in additional of Godavari. What is needed on the other hand is some demand management. Obviously the country cannot afford this rate of consumption growth of petroleum products. In 1987-88 the refinery crude through put was 47.73 million tonnes, and the domestic production of petroleum products was 45.39 million tonnes. Consumption of petroleum products was 46.25 million tonnes against 43.66 million tonnes for the previous year. The consumption

of all petroleum products is increasing: LPG from 1.50 million tonnes in 1986-87 to 1.61 million tonnes in 1987-88, involving increase in connections from 10.3 million in January 1980 to 13.4 million in January 1988: kerosene from 6.65 million tonnes in 1986-87 to 7.20 million tonnes: high speed diesel from 16.00 million tonnes to 17.21 million tonnes: petrol from 2.51 million tonnes to 2.80 million tonnes. With the serious foreign exchange crisis and balance of payment problem, the country cannot afford the above increases, which involve foreign exchange outgo of Rs.3787 crores in 1987-88 and Rs.5000 crores in 1988-89. The raising of the price of petroleum products is a revenue raising gesture and does not reduce petroleum consumption. For that, there is need to review the automobile policy which, as noted earlier, is permitting expansion of all types of automobiles. There is one more means of saving on the use of crude and its products and that is through the optimal use of gas. Now gas is being wasted. In 1986-87 gas production was 9.84 billion cubic metres (bcm), of which 2.72 bcm were wastefully flared. Instead, gas could be piped as domestic fuel in cities and towns, naphtha could be used as feedstock for fertiliser plants, leaving only transport, with priority to mass transport, as the (only) main consumer of crude.

Railway and shipping:

For the railways, 1987-88 has been a good year. Its net tonne kilometre per wagon per day, which is said to be the best productivity indicator of freight operations, recorded a rise from 1296 in 1985-86 to 1430 in 1986-87. Its financial performance is also improving in 1986-87, for after paying the full dividend of Rs.578.85 crores to the general revenue, it records a surplus of Rs.101.99 crores. Since the end of the Seventh Plan, its depreciation reserve increased from 3 per cent to 10 per cent and in 1986-87 it

increases further to 12 per cent, which can help it to catch up a little with the large backlog of replacements and out-dated materials. Again it has raised its R & D in 1988-89 by 50 per cent. It is against this positive record, that its corporate plan 1985-2000 should be seen: with the GDP growth of 4.5 to 5 per cent and the national economic and energy efficiency, its land traffic will increase from 265 million tonnes in 1984-85 to 619 million tonnes in 1999-2000: the overaged assets needing replacement are 5920 steam locomotives, 214 diesel locos, 201 electric locomotives, 21,872 coaches, 1697 EMUs, and 2,14,901 wagons. As in the first 4 years of the Seventh Plan, the railways will have spent Rs.12,000 crores, it may be able to reach the Rs.46,000 crores target in 1999-2000. But there are also problems which must be attended to now. One is the continual rise in the operating ratio from 90.6 in 1985-86 to 91.9 per cent in 1986-87, to 92.6 per cent in 1987-88 and 92.7 per cent in 1988-89. This ratio can be brought down by reducing the administrative and working expense of the railway. Another problem area is the limited transport capacity of the railways, which is lagging behind the economy's need, due to inadequate investment, with priority necessarily going for replacements; this also continues in the corporate plan. Finally, there is the question of internal resource generation. Year after year the railways have raised fares and rates, and for 1988-89 the increase yields Rs.622 crores. This is not the only or primary way to generate resources internally. The rationalisation and modernisation of the railways should also yield resources. In regard to shipping the ministry's annual report states that on 31.12.1983, the Indian fleet was 364 ships of 5.47 million GRT, during 1987-88, 5,12,606 GRT was added and 4,91,988 GRT scrapped, which gives a net addition for the year of 21,108 GRT and the net operative tonnage referred to earlier. Indian shipping had to face the world slump as well as inadequate liner trade and bulk cargo, continuous increase in operating costs,

with little or no effort at economy or improved efficiency. In order to meet this situation, the government in 1987 abolished the Shipping Development Fund Committee and set up in its stead, the Ship Acquisition Licensing Committee to speed the acquisition of ships. And to provide the loans for this purpose, the Shipping Credit and Investment Company was created. It may be too early to judge the effectiveness of these 2 new agencies, but the stagnation and in some case deceleration of our shipping lines and the cargo they carry continue. For this there has to be liner agreements, which is difficult because the companies from the industrial countries want to increase their traffic and cargo at all costs, so that liner conference decisions go in their favour. The obligation to tranship a part of the country's export in its own ships cannot be further extended from the present limits, because of the strong opposition of industry and trade, who naturally want to use the cheapest, safest and quickest rates and liners. Those complex reasons explain the stagnation in shipping. On ports, the major ports functioned without too much congestion, or a waiting period for ships; processing 124,214 million tonnes of cargo in 1986-87 and 1,20,730 million tonnes upto February 1987. The reduction of port congestion will be further marked when the new port of Nhava Shiva is completed and opened. The major ports of Madras, Calcutta and Cochin have developed containers traffic. Both the ports and ships have to come to terms with fast developing technological changes in the world of shipping.

Telecommunications:

In telecommunications, the achievements in the first four years are mainly in the field of local switching, and hence in the last year of the plan and the eighth plan the emphasis is shifting to long distance switching, trans-missions and telex. The section is the subject of a

technology mission to improve the quality of service, and to help develop certain indigenous technology. The mission has been the one success in the five missions, partly because it has clear time bound technology tasks in the telecommunications field. The Planning Commission's mid term appraisal tabulates the achievements in the first year and notes the high success rate. There are some problems. A wide variety of users of the telecom facility has emerged, most of them using foreign equipment. Further the sector has been opened to the private sector. There is therefore need for standardisation of this wide variety of equipment and uses within the framework of a net work of consolidated telematics, which is the next stage of development. The other problem is that telecommunications is still an integral part of a single department - of posts, telegraphs and telephones, which is unable to serve the needs of the postal services, nor those of telecommunications. The case for separating them becomes even clearer as the telecommunication mission begins producing long term and short term results.

Non conventional sources of energy

The departments' Annual Report presents a somewhat overenthusiastic picture of accomplishments of non conventional sources particularly for 1986-87 with the building of 2.01 lakh biogas plants which declined to 1 lakh in 1987-88, taking the number of plants to over 9 lakhs in the country. This is a very small achievement for a large country where over 80 per cent of the people live in rural areas and have no access to modern forms of energy (miscalled forms of commercial energy). China has today over 4 million plants. In 1988-89 the achievement will be even less as the departments' budget is being increased by Rs.5 crores to 105 crores, which, with the inflation rate of over 10 per cent, means a real budget of Rs.94 crores. Within this reduced budget the biogas allotment is an inadequate

Rs.53.43 crores, which, in real terms, is what was available in the last 2 years and which has no relation to the cost of constructing the ambitious 2-3 lakh chulas for the year. The story on improved chulas is similar, with the installation of 9.05 lakh in 1986-87 and 9 lakh again in 1987-88. For 1988-89 the reduced allocation is involving a small target of 5-6 lakhs. The solar thermal programme has moved into the stage of successful commercialisation of low grade solar thermal technologies - meeting medium and high temperature energy needs for airconditioning, solar refrigeration, power generation and industrial process. Low grade solar thermal devices like solar water heaters are in great demand, and solar photo voltaics is emerging as a strong option for meeting small electric power needs. But here again lack of funds is holding up placing the tested, commercialised solar instruments at the disposal of the rural people, because they have no voice in the level of the budget for non conventional energy, and none of the chambers of commerce and manufacturing organisations, including the CEI, which are all urban based and industry oriented, has a stake in the allotment of funds for renewable and non conventional rural energy. This is brought out most clearly in regard to wind energy, which the department report places as being in excess of 20,000 MW for power generation, and refers to a recent study by the World Bank and the US department of energy which ranks India very high among 29 developing countries in the matter of wind energy. The department reports on the capacity of 5 wind farms which generate 4.40 MW[57]. The first phase of the country's wind energy mega park was commissioned in April 1988 at Kayathan, Chidambaram district, with 15 wind mills of 90 KW each. This follows the Mullaikadu unit also in the Chidambaram district, where 20 wind mills of 55 KW capacity each have been installed. In this connection the plan for generating 5000 MW through wind energy has also suffered a reduction in allocation from Rs.6.9 crores in 1987-88 to Rs.5.38 crores in the 1988-89 budget. The project itself

will be kept going through the generous Danish aid, (it is a matter of shame that for this small but important programme we are dependent on foreign aid). The only reason for this neglect of this source of rural energy is the voicelessness of the rural poor against the vociferous claims of the urban elite. One positive element is the report on the completion of investigation for 900 MW tidal power station in the gulf of Kutch, which should be followed by similar tidal power projects in the gulf of Khamba, Sundarbans etc, which add upto 10,000 MW. The problem is whether the conventional electricity forces will allow this non conventional electricity forces will allow this non conventional source to develop, providing it with needed resources. Further two questions need to be addressed to the department. Why is it pressing the review committee to shift solar cells, modules and systems from the restricted list to OGL as part of its campaign to import solar photovoltaic products and technology? The proposal was fortunately not accepted, but only because of the strong opposition of the DGTD and Chief Controller of Imports. A similar case is the department's efforts to expedite approval of manufacture of solar photovoltaic modules and systems based on crystalline silicon technology from the UK's BT solar systems, when the same is produced indigenously by BHEL and CEL, after a decade of R & D and used in our rural areas, in which Mettur Chemicals and IIS, Bangalore were involved, as noted in last year's mid year review.[58] The project was dropped (after being referred to the prime minister) because of the strong opposition of the scientific community. Once more the department needs to remember that it not only a scientific department but also represents the poor rural houses who are its clients.

Science and Technology:

The Annual Report of the Department of Science and Technology provides an overview of the scientific

activities for 1987-88 starting with the Science & Technology (S & T) Advisory Committee to look into the key issues connected with S & T in various economic sectors. In this connection yet another committee called the Science Advisory Committee to the Prime Minister has produced a perspective plan for science and technology, which noting that science and technology is not fully integrated into the economic planning of the country, proposes strategies for incorporating S & T in a perspective plan for 2001, which emphasises that S & T must meet the basic needs of the people for food, housing, health, employment and education as well as the modernisation of infrastructure in energy, transport and communication. It stresses the role of research in materials technology, information technology and calls for action on S & T fronts to attain the targeted goals of deceleration in population growth, doubled food production, larger GDP, health for all, literacy and housing. Six months later it released seven reports on this, its mandate, covering photonics, instrumentation, parallel computing, lasers, management of renewable resources, chemical industry and materials, and stated that reports in three more areas were ready but not printed, namely, minerals development, robotics and manufacture of automation, and priorities in genetic resource (this last related to the annual report for 1987-88 of the department of Biotechnology). The impression that this first crop of reports leaves is that, except for management of renewable resources and peripherally minerals development, the relation to the priorities established in its perspective plan is not clear. The department also reports that in the areas of drought and water management, studies by the Institute of Trophical Meteorology on mechanisms of mean monsoon circulation and variability of monsoons rainfall over time and space indicate that the intense and prolonged prevalence of ENSO and the much cooler than normal winter spring over Eurasia are the two important factors for the unprecedented

failure of monsoons. This and the 93 projects in frontier area of research including plant viruses, coordination chemistry, photo assisted water splitting systems and marine natural products raise some general issues on research as a promoter of technical change. Such research has to pass through four stages - search for new products/processes, adaptation and improvement of products/processes and, development of new products and basic research. In the report, all stages are found, but not necessarily in that order of one stage leading to the next, as the last stage is the major preoccupation of research and its application. Also our research has to take into account the nature of our economy, which is highly protected and monopolistic or oligopolistic, so that adaptation rather than innovation is the *desideratum*. The research reported both in the Department of S & T's annual report and the department of Biotechnology's annual report confirms the above in that the research is aimed at promoting incremental technologies development which are process modification, referred to earlier, which will improve efficiency, increase production, improve product quality or lower cost. Thus, if state of the art technology is imported in any field, domestic research has to absorb it and incorporate in its incremental changes. In the automobile field for instance, in house R&D has grown to compare favourably internationally. It has resulted in a number of invisible improvements. There is a technology gap compared to industrialised countries, but Indian R&D has developed automobiles priced at a lower level. In manufacturing technology, where cost benefit rates favour technology imports, they must be adapted to Indian conditions, which are very special. In institutional terms, it is also pointed out that as we move from import substitution based industrialisation to import liberalised export promotion based industrialisation, internal competition must be promoted for assuring growth with our large labour force. Returning to the more practical issues in S&T, the July meeting of CSIR Directors in

following through the Abid Hussain Committee recommendation[59] on funding one third of the councils budget from its own fund, put forward a 3 point formula, a) allowing some laboratories engaged in pure research like the Centre for Cellular and Molecular biology not being able to earn much, while others could earn more than a third of their budget under which the primary component of the core (non plan) budget and the funding of this for each institute will be proportional to its staff strength and existing infrastructure; b) a second source would be funds generated through grants, sponsored projects etc. to be supplemented by the government providing additional funding in the ratio of 1.5:1 to be gradually reduced to below 1:1 in the fifth year; and c) the money from consultancy services and technology transfer to industry and fees and royalty resulting will be part of this corpus and not be appropriated by the government. In August 1988, a rather important statement was made on agricultural research undertaken by ICAR. On the one hand the Director General of ICAR states that the research by ICAR centres and institutes, which provided detailed technological packages for rice, wheat, ragi, maize, sorghum, bajra and pulses, and have been worked out in light of the resources and constraints of the various agro ecological zones, is being starved of resources; that the research outlay for the Seventh Plan has been moved down from 0.38 per cent of the total plan outlay to 0.23 per cent. On the other hand, the Assistant Director General of ICAR and the Vice Chancellor of the Karnataka University of Agricultural Sciences as well as the experts present a seminar in Bangalore, reached a consensus that ICAR has made little impact on the package of practices propagated by the 26 agricultural universities. This needs examination. Is it that there is a conspicuous lag between research findings and their application to agricultural practices and that extension services including T & V need reinvigoration? Is it possible that the research projects are addressed to the medium and large farms having

access to assured irrigation and representing a higher aspect of capital intensity? Or even more disturbing, are our research projects dealing with agricultural problems wholly unrelated to the country - as in the case of certain crop diseases which are endemic in the US and Europe, who also are fund providers, but are absent here? On the evidence available to me, I would go along with the first hypothesis. Finally the five technology missions launched in 1987 in telecommunication, drinking water, oil seeds, literacy and immunisation are important because, though each presents problems, and only one is a real technology issue, namely telecommunication, in each of them breakthroughs are urgently needed. In August 1988 two additional technological missions have been added, - in dairy development and wasteland development. The latter is one of the top priority areas which has been neglected to date and which will determine the country's development in the medium term. Whether a technology mission is the answer may be debated, but the mission highlights this badly neglected area. The integrated management inputs in all the 5, now 7, mission areas, will determine the breakthrough needed and this calls for the cooperation of scientists and non scientists.

Environment:

The Annual Report (1987-88) of the Ministry of Environment and Forests with its account; of the discrepancy on the country's forest between NRSA & FSI and its apparent reconciliation, which has been dealt with under forests section of this note; of the environmental impact board which aims at "development with minimal environmental degradation" requiring assessment reports, on every project submitted for its clearance, on a) soil and water pollution, b) soil degradation, c) noise impact, d) rehabilitation master plan, and e) impact on flora and fauna; and on this basis states that of 59 mining projects applications, 8 were cleared, 32 rejected and 21 required to provide more

information; of 42 thermal projects submitted, 13 were cleared, 2 rejected, 1 withdrawn, and additional information required from 26; of 35 industrial project applications, 24 were cleared, 3 rejected and 8 required to submit more information; of 87 river valley project applications, 17 were approved and 70 rejected; and yet the projects causing most ecological and environmental concern - namely Sardar Sarwar, Narmada Sagar, Tehridam, Talchar Super thermal, Bombay Nhava Shava port - have slipped through. Reading through the report, it is important to bear in mind that the Department was created only in September 1985. Till about that time, ecology and the environment were of no concern to the economist, including the agricultural economist, the planner, the administrator and the policy maker. The result was that, particularly since independence when five year plans were adopted as means for the rapid agricultural and industrial development of the country developmental activity has proceeded on a resource intensive path, which has had, as a consequence, large scale disruption of the ecological stability of the economy and its support systems. It was not realised that heavy demands on resources - soil, water, air, flora, fauna, minerals, etc. undermined the productive potential of these resources, creating ecological instability. Behind this methodology of rapid development that was successfully adopted, was the concept of the linear progress and the linearity of history borrowed from the 18th and 19th century Europe. Under this concept of linear progress which created the ideology of development, development was equated with economic growth, economic growth equated with the dominance of the market and modernity with consumerism, with the consequence that non market people and non market economics were equated with backwardness. (Witness our desperate attempts to identify backward areas and peoples, the quarrel over whether backwardness should be measured by districts or blocks, by class or caste and the planting of poles of growth among them to help them shed their backwardness). The department, and behind it, the

concern for ecology by innumerable small groups including some illiterate rural communities (who after all gave birth to the Chipko and Apko movements) may be the start of a holistic understanding of man and nature, of man and the biosphere, which hopefully, in time, will lead a holistic relationship between economics and ecology, and will help us to turn economic growth around into what we have now come to call sustainable development. Some of these seemingly abstract principles stand illustrated in the 1987-88 national droubht, which has been a continuing theme of this note. That drought has created a new national problem, which has been referred to, of water scarcity, including scarcity of drinking water. Villages without water have increased alarmingly from 17,000 in 1960 to 35,000 in 1972 and 70,000 in 1985 in UP, from 36,420 in 1980 to 50,000 in 1982 and 64,561 in MP, from 3,844 in 1979 to 12,250 in 1986 in Gujarat, from 17,112 in 1979 to 23,000 in 1984 in Maharashtra and so on for all states. This has brought home the point that drought is manmade, that water scarcity is the result of our interference with the water cycle, and all the various manifestations of drought - meterological, hydrological, land aridisation and ground water scarcity - caused by excessive energised pumping, can and must be corrected by restoring to the biosphere its resources, which we have depleted, and its hydrological cycle and stability which we have disrupted. This can and must be done and must be part of the national, state, district and block plans, with ecological and environmental stability built into all programmes of agricultural development and industrial growth. The 1987 national water policy if pursued seriously, and not allowed to be lost in political infighting and electoral rhetoric, might be a start of the long difficult road to restoration of environmental sanity. This may involve some trade off of growth to preserve the environment, but that small sacrifice by the well to do is the real call of the demand for sustainable development.

Education and Health:

1987-88 marked the continuing and in some cases the full operation of the National Education Policy 1986 (NEP 1986). One of its major aims is to integrate education and training being conducted by separate ministries and departments - formal school, university, and adult education by the ministry of education, medical education by the ministry of health, agricultural education by the ministry of agriculture and technician training by the ministry of labour. In the area of research there is an even greater dispersion, with the department of science and technology and its innumerable national laboratories added to the above. The purpose of this integration has not been spelled out. Is it to help push human resources development in an integrated way? Would it be possible to aim at this, while respecting and supporting the specificity of each type of education, training, and research? The voluminous reports of the Ministry of Human Resources development report on the activities of the departments of education, women and child development, youth affairs and sports, and culture in 5 volumes. They all relate to what was the Ministry of Education in the pre 1985 days - that is before the Ministry of Human Resource Development was created. It would have been useful if the report had given some account of the progress made in regard to a) the integration/coordination of all education services and related research as referred to above, b) the extent to which health and employment activities and information are being incorporated in human resource development. On the other hand there is a separate report on health which makes no reference to human resource development either institutionally or as a subject. Similarly the ministry of labour reports on its activities separately. Looking at the annual report of the ministry of education, the record of general and overall progress of the comprehensive education programme set forth in NEP 1986 is encouraging. From the human resources development (HRD) point of view,

there are a number of questions. First the base for HRD development is universalisation of elementary education (UEE) and attainment of 100 per cent adult literacy. The report refers to the expansion of UEE through operation black board and non formal education and the goals of the technology mission in literacy. At the rate at which these two programmes are proceeding, it seems doubtful if the universalising of the first stage of elementary education, that is the first 5 years, will be attained by 1990. For instance on operation black board, the report states that in 1987-88 funds were released only in 6 states. One important decision made by the ministry on measuring the real enrolment rate in primary/elementary education is not to go by the fictitious enrolment rates, fictitious because 60 per cent of primary school pupils drop out before class V, but to measure it by the numbers who complete 5 years of primary schooling. Under the system of automatic promotion upto class 7/8 which exists in most states, it will be necessary for the schools to be trained to maintain records on the pupils as they complete 5 years. The statement in the report that funds for operation black board were released in 6 states, raises the question of the viability of this top down approach, particularly in regard to primary education. Should there not be a decentralised planning and administration of this programme right down to the block level? The other programme of universal education relates to literacy. Here the technology mission on literacy is a puzzle. Where and what is the technology involved, by what the report calls 'intensive application of S & T inputs'? Given the rate at which adult illiterates are being made literates, the target set for making 40 million adults literate by the end of the Seventh Plan and a further 40 million by the end of the Eighth Plan is not likely to be attained. A second serious gap is in the vocationalisation of secondary education, where the vocational stream at that level continues to be a non starter. At the university and college level, a start has

been made in developing autonomous colleges, though given the resistance of the teachers organisations, the goal of making 500 colleges autonomous in the Seventh Plan also may not be attained. The teacher agitation in 1987-88 was a set back to higher education, and the goal of a uniform scale of emoluments for the teachers is yet to be realised. In 1987-88 the search for means of human resource development is still on, and 1988-89 will see its continuance. In the Health and Family Welfare area, the Annual Report of the ministry refers to the goal of health for all by 2000, which it interprets as a) providing basic health care services to all and b) promoting the health status of the people. It reports translating this goal into 14,409 primary health centres and 1,02,160 subcentres with 5,58,919 trained dais, 3,92,344 village health guides and 84,993 male multipurpose and 1,07,593 female multipurpose workers. The control and eradication of communicable diseases cover leprosy, TB, goitre, diabetes and dental care. The report measures the overall effectiveness of the programmes by comparing life expectancy of 32 years in 1947 against 56 years in 1987. There are, however, several serious gaps in the programme, particularly in relation to intestinal and gastro entities diseases which can be financed and tackled, if hospital based medical care is left in part to be financed by the well to do, who use them chiefly. The priority as between urban based hospital care with its specialities and super specialities and the rural health coverage has not yet been resolved in practice, and the ministry report is not very helpful on this point. On medical education, the medical council bill will perform an important function when and if it raises and strengthens standards of medical education and stops the collection of capitation fees. On family welfare, the report states that couple protection has been going up in the last four years and stands at 37.5 per cent couples who have been protected by March 1987. But the Registrar General's sample of births shows no decrease in the birth rate at an overall 220 per thousand. This means that one of the two reports is wrong - either the ministry's couple protection rate or the sample of births. The report also refers to infants and children

being protected against 6 vaccine preventible diseases through the universal immunisation programme, which has in 1987-88 become a technology mission. With reference to report's statement that mortality and morbidity among infants and children are, as a consequence, being reduced, it should be pointed out that "the child survival revolution" programme seems to lay sole stress on child mortality among the under 5s, paying little attention to health of children after 5, whose mortality/morbidity rate may be rising. The danger with all these target based programme is, as is well known, the all out effort to attain or report attainment of the target, while the substance of the programme, which in this case is the child's future health and living is distorted and neglected.

Housing:

The National Housing Bank proposed by the Prime Minister as finance minister in the 1987-88 budget to mobilise finance for the Housing Development Financial Corporation (HDFC) has a history going back to the Planning Commission and its task force, the statements in the Seventh Plan, and the urban legislation and its various amendments. The bill proposes setting up the apex National Housing Bank to raise the needed funds with Rs.100 crores initial capital provided by the government. There are to be local level and regional HDFCs to provide housing finance to middle and higher income groups. This is a good and necessary development. There are, however, some questions relating to the project being obviously biased towards the well to do, the possibility of turning to the housing needs of the poor, (as also 1987 is the International Year of the Homeless), the distinction between mortgage and other such instruments for financing housing and the purchasing of land, and finally the means of raising the currently low share (2.3 per cent of GDP) of the housing for the poor, and the equally low rate of growth of gross capital stock in housing (1.5 per day). Above all the national budget must show this priority for housing and not leave it purely to market forces.

All the activities outlined and analysed so far depend on the volume of saving and investment available to the economy to which attention may now be turned.

Savings and Investments

As CSO in its New Series of National Accounts Statistics with 1980-81 as the base year has revised the savings and investment estimate from 1980-81, a first task is set forth the old series and new series side by side. Unfortunately this series is worked out only for 1980-81 and onwards and so it is not possible to go back to 1970-71 in the presentation of savings and investment, as was done in the 14 mid year reviews of the economy in the past. This inability to present a continuous series and workout a trend from 1970-71 is one of the consequences of the revision and was referred in general terms in the prolegomena earlier. The domestic savings and investment in the new series and the NDP growth and industrial growth also at 1980-81 prices is presented in the table below:

Table XV

Year	Gross Domestic Capital Formation		Net Domestic Capital Formation		Gross Domestic Capital Formation		Net Domestic Capital Formation		Inflow of foreign resources as % of NDP	NDP growth (at 1980-81 prices)	Industrial growth
	Old Series	New Series	Old Series	New Series	Old Series	New Series	Old series	New Series			
1980-81	23	21.2	17.8	13.5	24.7	22.7	19.6	15.2		NA	NA
1981-82	22.7	21.1	17.2	13.3	24.4	22.8	19.1	15.1		"	"
1982-83	22.6	19.5	16.9	11.1	24.2	21.0	18.8	12.7		"	"
1983-84	21.2	19.8	16.4	11.8	23.5	21.0	17.8	12.9		"	"
1984-85	22.9	19.5	16.9	10.9	24.4	21.0	18.6	12.8		"	"
1985-86	22.1	NA	18.6	13.1	24.6	NA	NA	15.5	2.4	4.8	8.7
1986-87	21.8	NA	NA	12.7	22.8	NA	14.8	15.3	2.5	4.0	9.1
1987-88	21.0	NA	NA	11.8	20.0	NA	NA	14.0	2.2	2.5	7.7

Source: CSO and Annual Report 1987-88 RBI

Several comments can be made on the data in the above table. In view of the upward revision of the estimate of national income and depreciation, the rate of savings and capital formation is low. The old series for 1985-86 records 22.8 per cent for gross savings and 24.68 per cent for gross capital formation; in the revised new series they become 13.1 per cent as net savings and 15.5 per cent as net capital formation. Further CSO states that capital consumption was underestimated by 3 per cent, so that net savings is 11.1 per cent and not 16.9 per cent and net domestic capital formation is 12.7 per cent and not 18.8 per cent. The report of the working group on savings (the Raj Committee) had predicted this revision of the investment and savings when it stated that "if they (capital consumption and capital destruction) are all counted in, and if they add up to between 5.5 and 6 per cent of GDP, the net rate of fixed capital formation would only be around 12 to 12½ per cent of the national income (at 1970-71 price) and "the sharper increase observed in recent years (in the rate of savings) could have been due to transient factors".[60] Further under the new series, net savings have ranged between 11 and 13 per cent and net domestic capital formation has been between 12 and 15 per cent, rates which are much lower than those of South Korea, Brazil and many developing countries, and also disposes off the puzzle that previous mid year reviews were grappling with - as to how a high rate of savings and investment could go along with a sluggish overall economic growth rate and low industrial rate of growth. The revised series faces us with the opposite dilemma, of low net rate of savings and capital formation going with high industrial growth rates and also good overall economic growth rates, except for the drought year 1987-88. With net savings, for example down to 12.7 per cent of NDP in 1986-87, and ICOR rising well above 5, how were the 4 per cent overall growth and 9 per cent industrial growth rate attained? This question is posed also for the previous year. Perhaps the clue is to be found

in the large negative trade balance due to the surge in imports in both years, leading to enlarged production - overall and industrial - but not so in value added terms. The rates of economic and industrial growth are production growth rates, not value added rates. Further does the larger deficit in the trade and current account balances for that year and the previous and following years mean that like the US we are living off the savings of other countries?

The break down of the net domestic savings between its three originators, households, public sector and the private corporate sector for the 3 years 1985-86, 1986-87 and 1987-88 is presented in the table below:

Table XVI:

(at current market prices)

Sector	Year 1985-86	1986-87	1987-88
1. Household sector's savings as % of NDP	14.1	14.5	13.7
2. Net Public Sector's savings as % of NDP	- 1.4	-2.1	-2.1
3. Net domestic private corporate sector's savings as % of NDP	0.4	0.3	0.2
4. Total net domestic savings as % of NDP	13.1	12.7	11.8

Source: Annual Report 1987-88 RBI.

The table shows that the total net savings which had fallen from 13.1 per cent of NDP at current market prices in 1985-86 to 12.7 per cent in 1986-87, will fall further to 11.8 per cent in 1988. This is due to the decline in savings of all 3 components - the household sector from 14.5 per cent of NDP to 13.7 per cent, the public sector whose dissaving increased from -1.4 per cent in 1985-86 to -2.1 per cent for 1986-87 and 1987-88, and the private corporate sector's saving falling from 0.3 per cent of NDP in 1986-87 to 0.2 per cent of NDP in 1987-88. However it is only the household

sector which is a surplus sector, in the sense that it saves more than it invests and its surplus is available to finance the deficits of the government and the corporate sector, because they invest more than their savings. It should be noted that domestic savings include NRI deposits and direct investments which were Rs.156 crores in 1985, Rs.98 crores in 1986 and Rs.43 crores upto September 1987. NRI portfolio investment at the end March 1985 was a small Rs.46.87 crores, at March 1986 Rs.53.54 crores, and at March 1987 Rs.56.5 crores. But NRI and FCNR deposits which are loans at high interest rates, and are a form of hot money, were a high Rs.3,818.75 crores in March 1985, Rs.5,649.64 crores in March 1986, and Rs.7,487.30 crores at March end 1985. The reasons for the poor (negative) savings performance of the public sector and the private corporate sector were earlier discussed under the manufacturing sector. The rising trend of the incremental capital output ratio at 1970-/1 prices from 3.06 in the First Plan to 3.73 in the Second Plan, 5.36 in the Third Plan, 5.42 in the Fourth Plan declining a little to 4.83 in the Fifth Plan, but rising again to near 6 ~~per cent~~ in the Sixth and mid way of the Seventh Plan must also be taken into consideration, in analysing the net savings contribution to NDP of the two sectors.

A further break down of the form of the private sector net savings throws some light on the NDP movements, prices (WPI), stock market share prices etc. The table below sets forth the forms of the private sector's net savings over the three years 1985-86 to 1987-88.

Table XVII

(percentage of NDP)

Asset	1985-86	1986-87	1987-88
Physical assets	5.9	5.5	5.5
Financial assets	8.2	9.0	8.2
in the form of			
currency	1	1.2	1.7
bank deposits	4.7	4.75	4
LIC, Provident & Pension Fund	2.8	2.8	2.9
shares & debentures	0.8	0.8	0.8
small savings	1.1	1.2	1.1
Financial liabilities	2.6	2.6	2.7

Source: Annual Report Reserve Bank 1986-87 & 1987-88.

The table shows that the private sector's saving in physical assets which declined from 5.9 per cent of NDP in 1985-86 to 5.5 per cent in 1986-87 is now stabilised at that level. Its savings in financial assets show a decline in 1987-88 due mainly to the fall in its share of bank deposits because of the general deceleration in the rate of growth of bank deposits in that year, and as a result the share of currency and bank deposits in financial assets declined from 53.4 per cent in 1986-87 to 51.5 per cent in 1987-88. Other savings made a small increase or slow stabilisation in 1987-88, except small savings which registers a decline. Thus the major decline in the household sector's savings was in financial assets, mainly deposits, which was a reflection of the increased expenditure that the households had to incur in the drought year.

In household sector savings, the performance of the rural households has been the subject of a useful study.[61] The study reports that the proportion of financial assets - shares, debentures, insurance, deposits etc. - in rural savings was the same in the 1971-72 All India Debt and Investment Survey of RBI as in the survey in 1981-82, at

1.1 per cent of total assets in 1971 and 1.2 per cent in 1981, though the proportion of savings in shares declined from 0.2 per cent in 1971 June to 0.1 per cent in 1981 June. Unlike the urban household sector which in 1981-82 kept 10.6 per cent of its savings in the form of shares and other financial assets, the rural households share was a meagre 1.2 per cent. It reports that the rate of mobilisation of deposits in the rural households by institutional agencies was poor, with of course huge unaccounted funds of the unorganised sector and in the rural areas untouched by the financial agencies. This is evidenced by the operation of the large number of small non banking finance companies and chit funds which will be analysed in the next section. On the basis of 5 case studies of successful rural banking operations, it is concluded that: a) successful deposit mobilisation was a result not only of the general economic growth in the villages, good infrastructural facilities, productive land and irrigation facilities, but more importantly because of the catalytic role of bank management who stood ready to help financially in strengthening the rural infrastructure and accelerate production and growth in the villages and mobilise their savings: b) despite impressive growth in bank deposits in the villages studied, there were a large segment of the village population untouched by the banks: c) some villagers are not attracted by bank deposits because of their illiteracy and aversion to the kind of publicity of banks and their procedures: d) the better performance of some branches is not due to price differentials but product differential - the quality of customer service, the timeliness and adequacy of loans: e) the development of rural deposit business is partly dependent on internal factors to the bank, like proper house keeping, but also on the command area and its exploitation by the branch bank; and f) in commercial banks an advantage over RRBs and cooperatives due to their organised methods and practices, high degree of liquidity, and the abundance of expertise in terms of human resources, which, however they are not fully deploying.

The Reserve Bank calls attention to the rapid increase in the deposits of non banking companies deposits from Rs.135 crores in 1981 to Rs.2,267 crores in 1986. It also reports that in the non banking corporate sector there are 1,58,99,700 accounts with Rs.18,072 crores deposits.[62] Even more decisive in this area of household savings, is the result of a study by the Indian Bank Association's working group on the impact of the unincorporated private financial bodies (UPFBs) on the deposit mobilisation of commercial banks. The main findings are: a) Kerala had the largest UPFBs, with 12,000 being 80 per cent of the countrys' total; b) they offer interest at 18 to 40 per cent on deposits; c) they pay interest above the stipulated rates, in cash which generates 'black money'; d) they attract depositors by making special offers of gifts for festival seasons; e) they canvass business on a door to door basis, make a large amount of loans to big businessmen, offer loans against jewellery without a ceiling, make very liberal loans for acquiring land, vehicles etc., and loans are usually for twice the deposits made by a client; f) the clients are from the low middle income group, retired pensioners, traders, housewives, job seekers and the newly married; g) they follow unethical practices such as not following the income tax directives i) to make payments by cheque for all sums above Rs.10,000 or ii) to report the names of depositors who receive interest above Rs.10,000, and mislead the public by using terms like banks, finance houses etc. There are three problems posed by these unincorporated bodies: first they are a fertile field for development and growth of unaccounted ('black') money; second they continue to siphon off large sums of domestic savings, of which there is no statistical record; and, third with their unethical practices and having no stake in the business, the rate of failures and various forms of deception is very high. The way to counter this menace to the system of savings is legislation on the Kerala lines, the Kerala money lenders (amendment) ordinance 1987, but even more by banks

learning from this group and reviewing their own procedures, so that genuine needs are met quickly and fully, which involves granting loans against jewellery, making monthly instead of quarterly interest payments, and continuously reviewing the position of these bodies at their monthly meetings, to see what further adjustments need to be made to control this growing problem in the savings area. The Indian Banks Association has done a signal service through this study; information on this malignant growth needs to be regulalrly and fully published by it, particularly the amount of deposits (im) mobilised by the UPFBs, and above all for the Reserve Bank of India and the government to move quickly on the recommendations made to them about the needed legislation. It is regretted that this study throws in doubt, the data on savings (and investments to lesser extent) that the CSO and RBI publish, on which this section is based.

Foreign Trade and Balance of Payments:

The country's foreign trade and balance of payments situation which has been negative and under strain from 1980-81, worsened sharply since 1985-86 and is in a bad way for both 1987-88 and the current year 1988-89 as table shows:

Table XVIII

(Rs.Crores)

Item	1981-82	1984-85	1985-86	1986-87	1987-88	1988-89
1.Exports	7,766	11,959	11,578	13,315	16,000	18,500
2.Imports	13,887	18,680	21,164	22,669	25,200	28,000
3.Trade balance	-6121	-6,721	-9,586	-9,354	-9,200	-9,500
4.Investments composed of	3,804	3,869	3,659	3,841	3,700	3,500
Private transfers	2,221	3,101	2,821	3,038	3,000	3,000
Tourism	920	469	778	1,248	1,300	1,300
Investment Income	339	-996	-952	-1,250	- 1,350	- 1,400
Transpor- tation	-85	-274	-212	-60	-100	-100
Others	409	1,549	1,224	873	850	700
5.Balance of payments	-2,317	-2,852	-5,927	-5,613	-5,500	-6,000

Source: Economic Survey 1987-88 & CMIE.

Some technical comments on the above tables are needed. It is a matter of regret that the Economic Survey (Ministry of Finance) figures used above, and the data in table 1.7 of the Planning Commission's Mid Term Appraisal, and those by RBI should vary somewhat widely. The variations are due to the use of different methodologies, in the case of RBI because of the treatment of PL-480 assistance and in the case of Mid Term Appraisal because of the use of 1984-85 exchange rates, and in the case of the Economic Survey because of the use of current exchange rates. The resulting differences in the presentation of 3 sets of data is unnecessary and confusing. In this note the Economic Survey data is being followed.

The table shows that in 1985-86, export earnings declined by 7.1 per cent, in 1986-87 rose by 14 per cent, and in 1987-88 rose by 22 per cent. The trade deficit worsened suddenly in 1985-86, increasing by near 50 per cent compared to the previous year and remaining at that high level for the subsequent 3 years. The balance of payments deficit similarly more than doubled in 1985-86, and has remained at that high level due to the course of the trade deficit referred to earlier, and the large outgo on investment income, which includes interest payments on foreign loans. The export income growth in the above table is expressed in Rupees, but when expressed in foreign currency shows a lower growth. Thus for instance, between 1978-79 and 1986-87 export income in rupee term rose by 10.3 per cent per annum, in terms of dollars the rise was an annual 4.4 per cent, and in SDR terms an annual 5 per cent. The worsening of the balance of payments situation from the start of the seventh plan, 1985-86, shown in the table is due to a complex of factors - fall in crude production; rise in its international price; the growth of protectionist trends abroad - OECD reports that 40 per cent of import

into its member countries are subject to non-tariff barriers; the repayment of the $4 billion odd IMF loan; the unfavourable climate for aid-relieved somewhat in the last 2 years; the 1987-88 national drought; the decline in the saving rate of the country; the failure of the public sector to generate its targeted share of resources; the increase in the reliance of foreign resources including international commercial borrowing, which is between Rs.1,500 to Rs.2,000 crores per annum, and whose real burden increases with the depreciation of the Rupees -- the rupees exchange value between 1950-70 was revised twice, but in 1985-86 it was revised 149 times and in 1986-87 141 times, being devalued 38 per cent against the dollar, 26 per cent against the Deutch mark, 54 per cent against the yen and 11 per cent against the pound sterling between 1981-86. There should have been a policy of importing from countries against whose currencies, the Rupee is depreciating less, and exporting to countries against whose currencies the rupee is depreciating more. But just the opposite has happened because of the lack of policy. Japan's share of India's exports rose during this period from 9 to 10.8 per cent, West Germany to 6 per cent and UK to 6 per cent. Further imports during this period from West Germany rose from 5.5 per cent to 10 per cent, Japan from 6 to 12 per cent and UK from 6 to 8 per cent. Only US's share fell from 12 per cent to 10 per cent.

It is against this general background that the 3 years Export-Import policy and the export thrust of the 1988-89 budget might be analysed. The 1988-89 Export-Import Policy a) widens the list of raw materials, components, spares, consumables, and capital goods that can be imported under the 741 items OGL; b) of the above, 329 items of raw materials, components and 99 capital goods are included to service the electronics, tea and silk industry; c) enlarges the link of the inflow of

imports to exports under the import replenishment scheme, and the import of capital goods permitted, even those which are produced in the country and which is reemphasised in the current budget. The budget carries out, it may be recalled, the policy by a) giving a 5 year tax holiday to 100 per cent export oriented firms, b) exempts 100 per cent profits from exports from payment of income tax, c) gives manufactures who export benefits under 80 HHC of the income tax, d) levies lower duties for import of capital goods, raw materials and components. Under these provisions, exporters will benefit only if they earn more and they will earn more only if they export more and to export more they will have to reduce their costs. Can they? Looking at the export import policy, the effects of which cannot be judged now, less than a few months after its announcement, it can be noted, however, that though the policy is meant to increase exports and is meant for exporters, it seems to result in larger imports, and uses exports as an eligibility criterion for that purpose. The export policy will thus result in a sizeable increase in imports. The policy thrust is on export of non traditional and value added items, which will result in the kind of import intensive exports, where a higher export encouragement means higher imports. Will this happen? It is to be hoped that it will, because exports need expansion. But past experience does not support this hope. Non oil imports increased by 25 per cent in 1985-86, 18.7 per cent in 1986-87 and 24.5 per cent in 1987-88. Within this broad import area, during

1980-81 to 1986-87 imports of raw materials and intermediates increased at an annual average of 7.5 per cent and capital goods by 19.2 per cent. The table below compiled from data from the Economy Survey shows the growth rates of some important items during the 6 year period.

Table XIX

Item	Average Annual growth rate %
1. Fibres (synthetic and natural)	9.4
2. Chemicals & components	24.7
3. Plastic material	23.8
4. Pulp and waste paper	68.0
5. Pearls and precious stones	23.7
6. Non electrical machinery	22.7
7. Electrical machinery	28.9

Source: Economic Survey 1987-88.

What were the effects of these imports ? The exports of manufactured goods increased at an annual average of 11.3 per cent, due mainly to exports of ready made garments, leather and leather manufacturers, handicrafts, gems and jewellery, which together comprised 82 per cent of the exports of all manufactures, and had little to do with the imports surge set forth in the above table. This suggests that the liberal import policy which the 3 year policy continues and expands will not lead to a significant increase in exports. There is an increase in exports as table XIX shows but that increase is due to traditionals like tea, coffee, gems and jewellery, to better prices on these items, to bilateral agreements: on non traditionals like engineering it will be noticed that their increased exports are based on double that amount (in value terms) of machinery and components being imported for use by them. Another even more serious effect of the export - import policy is that its liberal import of capital goods even in the case of goods produced within the country, will, given the small market for capital goods, lead to a marketed fall in investment in Indian capital goods industry and a decline in its growth as we move away from the import substitution so carefully developed over the Plan years. Further the policy will simply expand import intensive exports and export production, because most of our exports are non competitive, to counter which imports are liberalised. There is also the effect of the domestic market for consumables being met by the Indian manufacturers following the assembly kit culture as in computers and electronics. There is no escape from the conclusion that the 3 year policy and the 1988-89 budget have already led to such accelerated growth in imports and outgo of foreign exchange, that the government has had to come out this month, September 1988, with a statement that imports will be pruned in the non

essential field. This is the first public admission of there having been non essential imports.

Is India's non competitiveness in exports due to their prices being higher in India ? At the macro level, the evidence is that India has a low inflational rate. Against the average annual rate of global inflation of 11.3 per cent to 76.5 per cent in the low income, middle income and high income countries during the period 1965-80 and 19.1 per cent to 91.6 per cent of high income countries during 1980-86, (the industrial countries recording a low 7.6 and 5.3 per cent) India's inflation rate was 7.6 per cent and 7.8 per cent during the 2 periods.[63]

At the disaggregated level the evidence is that the prices of India's exports are declining in the 70s and 80s as the table below shows:

TABLE XX

US $

Item	1960 Foreign price	1960 Domestic price	1960 % Difference	1970 Foreign price	1970 Domestic price	1970 % Difference	1980 Foreign price	1980 Domestic price	1980 % Difference
Sugar	80.83	210.39	- 160.2	523.94	472.30	9.8	302.89	466.89	- 54.14
Cotton textiles	1845.61	2309.42	- 25.1	3908.66	3791.18	3.0	7215.00	3786.93	47.51
Manmade fibre	1472.18	2225.94	- 52	3409.14	2431.96	28.6	4571.66	3106.92	32.05
Other chemicals	705.77	561.37	20.4	2391.32	1506.20	37	2219.86	2012.78	9.33
Refractors	87.56	32.79	62.5	285.49	56.94	80.2	363.67	97.69	73.14
Non metal product	1.00	0.86	13.1	4.30	3.01	31.1	5.73	2.83	50.72
Metal containers	6.74	5.02	25.4	11.54	9.29	19.4	25.45	14.30	43.80
Bolts & nuts	854.70	536.02	37.2	1423.70	991.38	30.3	4848.66	1621.81	66.62
Cosmetic drugs	664.04	1299.03	- 95.6	2284.53	1965.49	13.9	7238.99	1821.35	74.84
Cement	15.73	24.19	- 53.7	39.14	51.0	- 30.6	58.93	54.93	10.80

Source: Nambiar 1985 & 1988

The lessons drawn from the data in the above table is that India's non competitiveness in exports must be sought in non price factors such as : a) poor delivery systems, distribution net works, credit terms and pre and post sales service and quality; b) adjustment to change is slow and gradual because of lack of knowledge, uncertinty over new suppliers, reluctance to give up satisfactory customer relations; c) commitment to a given type of equipment, even though it is not up to date and because of the problems of spare parts; and d) world economic demand affected by deep and long recession, debt crisis crisis in the east block and less developed countries, the fall in oil prices, the volatility of exchange rates and the growth of protectionism. The poor export performance of our major non traditionals, engineering goods in particular, is due to a) the demand pull of the home market, b) inadequate production base which is not able to meet bulk demands, c) poor packaging, d) varying and inconsistent quality, e) non availability of raw materials at the right time, and f) obsolescent technology. These apply also to someother non traditional exports.

The engineering industry in India also illustrates that, on the one hand, India is paying a heavy price for the indiscriminate import of technology, while on the other hand, objectives of import liberalisation are unrealised. The top 100 engineering firms in 1983-84 earned 542.55 crores in foreign exchange as against the outflow of Rs.2049.88 crores. Thus the net exchange outflow during the year from the top 100 engineering companies over Rs.1507.29 crores. Further technology imports seem to be the costliest imports, as the recent collaboration agreements with EEC countries (with whom the agreements are 50 per cent of all foreign collaboration agreements) show. A recent study of the commerce ministry reports that despite the agreement the countries are not keen to set up units in Free Trade Zones or as export oriented schemes. They are interested primarily in

India's large market and not in complementarity of economies or skills, or importing the product into their own countries. The question should be asked as to why the surge in foreign collaboration agreements have not increased the country's competitiveness in exports. Another study points out that the technological progress of Indian engineering companies has been very little because of their technology imports. It points out that some of the most successful firms showed technological dynamism after their technological import programmes and agreements had expired, and some after their technology suppliers failed to help them and some even without any imports of technology. The analysis shows that 60 per cent of collaboration agreements do not involve flow of information which is a vital part of technology development. In the engineering field attention needs to be paid to 11 thrust areas identified by CEI - electronics, diesel engines, small cutting tools, boilers, machine tools, storage batteries, software and complete vehicles. This may help to leave behind the stagnation record and attain the 1988-89 target of Rs.2000 crores.

Counter trade as part of the foreign trade is developing slowly and should be pushed. Counter trade is a form of barter, is based on counter trade deals has been given now the status of deemed exports, so that Indian exporters can begin to export without waiting for the actualising of countervailing imports. It is an area now opened upto the private sector trading houses, and should result in the deemed export expansion that it aims at. The major counter deals under way are; a) Asian vehicles industries and Volga automobiles of USSR, b) MMTC's deal with a Japanese company for setting up an artificial shrimp culture complex with a buy back ratio of 100 per cent, c) the import of long and extra long staple

cotton and iron into turnkey and its exports to India of textiles, engineering goods and transport equipment, d) the Vayudoot deal with a counter purchase ratio of 100 per cent, e) MMTC and Zonica, Yugoslavia on ores, f) the deal between Maruti and car instruments with Hungary, g) the buy back arrangements on NTC looms with USSR, NAALCC and USSR, h) the deal with Zimbabwe on asbestos and with Togo and Senegal on Mopeds in exchange for rock phosphates. There are problems in counter trade transactions. As most of them are not based on economic considerations, there is deal of looseness leakage and non fulfilment involved. Unlike positive counter trade transactions the obtaining of assued supplies is not always associated with the counter purchase of barter consideration. Further India's counter purchase transactions have not been particularly successful on the price front. The terms of trade in some counter deals are inferior to those obtained under conventional trade channels. One of the considerations in favour of counter deals is that it may open up new markets for Indian products. But this has not happened. The fundamental problem is to identify goods available for counter deal exports and needed on counter deal imports. There is also the question of India's bargaining power which depends on government policy and the decision on export and imports of particular goods. Thus while counter trade open up new vistas in foreign trade, its practical application to date raises many problems, which makes a need for an overall review of this instrument of foreign trade necessary.

Overall, both short term and long term prospects in the trade field are sombre. In the short run, the government report to the monsoon session of parliament that the balance of trade for the first 2 months of the financial year, April and May 1988 recorded a deficit of Rs.1335 crores. For the first quarter April-June 1988 the finance minister reports

a further widening of the trade deficit to Rs.2074.24 crores. He has rightly pointed out that imports have to be regulated and that the policy of liberalisation of industrial licensing cannot be continued, if it resulted in a large outgo of foreign exchange, as happened in the case of automobiles and other industries. These words now must be translated into action. What are the imports that can be reduced; they are machinery and components, crude and petroleum products, fertilisers, plastic products, non ferrous metals and edible oils. To cut back on each of these items will involve some hard decisions which must be made. Another short term issue as reported in July 1988 is the record drop in the country's foreign exchange reserves of Rs.1905 crores in the first quarter of 1988-89, making the reserves Rs.5382 crores as on July 1988. At this level, the reserves constituted only 57.5 per cent of the year's trade deficit. Given the depreciation of the Rupee, the reserves in terms of US dollars declined by $1817 million (32.7 per cent), in yen by 192.7 billion (27.4 per cent) and SDRs by 28.8 per cent. The disturbing fact is that until the government releases the information, the reasons for this fast drop in reserves cannot be explained. To minimise the real cost of borrowing and obviate risks from exchange rate fluctuations, (the continuous depreciation of the Rupee against the major foreign currencies which were referred to earlier), the financial institutions have formulated an Exchange Risk Administration scheme, wherein foreign loans contracted by any firm are converted into counter part rupees at the rates prevailing on the date of the loan agreements, and the borrowers will effect repayments against interest charges and instalment of principal in Indian currency, the exchange risk being borne by the financial institution. The long term problem is India's falling share in world trade, with exports growing at a trend rate of 3 per cent and imports

at 3.6 per cent over 3 decades.[64] The Aid India Consortium has pledged $6.3 billion for 1988-89 compared to the previous year's $5.4 billion. But in the background of the inter-related factors reviewed briefly of the balance of payments crisis, increased commercial borrowing, inflow of NRI deposits in response to high interest rates, the debt service ratio rising to 25 per cent of export income, and the consortium loans though with lower interest rate and longer grace period, because of their tied nature involving a real volume of about $5 billion in 1987-88, there is not much leeway for the economy in its external economic relations area.

Employment and Labour Relations

It is somewhat shocking that for the year 1987-88, which was a year of national drought, there is no official estimates of its employment effects, even tentatively. The year deprived millions of agricultural wage employment, because over most of the rainfed farm areas constituting 70 per cent of the gross cropped area, there was little or no crops grown and labour employed: the drought also caused underemployment for several more millions among small and marginal farm households. Even in non drought years, like in 1977-78 and 1983-84, the 32nd and the 38th round of NSS show that underemployment at 20 per cent (19.07 per cent to 21.04 per cent) of the rural labour force is more serious than full unemployment which is established for those years at 3.5 per cent (3.74 per cent to 3.97 per cent) of the rural workforce.[65] Therefore the report on employment generation in the ministry ofLabour's Annual report for 1987-88 is unsatisfactory. It dismisses the questions of the impact of the drought year on employment, unemployment and underemployment with some reference to the Seventh Plan document's estimate of usual status unemployment; estimate

of the back log of unemployment at the start of the Seventh Plan; and the addition to the labour force during the Plan and along with the provisional estimates of employment in the organised sector which are more than a year old (for 1986-87); the overall lacenic comment is that the overall generation of employment for the year is so far not available.[66] This should be regarded as a highly irresponsible statement in so far as it concerns the lives and living of over 200 million men, women and children.

Given this unsatisfactory official background, I would like to begin this section with quoting in extenso, the only (partial) estimate available so far on the volume of unemployment created by the drought.[67]

> "Although policies for reducing the instability in production have favourable pay-offs, their impact is felt essentially in the long run. This is because the area subjected to drought in India is very large (nearly two thirds of the cultivated area). Therefore, in the medium-run public employment programmes must form a part of overall drought relief strategy. The important questions that deserve analysis are the scale of works programmes, and their cost effectiveness. The responsiveness of employment to variations in output (employment elasticity with respect to output) differs across the regions and as between different crops, depending upon the degree of labour saving technology adopted. In general this responsiveness may be expected to be lower in the green revolution states/regions such as Punjab and Haryana, as compared to other regions. For all crops and for the country as a whole employment elasticity for the recent period is

estimated to be 0.59. We assume an employment elasticity with respect to output of 0.6.

During the current year (1987-88), it is expected that the shortfall in foodgrains output may be of the order of 13.5 per cent of the previous year's output. The loss in employment/income in a drought year such as the current one would then be about 8% of the previous year's. This of course, is an average for the country as a whole. In some regions such as Gujarat or Rajasthan where the output loss is expected to be nearly 50%, employment/income loss could be substantial (nearly 30%). Thus, how much employment should expand depends on the intensity of drought which differs from region to region. According to the estimates derived by A.De Janvry and K.Subbarao for the year 1978, nearly 80% of gross value added by labour was contributed by the landless, sub-marginal and marginal holdings. Since 1978 there has been some transfer of land from the large holdings to small and marginal holdings, partly via market forces, and partly via effective land reform legislation in some states. Bearing this in mind, we assume that atleast two-thirds of the loss in employment in a drought year would be shared by the households below the poverty line, i.e. the landless, and marginal and sub-marginal holdings. Thus, if public works programmes are to serve as a drought relief measure, they need to provide additional employment support to the tune of 1406 million mandays to the households below the poverty line."

It will be noted that the above estimate is not an estimate of underemployment and unemployment of the total workforce - what is called the usual status of employment of workers who number about 320 million, but only of those who live below the poverty line. Even so it gives some idea of the dimensions of the impact of the drought on employment, underemployment and unemployment of a significant part of the rural workforce.

If the ratios of underemployment and unemployment indicated by the 38th round of NSS is applied to the rural labour force of 240 million, then even in a non drought year some 64 million of small and marginal farmers and landless labourers (usual status) are underemployed, and 9 million fully unemployed. For the drought year 1987-88 these figures must be atleast doubled - which means far from any generation of employment, some 18 million workers were unemployed and some 128 million underemployed.

Against this kind of background, the data in the ministry's annual report is not helpful. It begins by repeating the Seventh Plan figures which were also stated in its report last year. Of a backlog of unemployed of 9.2 millions at the start of the Seventh Plan to which the new entrants to the labour force of 39.38 million is added, giving a total of 48.58 million persons nearing employment. Against this, it expects that employment generation during the Plan will be 40.36 million and concludes somewhat euphorically that the back log at the end of the Seventh

Plan of 8.22 million unemployed will be lower than that at the start. The report also states that employment in the organised sector in 1986-87 increased by 18 per cent in the public sector at 180.02 lakhs on March 31, 1987, and by 0.04 per cent in the private sector at 73.79 lakh on that day, making total employment in the organised sector 253.62 lakhs on March 31, 1987. which was a 1.3 per cent growth in employment. The one piece of information which is new is that the employment of women in the organised sector which is a low 1/8 of that of men, increased, however, faster at 2.2 per cent (3.3 per cent in the public sector and 0.5 per cent in the private sector), totalling 33.37 lakh women at 31 March 1987. There is one indication of the impact of the drought on employment in the employment exchange figures of those looking for employment, which shot up from 26.269 million in 1985 to 30.131 million in 1986 and 30.019 million in January 1988. Also vacancies notified to our exchange declined by - 5.8 per cent between January 1987 and January 1988.[68]

The mid term appraisal calls attention to three changes that are taking place in the structure of the rural workforce between 1971 and 1982/83. One relates that the proportion of the landless has increased from 9.6 per cent of workforce in 1971 to 11.3 per cent in 1982. This ratio must have risen much higher in the drought year 1987-88. The second is the decline in percentage of self employed workers and a sharp and continuing rise in casual workers which the table below brings out.

Table XXI

(% to all workers)

Category	Male			Female		
	1972-73	77-78	1983	1972-73	1977-78	1983
Self-employed	65.90	62.77	60.40	64.48	62.10	62.21
Wage employed	12.06	10.57	10.77	4.08	2.84	3.10
Casual labour	22.04	26.66	28.83	31.44	35.06	34.60

Source: Sarvekshana Vol 14 No.4

The increase in the incidence of casual labour brought out in the above table is attributed by the mid term appraisal to a) the decline in the average size of land holding of the rural household, with the leasing out of land by marginal holders who then become wage or casual labourers, b) increased commercialisation of the rural economy, and c) the breakdown of the traditional semifeudal system - share cropping and jagmani. The data on female workers in the table may be incomplete because female participation rates is highly correlated to poverty and landlessness, which is the characteristic of women workers, and also because even when they work within or outside the home, it is not counted as work by the census, by the male and even by the women themselves. But this structural distortion which increased the number of casual labourers over time for the reasons given above would have been deepened and the number of casual workers increased many fold when the factor of drought is added.

The mid term appraisal also calls attention a third structural change in the rural workforce brought about by migration to urban areas, and equally, if not more important, by the shift from agricultural to non agricultural activities as the table below indicates.

Table XXII

(Percentages)

		Agriculture		Non agriculture	
		Male	Female	Male	Female
Usual status	1972-73	83.23	89.67	16.77	10.33
	1977-78	80.6	88.10	19.4	11.9
	1983	76.80	86.73	23.20	13.27
Daily status	1972-73	-	-	-	-
	1977-78	78.15	83.23	21.85	16.77
	1983	73.29	79.07	26.71	29.93

Source: Sarvekshana op cit

The mid term appraisal attributes the shift recorded in the table of the rural workforce from agricultural activities to non agricultural activities to commercialisation and greater agricultural prosperity. In 1987-88 there must have been an additional factor at work pushing workers out of agriculture. This push factor can be traced to the drought that year.

Earlier reference was made to the increase in the demand for employment during 1987-88 as a kind of relief measure from severe underemployment and consequent semi starvation. We may now turn to see how far the two employment generating programmes, NREP & RLEGP, met this demand. Against the 1986-87 union outlay of Rs.230 crores (to be matched by the states) and Rs.212.65 crores for foodgrains involving the release of 16.22 lakh tonnes and the use of 11.45 lakh tonnes, 392.63 million mandays of employment were generated, well above the target of 275.08 million mandays; during 1987-88 Rs.396 crores were spent, 76 lakh tonnes of foodgrains used and 274 million mandays were generated. Under RLEGP, in 1986-87 Rs.633.65 crores were provided including 133.65 crores for foodgrains using 7.14 lakh tonnes

and 231.88 million mandays were generated: in 1987-88 Rs.356.6 crores were expended, 4.42 lakh tonnes of foodgrains used and 175.13 million mandays of employment generated. The study referred to earlier estimates that these 2 programmes satisfied about 30 per cent of the employment demand during 1987-88, the drought year. One of the lasting benefits of this programme is the physical assets created set forth in the table below:

TABLE XXIII

Items	1986	1987 upto September	1986	1987 upto September
	NREP		RLEGP	
1. Social Forestry (lakh hectares)	2.15	0.68	1.9	97,495 hectares
2. Trees planted (lakh Nos.)	6065	17.47	2772.62	749.58
3. Construction of village tanks (lakh Nos.)	0.06	0.02		
4. Indira Yojana (Nos.)			152036	70,706
5. Minor irrigation & flood protection works (lakh hectares)	0.56	0.08 (hec)	73586.15	7,533.94
6. Soil conservation (lakh hectares)	0.04	0.01 (hec)	31954.50	2,438.66
7. Drinking water wells & ponds (lakh Nos.)	0.16	0.15		
8. Rural roads (lakh kms)	0.39	0.13 (kms)	9062.47	2,067.57
9. School building (lakh Nos.)	0.27	0.30 (Nos)	7123	1,943
10. Rural latrine			(Nos) 59533	25,167

Source: Annual Report, Ministry of Rural Development.

The table shows one of the major results of NREP & RLEGP. Other benefits identified by the Department's concurrent evaluation carried out by PEO and some research institutions are a) 44 per cent of the beneficiaries are agricultural labourers, 29 per cent non agricultural labour, 8 per cent farmers and 6 per cent marginal farmers, b) 87 per cent got employment near their villages, c) the main source of employment was non NREP, NREP providing supplementary employment, d) wages paid were in accordance with the state's minimum agricultural wages, and e) there was an increase in the total wage income of the beneficiary, with 23 per cent coming from NREP. There were also negative features brought out by the evaluation: a) no sound reporting system and no data base, b) except in Gujarat and Rajasthan, there was no shelf of projects built up, c) no priorities and no involvement of beneficiaries planning, d) BDOs, VLWs not playing their part, e) NREP funds treated as substitute for plan funds, f) the assets not evenly distributed spatially but concentrated in some villages and districts and so the employment provided is small. The RLEGP evaluation reports on a) poor monitoring b) sometimes asset creation given priority over employment generation and c) village level surrogate contractors are being used. The programmes have generated employment to the extent referred to earlier, even meeting a third of the demand for employment in the drought year is creditable. Perhaps a study of Maharashtra's Employment Guarantee Programme (EGP) which is now 16 years old and on which Rs.1905 crores have been spent, resulting in the generation of 213 crores mandays, 1.36 lakh of works completed, of which 72 per cent are soil conservation and 13 per cent irrigation may have some lessons for NREP, and equally NREP certainly has lessons for the Maharashtra scheme. For this purpose, the Maharashtra Programme should be surveyed and evaluated

like NREP. Bot the programmes are being restructured in light of the conclusions of the evaluations.

On the labour relations side, the ILO report on industrial accidents in India is disturbing. As against the ministry report[69] that there has been a reduction in fatal accidents which was 214 in 1984 and 155 in 1987 and 214 fatalities in 1986, 169 fatalities during 1987 and that fatalities in non coal mines have shown a downtrend, the ILO report states that in the last 3 decades total accidents have gone up by 225 per cent and non fatal injuries by 393. These too are under estimates a) because not all fatal and non fatal occurrences are reported and the system of surveillance is poor (b) because of the small number of health inspectors. Further there are industrial occupation induced illness, both on the workers and their children as in the case of the gem industry, where a survey is needed. It is to be hoped that the recently enacted Factories (Amendment) bill will remedy this grave lacuna.

The problem of bonded labour continues to be grave. There is still a large gap between the official statistics of bonded labour at 2.14 lakhs and the labour Bureau Survey figure of 22.4 lakhs. It is also becoming clear, on the basis of the experience of freed bonded labourers, (one landlord quips "now I have my bonded labourer coming back, but also bringing with him a pair of bullocks") that there must be demacratisation of political power, access of the freed labourers to land, and the end of societal caste relations on which it is founded.

The annual report refers to the work done during the year on rural unorganised workers referred to in last year's mid year review. The main instrument for improving their condition has been found to be the fixation and full enforcement of the minimum wage act through the Union and state governments. Minimum wages in the construction industry and 32 mining employment have been revised during the year and the establishment of minimum wages for loading and unloading in railway goods shed is underway. In order to reduce the interstate disparity in Minimum wages and avoid the flight of industry/business from one state to another, regional advisory committees are being set up to bring up some standardisation in the wages. The scheme for Organising Rural Workers now operates in 14 states and the Union territory of Pondicherry with the help of 1500 Honorary Rural Organisers. The scheme has been reviewed and dovetailed with the Organisation of Beneficiaries of Anti Poverty Programmes. This is a move in the right direction and has in it the seeds of putting the workers in the unorganised sector in a position to fight for their rights.

In regard to agricultural wages, including minimum wages and related programmes, two studies,[70] show a) close relations between agricultural wages and the productivity of agricultural workers, b) the raising of wages by the employment guarantee scheme of Maharashtra and NREP and RLEGP, c) agricultural wages are lowest in Tamil Nadu, because of low agricultural productivity and unstable agriculture, whereas Kerala has the highest wage because, though, the agricultural output is not increasing, the power of the workers strengthened by his level of literacy has counted: d) agricultural wages in Punjab which were high are stagnating and in real terms declining because of the large inflow of migrant labour and

because of the pace of farm mechanisation, e) overall there is an improvement in the workers standard of living through a rise in real wages, though with the increase in casual labour, referred to earlier, there is now an element of fluctuation in the wage level, and f) the wage level over this long period has been stable due women's money and real wages rising faster than that of men, and because of their growing self employment activities outside the labour force.

The year 1987-88 recorded a fairly satisfactory level of industrial relations with the loss of mandays declining from 29.4 million mandays in 1988, to 32.47 million mandays in 1986, down to 23 million mandays in 1987. The major unrest has been in engineering and cotton and jute textiles. But too much should not be read into these encouraging statistics from the Labour Bureau, because, as the chairman of one of the leading trade unions points out, the disruption and loss of work and productivity within the factory without involving strikes or lock outs is about double that of the latter. The amendments introduced in the Industrial Disputes bill, which inter alia provide for statutory recognition of trade unions through check off and secret ballot, the setting up of industrial relations commissions at the Union and states levels, making it possible for individual workers to have direct access to labour courts and governmental powers to prescribe conditions of employment and ban on strikes and lock outs - all these now are under debate and study. On the other hand, more attention may be given to the BHEL model where the joint committee work shows that i) in a multiple union situation, norms for determining union representation can be evolved by consensus of all parties, ii) joint decisions making on all sections by workers and management can be effected, and iii) both workers and management can form the forum

which becomes the directive authority. The principle of consensus is defined as not unanimity, but sharing differences, listening to each other, and accepting the final choice in spite of personal differences. On this basis, a more extended programme has been launched to try out this system in other places through the National Centre for Industrial Harmony, with headquarters in Madras.

Poverty and Inequality

What was the effect on the poverty of the mass of the people and the inequality between those few with assets and the assetless majority, of the various activities from agriculture, the various fiscal policies including the budget, the growth of manufactures, the trends in savings and investment, the balance of payments and even the employment profile as set forth in some detail in this note. The answer is that nothing is known for the year that has just been crossed, 1987-88, nor for the first 6 months of the current year because there is no data available for the 2 years. We are awaiting the results of the 42nd round of NSS to throw light on the movement of household incomes of the various deciles of the population, and from that derive some information on the state of poverty and inequality currently in the country.

One important advance in this matter of enquiry into the results of the activities on the status of poverty and inequality is that the mid term appraisal after an overall summary of the economy's performance plunges straight into the issue of poverty alleviation right at the start (chapter II). This model might also be followed by the annual economic survey and the annual plan documents. In the Annual Plan for 1987-88 there is in chapter 5 recapitulation of the data contained in the annual report

of the department of rural development, but limited only to 1986-87, but even so, with no comment on the results or statement of over view.[71] This absence of an over view on poverty and inequality in 1987-88 is to be regretted, because what evidence there is shows that many millions who were living at or just above the poverty line, plunged below that line in view of the massive drought in that year: the time series data shows that in years of good agricultural and foodgrains production as in 1977-79 or 1983-84 millions rise above the poverty line, with the reverse movements in drought years. As agriculture is a labour intensive industry and in view of labour intensive industrial development, it is economic growth which is the main alleviator of poverty. As the Seventh Plan states (and is reiterated by mid term appraisal): "it is only in the frame work of an expanding economy and dynamic agricultrual sector that we can hope to make a lasting impression on the problem of poverty and underdevelopment". There is a hidden assumption in this statement that the socio economic structure will not divert investment and resources to the production of non necessaries as they are doing now. With the economy contracting to a growth rate 2.5 per cent and agriculture recording -5.4 per cent in 1987-88, the number of families plunging into poverty and increase in the assetless problem must be manyfold. But there is no data on this.

There are two programmes however which supplementing the main source of poverty reduction, namely economic growth, that provide some data - IRDP which is aimed at alleviating poverty through provision of income earning assets and development of self employment, and land reforms which are aimed at reducing the status of inequality inland ownership and relations.

IRDP's record in 1987-88 was to assist over 39 lakh families (comprising 26 lakh old beneficiaries and 9.96 lakh new ones) with Rs613.38 crores from the Union and states and Rs981.82 crores as bank credit. The achievement till January 1988 was 74.22 per cent of the families targeted were assisted (29.02 lakhs). The evaluation shows that i) 26 per cent of the families belonging to the destitute group (income below Rs1226.50) and another 40 per cent families belonging to the very very poor group (income Rs2250-Rs3500) have benefited from the programme: ii) 59 per cent of the beneficiaries were selected at meetings of the gram saba and 37 per cent by officials: (here it needs to be noted that decentralised operation by itself does not mean that the really poor are benefited as seen in the zilla parishads of Karnataka, where the chairmen (Adhyakshans) were 33.3 per cent Lingayats owning 20 to 100 acres of land each, 22.2 per cent Vokkaligas owning 20-40 acres each. The contrast is with West Bengal, where first land reform was carried out; this meant that the chairmen and members of the 3 tier structure with 46,000 elected members, were small and marginal farmers to the extent 75 per cent, with no one having more than the ceiling land, unlike Karnataka where 50 per cent of the zilla parishad chairman were from the top land owning class, illustrating the truth that democratic decentralisation without land reforms negates development activities for the poor: iii) 81 per cent of beneficiaries found the subsidy and credit adequate for acquiring the asset: iv) 44 per cent of families had no overdues and 31 per cent less than Rs1000: v) in 72 per cent of cases the assets were intact in the remaining the loss of asset was due to death or illness, or inadequate income generation, or high maintenance costs, vi) the assets had generated incremental income of Rs2000 in 28 per cent cases,

between Rs.1001 and Rs.2000 in 23 per cent cases, between Rs.501 and Rs.1000 in 17 per cent of cases and upto Rs.500 in 10 per cent of cases: vii) at the national level 59 per cent of old beneficiaries had crossed the old poverty line of Rs.3500 and 12 per cent the revised level of Rs.6400: and viii) the increase in family income was more than 50 per cent of their pre assistance income in 46 per cent of families and more than 100 per cent in the case of 13 families. The defects shown up by the evaluation of the programme were: a) 9 per cent of selected families were ineligible: b) working capital needed in 59 per cent cases but not provided to 24 per cent: c) the repayment period was less than 3 years in 15 per cent: d) there were lacks in insurance in 26 per cent cases, in training 32 per cent cases and in after care and support by government agencies in 54 per cent cases: and e) there was no incremental income from the assets in 22 per cent cases. These defects are being corrected states the department.

To sum up, there is both macro and micro evidence of the positive effects of IRDP and its relieving poverty. At the macro level 12 per cent of beneficiaries who entered the programme in the Sixth Plan crossed the poverty line of Rs.6400, that in most states in the majority of cases the assistance meant for the poor has gone to them, the over emphasis on milch animals as assets has been corrected, and in most cases, assets are intact after 2 years and justify their cost. At micro level, the IRDP evaluation in UP, for instance, bring in additional positive points such as the low ICOR of 1.66 per cent compared to the 2.7 per cent assumed in the Seventh Plan, and that of the 76 per cent of beneficiaries who maintained their assets intact, the

poorest of the poor maintained the assets better than the upper income beneficiaries. The basic questions raised by the programme, which classifies the poor into a) destitutes whose income is Rs.1 to 2265 and are 26 per cent of the families benefited, b) the very very poor families whose income is Rs.2266-Rs.3500 of whom 44 per cent have been benefited and c) the poor families with income between Rs.3500 and Rs.6500[72], - the basic question is not only the small numbers who crossed the poverty line, referred to earlier, but their being largely those who are near the poverty line - the upper income group among the poor (the class c above). This means that those who are further away from the poverty line - the destitutes and the very very poor will not be able to rise above the line (their poverty) until there is a much higher investment. Thus a very very poor family, for instance, earning Rs.2500 would get Rs.275 to Rs.300 as incremental income from its asset (which is the VI Plan record of 11-12 per cent income growth), which will make the income Rs.2735 to Rs.2800. If the very very poor families are to be brought above the level of Rs.6500, the investment in the programme must be doubled at the least. The other problem is that even those living near the poverty line who rise above it, face the problem of slipping down in a famine year, as noted earlier. (In this connection attention is called once more to the very serious underestimation in the NSS 38th round of 4.97 million in the age group 5+ being unemployed, which is in contradiction to the fact that 44.4 million families are below the poverty line, of whom 50 per cent are the very very poor which gives an unemployment total of 24 million.

On the only programme directly attacking inequality the record is poor as of 1988 June. The annual report states

that upto now from the start a small 44.31 lakh acres of surplus taken over land were distributed among 41.01 lakh beneficiaries, of whom 14.31 lakh are scheduled castes and 5.64 lakh scheduled tribes. This is a token effort because in addition to the evidence of the governments of Himachal Pradesh, West Bengal, Rajasthan etc that the bulk of land left over for distribution is just sand and rock, the secretary in charge of the programme who has just retired says that the real surplus available for distribution is 8-9 million hectares over above the 44 lakh acres distributed plus 26 lakh acres yet to be distributed. In the interest of this programme aiming at some reduction in inequality of asset ownership, the government with the help of NSS should arrive at a firm figure of surplus land. Against this fuzziness, it is not surprising to find that the RBI All India debt and investment survey of 1981-82 reporting that assets distribution as between the 10 per cent at the lowest level and 10 per cent at the top level remained practically unchanged from the 1971-72 survey, and that in addition to land, financial assets -shares, insurance, debentures and degrees was about the same - 1.1 per cent in 1971, and 1.2 per cent in 1981 as noted earlier. Another area of land reform, tenancy reform is still not complete, though its completion date had been fixed at 1982. Informal tenants and share croppers are still to be provided with secured and ownership rights. Consolidation has not progressed beyond Punjab and in part Haryana and West UP. The land reform scope and coverage is incomplete.

One hopeful sign, referred to earlier is the scheme to Organise the Rural Poor so that they may counter: a) the heavy leakages, as on the average about 10 per cent of the benefit voted for them by the parliament or state assembly

actually reaches them: b) the neglect of the minimum wages acts for agricultural labour: c) exploitation of the unorganised labour sector comprising 89 per cent of the workforce (220 million according to the 1981 census), and more generally d) the neglect of their rights as voted for them. The government has made available 630 staff members to help launch and aid this programme. The problem is that as long as power (economic and political) resides in an elite - rural and urban - comprising nearly less than 5 per cent of the population, will the unorganised and exploited poor be allowed to organise themselves to fight for their rights?

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ERRATA

The errata rectifies mainly some errors in the report.

1. Page 1 line 3 - Read 'in 1987-88' in place of 1986-87
2. Page 1 line 4 - Read 'in 1987-88' in place of 1986-87
3. Page 5 line 27 - Read 'in power and manufacturing' in place of in power and management
4. Page 7 line 7 - Read '1966-67 to 1968-69' in place of 1967-68 to 1969-70
5. Page 11 line 7 - Read '8 to 9' percent in place of7 to 8
6. Page 17 line 5 - Read 'Revenue increase from direct taxes' in place of Revenue from direct taxes.
7. Page 19 line 13 - Read 'the increased Rs690 crores' in place of the Rs690 crores.
8. Page 23 line 19 - Read 'awarding' in place of rewarding
9. Page 27 line 19 - Read 'their daily transactions' in place of its daily transactions
10. Page 28 line 12 - Read 'as the 1987-88 withdrawal' in place of as the withdrawal
11. Page 29 line 17 - Read 'speculation' in place of specualtions
12. Page 32 line 8 - Insert last column: April-October 7.8 (next to 1.6)
13. Page 35 line 17 - Read '1988-89' instead of 1987-88
14. Page 36 line 11 - Read 'the two years 1987-88 and 1988-89' in place of the two years
15. Page 36 line 28 - Read 'food crops production' in place of crops production
16. Page 38 line 3 - Read 'and non food crop yields' in place of non crop yields
17. Page 39 line 7 - Read '395-416 grammes' in place of 185.3 grammes
18. Page 41 line 22 - Read 48 million to 50 million' in place of 55 million to 65 million
19. Page 42 line 6 - Read 'at Rs170 per quintal' in place of at Rs240 per quintal
20. Page 43 line 11 - Read 'cereals from' instead cereals for from
21. Page 47 line 7 - Read ' million tonnes' instead of million capacity
22. Page 49 line 25 - Read '20-28 lakh bales were with' instead 20-28 lakh bales with

23. Page 51 line 14 - Read 116.8 lakh bales' in place of 126.8 lakh bales
24. Page 61 line 7 - Read 'works is 0.7 million' in place of works are 0.7 million
25. Page 64 line 12 - Read 'recorded 12.7' in place of recorded 14.4
26. Page 67 line 18 - Read 'capital goods announced' in place of capital announced
27. Page 69 line 28 - Read 'mass of the people' in place of mass of its people
28. Page 73 line 18 - Read 'public sector projects' in place of public sector project
29. Page 73 line 22 - Read 'the supply of equipment' in place of the supply equipment
30. Page 74 line 28 - Read 'value of production increase' in place of value of production
31. Page 75 line 30 - Read 'The RBI and Commerce' in place of The RBI Commerce
32. Page 86 line 11 - Read 'improvement of their viability' in place of improve their viability
33. Page 89 line 32 - Read 'order was relaxed' in place of order was released
34. Page 90 line 16 - Read '$1500' in place of $15000
35. Page 96 line 11 - Read 'The paper industry is the one' in place of The paper industry is one
36. Page 98 line 7 - Read 'have no relation' in place of have no relations
37. Page104 line 2 - Read '3 million tonnes a year' in place of 3 million tonnes
38. Page106 line 30 - Read 'is called upon to set apart' instead of is called upon to
39. Page123 line 22 - Read 'upto February 1988' instead of upto February 1987
40. Page125 line 3 - Read '2-3 lakh plants for the year' instead of 2-3 lakh chulas for the year
41. Page140 line 18 - Read 'the household sector from 14.1 percent' instead of the household sector from 14.5percent
42. Page140 line 17 - Read 'cent in 1987-88' in place of cent in 1988
43. Page141 line 21 - Read 'to near 6 in the Sixth' in place of to near 6 per cent in the Sixth
44. Page141 line 25 - Read 'forms of the household sector's' in place of form of the private sector's

45. Page 141 line 28 - Read 'forms of the household sector's' in place of forms of the private sector's
46. Page 142 line 1 - Read'that the household sector's' in place of that the private sector's
47. Page 142 line 10 - Read 'or show stabilisation' in place of or slow stabilisation
48. Page 146 line 19 - Read 'for the subsequent 2 years' in place of for the subsequent 3 years
49. Page 150 line 20 - Read 'lead to a marked fall' in place of lead to a marketed fall
50. Page 154 line 1 - Read 'by Turkey' instead of into turnkey
51. Page 154 line 10 - Read 'there is a deal of looseness' in place of there is deal of looseness
52. Page 160 line 22 - Read 'one relates to the proportion' in place of one relates that the proportion
53. Page 163 line 5 - Read 'about 30 per cent of the' in place about 3 per cent
54. Page 163 line 8 - Read 'created as set forth' in place created set forth
55. Page 165 line 1 - Read 'Both the programmes NREP &RLEGP' in place of Bot the programmes are
56. Page 167 line 12 - Read 'from 39.4 million mandays in 1985' in place of 29.4 million mandays in 1988
57. Page 167 line 32 - Read 'of all sections by workers' in place of on all sections by workers

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