76

Bulletin

Madras Development Seminar Series.

Vol-22 NO-4.5.6

April. To. June-1992.

A.L

76

BULLETIN

MADRAS DEVELOPMENT SEMINAR SERIES

Vol. XXII No 4 April 1992

Sustainable Horticulture

Structural Adjustment in the Indian Economy-an assessment

CONTENTS

EDITORIAL - SOME HIGHLIGHTS

1. General Economic Scene

State

1992-93 Plan

The deadlock between the state government and the union Planning Commission over the latter's allocation of Rs. 1486 crores as the 1992-93 Plan outlay reported in the last issue has been revised with the Planning Commission agreeing to Rs 1751 crores as the outlay for 1992-93 as requested by the government This is arrived at, according to the Planning Commission, as follows: Rs 1486 crores as the outlay for 1992-93 agreed at the January meeting between the state government and the commission, plus Rs. 168 crores which the state has stated that it will raise as further resource mobilisation, plus Rs. 50 crores under externally aided projects plus Rs. 50 crores as likely union assistance on union sponsored projects transferred to the states —Rs. 1751 crores. The increased Rs. 150 crores will be shared by increased allocations to agriculture, energy, transport, and social services - agriculture from Rs. 187.53 crores to Rs. 215 crores, power from Rs. 425.65 crores to Rs. 458 crores, transport from Rs. 89.116 crores to Rs. 126 crores, and social services from Rs. 47.97 crores to Rs. 70.80 crores. Two points on this may be noted. Whether the state will reach Rs. 1486 crores or Rs. 1751 crores on the plan outlay in 1992-93 depends on a) its being able to raise the additional resources promised and b) whether it is able to spend the 1991-92 (current year) outlay of Rs. 1605 crores on which the commission has doubts. Second, the state faces a very tight financial situation with Rs. 236 crores for the noon meal scheme, Rs. 2790.15 crores on salaries, Rs. 1250 crores as overhead, water supply to the farmers, Rs. 346 crores as subsidy on rice supplied through PDS, Rs. 42 crores as rebate to handlooms, Rs. 24 crores as free bus pass to students, Rs. 19 crores as free uniform to students, Rs. 4.50 crores as free footwear to school children, Rs. 18 crores as free textbooks, Rs. 15 crores as assistance to pregnant women, Rs. 5 crores as old age pension schemes, Rs. 41.56 crores as free supply of dhoties and saries, Rs. 17.14 crores as interest loans and Rs. 1500 crores as debt repayment to the union government. The government reports to the Assembly that the 1988-89 plan expenditure of Rs. 1020 crores was 12 per cent short of the provision of Rs. 1157.64 crores outlay due to the shortfall in all items. This record shows that in 1992-93 the plan outlay target will not be met and the government will have to cut back on its increasing welfare schemes to stay financially viable.

Power

Power in the state in February was normal, with all its hydel stations working fully as the hydel reservoirs had adequate water storage due to the good rains and thermal stations working with coal being stored for the difficult summer months. TNEB reports that the 210 MW fourth unit of the Tuticorin thermal power station was commissioned on schedule on February 11, that is within 40 months during which the BHEL boiler and turbo generator were erected, tested and went on stream. This was followed by commissioning of the fifth 210 MW set on February 20. With this addition, the total installed capacity of the BHEL thermal sets has risen to 2751 MW, making up around 70 per cent of the installed thermal capacity in the state and that of the Tuticorin plant to 1030 MW of installed capacity.

At the national level the power situation was normal except in the few states where cuts on HT users were imposed to save power. The loans of NTPC and NHPC due from the state boards are mounting and will be reaching Rs. 3400 crores by 1993-94 against the present Rs. 1644 crores. This huge indebtedness of the State Board is related to the question of remunerative tariffs and and poor collection performance. Hence the World Bank which has loaned these two agencies - NTPC and NHPC - over $1 billion is now insisting on the loans being transferred from the 2 bodies to the National Power Transmission Corporation (NTPC). The problem faced by the government in this action is that NTPC will raise power tariffs sharply as the only means of meeting the loans. The Bank is proposing the rate of return on the investment in power that has been needed and this will certainly push up power tariff rates. There is no alternative to this rather bitter medicine to make up for the years of profligacy. NTPC and the Aseon Brown Bovry (ABB) have concluded a joint venture agreement for the construction of massive power plants in the country. Under the agreement, ABB will import $11 billion worth of equipment in the power sector. This agreement was signed at Davos when the Prime Minister was attending the World Economic Forum. Similarly Siemens of Germany has offered $1 billion as technical credit to NTPC for setting up major projects during the VIII Plan. Both these accords will now go before the cabinet for approval. The Department of Non Conventional Energy reports that it is offering attractive incentives to industrialists to set up wind power plants. Here the private sector is being invited to "bank and wheel" the wind power along lines of the 4 MW of wind power at present contributed by it in Tamil Nadu. The department plans to raise wind power generation capacity to 400 MW during the VIII Plan - and this will be a real alternative to the expanding conventional sources of power. The country is said to have the potential to generate 20,000 KV of wind power both in the plains and

hills of HP, Orissa, MP, Karnataka and Tamil Nadu. The private sector has here an open field for development.

Transport

Two developments in the transport field are reported in February. One is a programme to run the state transport on gas. A phased programme is planned under which 10,000 buses of the state Transport Corporations will be switching over to run on compressed natural gas (CNG). A start is being made with the Cheran Transport Corporation to run 10 buses on CNG. The first pilot run of a Cheran bus was successfully organised on February 20. This would strengthen the decreasing trend in the rate of oil consumption in the state caused by the rise in its price by 82 per cent in 1989 and 55 per cent in 1990 and be important means of conserving crude oil and its product. The other development is that under the Tamil Nadu Urban Development Project the World Bank has cleared 10 additional roads improvement work at a cost of Rs. 30 crores. World Bank assistance has increased sharply, by more than 50 per cent, following the devaluation of the Rupee, from that original outlay of Rs. 626 crores to Rs. 930 crores. This has enabled the programme to be extended to 10 urban centres including Madras, Madurai, Coimbatore and Salem. As a consequence, by the terminal date of March 1983, there will be a real transformation of the road net work in the state.

Permanent Trade Fair

The state's trade facilities are to be augmented by the establishment of a permanent trade fair at Taramani. This is being developed by the merged Trade Development Authority and the Trade Fair Authority of India in the unified Indian Trade Promotion Organisation and the state government. A number of industrialists have expressed interest in the venture and will be participating in the project. ICICI is preparing a detailed project report to be ready by February 15. It will have an initial investment of Rs. 330 crores. This trade fair facility will augment the trading opportunities in the state and bring the state's trade into the national mainstream organisation, with the Council for Leather Exports, will help to make the trade fair complex an important state and all India facility.

Urban Development

The Madras Water Supply and Sewerage Board (MWSSB) is desilting the major and critical sewer lines in Madras city before the onset of the monsoon. In this, the bucket system has been introduced and is clearing the works rapidly. It lowers the cost. Now the city should face the monsoon with confidence. Equally the industry water supply is after a long time plentiful and adequate. The water supply in the reservoir will enable the current rate of 55 million gallons a day to be supplied well into January 1993. The government states that it will spend Rs. 300 crores on urban development, using the saving from the devalution of Rupee. The development includes an elevated leeway on Anna Salai (Rs. 100 crores), improvement of roads in all the 10 urban centres covered under the World Bank loan (Rs. 100 crores) and a contribution to the Municipal Development Fund (Rs. 100 crores).

Small Savings

The government announced raising the interest on small savings from 2 to

2.5 per cent for the remaining 2 months of the financial year. This it is hoped will enable the state to reach the small savings target. The government states that if small savings reached Rs. 1000 crores, with the budget deficit of Rs. 575 crores, there will be no additional tax in next year's budget (1992-93). This remains to be seen.

National

Union Budget 1992-93

The government introduced the union budget for 1992-93 in Parliament on February 29. The Budget presented may be summarised as follows :

(in Rs. crores)	1990-91 Actuals	1991-92 (B.E.)	1991-92 (R.E.)	1992-93 (B.E.)
1. Revenue receipts	54,954	67,529	66,549	75,688
2. Tax revenue (net to Centre)	42,978	52,500	50,006	56,456
3. Non tax revenue	11,796	15,029	16,543	19,232
4. Capital receipts	39,015	38,174	39,521	38,010
5. Recoveries of loans	5,712	5,666	6,261	6,491
6. Other receipts	—	2,500	2,500	2,500
7. Borrowing and other liabilities	33,303	30,008	30,760	29,019
8. Total receipts (1+4)	93,969	105,703	1,06,070	1,13,698
9. Non-Plan expenditure	76,198	79,697	80,070	84,475
10. On revenue account	60,850	64,315	66,696	71,233
11. On capital account	15,348	15,382	13,374	13,242
12. Plan expenditure	29,118	33,725	33,032	34,612
13. On rev nue account	12,666	17,068	16,934	18.337
14. On capital account	16,452	1,16,657	16,098	16,275
15. Total expenditure (9+12)	1,05,316	1,13,422	113,102	1,19,087
16. Revenue expenditure (10+13)	73,516	81,383	83,630	89,570
17. Capital expenditure (11+14)	31,800	32,039	29,472	29,517
18. Revenue deficit (1+16)	18,562	13,854	11,081	13,882
19. Budgetary deficit (8–15)	11,347	7,719	7,052	5,389
20. Fiscal deficit (1+5+6)—15=7+19)	44,650	37,727	37,792	34.408
Increase in net RBI credit to Central Government*	14.745	7,719	8.800	5389**

* Including other variations in Reserve Bank of India's credit to Central Government.

** Not independently estimated — PTI

The budget presented shows that in 1991-92: i) the revised budgetary deficit is lower at Rs. 7032 crores over the budget estimate of Rs. 7719 crores and the revised fiscal deficit is Rs. 37792 crores against the budget estimate of Rs. 37727 crores which is 6.5 per cent of GDP (in accordance with commitment made to IMF), and compared to 8.4 per cent in 1990-91. ii) total receipts in the revised budget are a little higher at Rs. 106070 crores, against the budget estimate of Rs. 105703 crores. iii) total expenditure in the revised budget are also a little lower at Rs. 113102 crores against the budget estimates of Rs. 113422 crores. iv) the Revenue deficit in the revised budget shows a sharp increase at Rs. 17081 crores against the budget estimate of Rs. 13854 crores due mainly to the fall in revenue receipts including in particular the tax revenue in the revised budget. That is, customs revenue fell by Rs. 3760 crores due to the severe import compression and was only partially compensated by high tax realisation from excise duties and income tax, making the shortfall in gross Rs. 1869 crores. v) the plan expenditure in the revised budget estimate is Rs. 33725 crores due mainly to the difficult resource position, resulting in limiting budget support to the union plan at 7 per cent less than the budget estimates. But union assistance for state plans, were increased by Rs. 651 crores. higher than the budget estimate (which compensates a little for the Rs. 1365 crores shortfall they suffered in small savings loan). In the 1992-93 budget: i) the budget deficit is further reduced to Rs. 5389 crores, ii) the fiscal deficit is reduced to Rs. 34,408 crores which is 5 per cent of GDP, iii) revenue receipts are estimated at Rs. 75688 crores and tax revenues to the union Rs. 56456 crores, on the basis of the Chelliah Committee recommendations involving: a) personal income tax rates being fixed at 20 per cent at entry level, 30 per cent on income above Rs. 50,000 and a maximum of 40 per cent on income above Rs. 1 lakh against 50 per cent maximum previously. b) firms to be taxed at a flat rate of 40 per cent, c) no change in corporate taxes, d) surcharge of 10 per cent in the case of companies to continue and on individuals only on those with income over Rs. 1 lakh, e) reduction in number of tax incentives, the deduction under sections 80L, 80CCA and 80CCB being abandoned, f) to counter the fact that only 7 million people out of the population of 850 million pay direct tax (income and corporate tax) a presumptive tax is introduced on shop keepers and traders with an annual turnover below Rs. 5 lakhs at the flat rate of Rs 1400 for the year, g) capital gains to be taxed at a flat rate of 20 per cent for individuals and 40 per cent for companies and firms, with indexation for capital gains, h) in order to plug the loophole of leakages the income of a minor child is to be clubbed with that of the parent, excluding professional incomes of child artists and wage income of minors from such clubbing, i) the standared deduction of working women increased from Rs. 12000 to Rs. 15000 and the tax rebate of 10 per cent for the old and increased deduction of income tax payers who support handicapped persons from Rs. 6000 to Rs. 12000, j) private sector mutual funds authorised by SEBI to be exempt from income tax, k) income of foreign currency convertible bonds of Indian companies to be taxed at a concessional 10 per cent and all NRIs to be protected from foreign exchange fluctuations in respect of capital gains, l) wealth tax to be levied only on non productive assets, with increased exemption limit of Rs 15 lakhs, m) all individuals and companies to pay wealth tax at 1 per cent, n) expenditure tax on air conditioned restaurants withdrawn and that on hotels only where room rent charged is above Rs. 1200 per day, o) exemption from expenditure tax on payments made in foreign exchange withdrawn, as with the partial convertibility of the rupee and the exchange adjustment made, there is no longer justification for this exemption, and p) tax deduction at source on interest from time deposits in banks and from commissions and brokerage is withdrawn. All these direct tax reforms are based on the recommendation of the Chelliah committee. Similarly on indirect taxes, in customs duties: a) the basic plus auxiliary duties are reduced from last year's reduced 150 per cent to a maximum of 100 per cent, with exception of passenger baggage and alcoholic beverages, b) duty on capital goods from 80 per cent to 60 per cent and in the case of electronics industry from 60 per cent to 50 per cent, the capital goods in projects for coal mining, crude petroleum refining and power to 30 per cent and on all other capital goods from 80 per cent to 70 per cent, c) duty on firms reduced by 20 per cent, d) duty on specified pesticide from 110 per cent to 75 per cent and on specified pesticide, pesticides intermediates from 120 per cent to 65 per cent, e) full exemption from import duty on seeds for vegetables, pulses, oilseeds, flowers and duty on rice transplantation reduced from 80 per cent to 40 per cent, f) duty on petro chemicals reduced and g) duty on asbestos fibre reduced from 90 to 70 per cent on raw silk from 55 per cent to 30 per cent, and g) export duty on imported silk, finished leather, granite and iron ore : in excise, a) duty on cigarettes increased, b) duty on cement raised, c) duty on light commercial vehicles increased from 10 to 15 per cent, d) varying increased duty on VSF, VFY and acrylic fibre, e) duty rationalised on processed fabrics, on cotton yarn and polyester blended yarn, f) more ad valorem rates on ferrous and non ferrous metals, g) duty on detergents and polythene increased, h) duty on cocoa and cocoa based products raised by 10 per cent, i) duty reduced for moped tyres but increased for other tyres, j) duty on paints, wires and cables raised by 5 per cent each, k) duty on watches raised, l) exemption for glass containers, panel doors, plastic windows, red mud bricks and m) duty on prefabricated building reduced from 15 per cent to 3 per cent, 15 per cent levy on 2 wheelers and all others to pay uniform levy of 25 per cent ad valorem: The net impact of the customs and excise proposals amounts only to Rs. 187.55 loss. The loss of Rs. 876.82 crores in customs falls entirely on the union, whereas the excise increase is shared with the states giving them Rs. 1064.37 crores. Taking direct and indirect taxes yields, the result of the net revenue loss of Rs. 517 crores accrues to the union, while the states gain Rs. 1500 crores. Other proposals include i) a new system of partial convertibility of the Rupee to boost exports. The new system will replace Ex-Imp scrips. In the new systems 40 per cent of the foreign exchange remitted will be converted at the official exchange rate and the remaining 60 per cent at the market determined rate, (which the finance minister hazards will be +15 per cent or so). The foreign exchange surrendered at the official rate will be available to the government to meet foreign exchange requirements of essential imports like petroleum and oil product, fertilisers, defence and life saving drugs. All other imports will be freely importable on open general licenses with the foreign exchange obtained from the market: ii) the total Union Plan outlay for 1992-93 is Rs. 48407 crores, with union assistance

to the plan of the states increasing form Rs. 14,710 crores in the budget estimate for 1991-92 to Rs. 16,111 crores in 1992-93. The internal budgetary resoures will be Rs. 29,906 crores, which is an increase of 25 per cent on the current year's level and is critical to achieve the substantial increase in the Plan outlay. The outlays for the railways are increased from the current years's Rs. 5325 crores to Rs. 5700 crores in 1992-93, for shipping from Rs. 617 crores to Rs. 1222 crores, the civil aviation from Rs. 433 crores to Rs. 4500 crores, in fertilisers from Rs. 481 crores to Rs. 1234 crores. The outlay for power is fixed at Rs. 6411 crores and for petroleum Rs. 6054 crores. The allocation for rural development is Rs. 2610 crores which is lower than the budgeted estimate of 1991-92. Family Welfare allocation has been increased to Rs. 1048.7 crores which is an increase of Rs. 344 crores. iii) the budget abolishing government control over capital issues which liquidates the office of controller of capital issues and states that it will soon award FERA. iv) reduces the statutory liquidity rates from 38.5 per cent to 30 per cent in accordance with the Narasimhan Committee Report recommendation, which it is proposed to follow in a phased manner, v) lower the floor level of interest tax on commercial loans, vi) gives permission to companies with a good track record to issue convertible debentures or equity to investors abroad at par with the benefits available to offshore mutual funds, vii) proposes a a small farmers agri business consortium financed by RBI, NABARD and IDBI which will start 12 major projects in the country, based on a mix of entrepreneurs, state governments and farm families, viii) its aim to increase food yield, productive jobs and higher incomes in rural araas, ix) allocated Rs. 2500 crores for food subsidy, which may be augmented during the year to meet the needs of the revamped PDS, x) allots Rs. 5000 crores as fertiliser subsidy, xi) sets Rs. 17500 crores as defence outlay and an ad hoc increase in pensions to defence personnel, xii) permits import of gold upto 5 kg on payment of duty at Rs. 450 per ten grammes, xiii) introduces a tax free gold bond scheme under which a bond will be received in return for gold, the bond being for 5 to 7 years and could be liquidated by return of the gold, and levy wealth and gift and income tax, xiv) Rs. 1000 crores will be available from the International Development Association to be used for the social safety net schemes including special schemes for unorganised workers. An additional allocation of Rs. 500 crores from the corpus of the National Renewal Fund is being ear marked for employment generation schemes supplementing the employment generation through the Jawahar Rozgar Yojana. Also a scheme is being worked out to upgrade technology of handicrafts which is a major employment and employment generating sector: a) very important decision is that market borrowing is being reduced in 1992-93 to Rs 5000 crores. The sectoral outlays for 1991-92 and for 1992-93 and the percentage change in the 2 years are as follows :

Sector	1991-92	1992-93	%change
Agriculture	1735	1929	8.20
Rural Development	2356	2510	10.8
Irrigation and flood control	217	231	6.5
Energy	12269	14999	22.2
Industry & Minerals	6590	8198	22.2
Transport	7415	9129	22.5
Communications	3530	4890	34.7
Science, Technology & Environment	841	936	11.2
Social Services	4585	5128	12.3
Others	454	409	-2.9
Total	40172	48172	20.5

The budget for 1992-93 is an innovative one. It proposes, i) the partial convertibility of the Rupee and the abolition of the Eximp scrips which will both boost exports and reduce bureaucratic paper work and corruption, ii) the introduction of gold bonds and gold imports as a means of decreasing gold smuggling, iii) the small farmers agri business consortium which can boost the agricultural and rural sector — in production, employment and incomes, iv) the reduction in fiscal deficit and more important budget deficit which will continue the financial discipline started in 1991-92 and contribute to inflation control to some extent, v) the reduction in revenue deficit from the 1991-92 revised from Rs. 17081 crores to Rs. 13882 crores through keeping down the revenue expenditure to Rs. 82750 crores, which is marginally higher than the 1991-92 revenue expenditure, vi) the widening of the tax net by the introduction of the presumptive tax, vii) the reduction in some of the items of non plan expenditure, on interest payments and particularly through the cut in market borrowing which will help reduce future interest payments-all these are positive factors to be welcomed. The questions on the budget relate to: a) to reform income tax which is based on the theory and assumption that low rates of taxation will lead to greater tax compliance and less tax evasion which so far has no empirical proof, b) a sharp reduction in customs duty and the consequent loss of revenue to the government which complies with the World Bank advice, but its effect on India's capital goods industry needs attention, c) the effect of the budget on inflation which is the country's No. 1 priority is not clear as no direct restraint of prices including foodgrain prices has been proposed, d) similarly the effect of the budget on correcting the balance of payment deficit in the country is also not evident and needs watching. Finally the deficits reduction involving limiting of reducing Plan outlay which will affect

development in the remaining years of the VIII Plan, and as noted, has involved reduction in the social sector which falls on the poor as far as employment generation and poverty alleviation and primary adult education are concerned. Even health care is limited, and only family planning provision has been increased. Hence the dilemma how we can bring about structural adjustment for introducing stability and growth in the economy without making the poor pay the price is before us for solution.

Chelliah Committee Report

Since there has been constant reference to the report of the committee on tax reform, called for short, the Chelliah Committee, a summary of the report laid before Parliament is made here. The committee in its report on the tax reform for the country, a) aims at ridding the country of tax loopholes, provide a fillip for genuine savers, and make the tax system more efficient and revenue earnings. b) it lays down the principle that the tax system and its burden must be acceptable to all the people of the country. c) it says that while the wealth tax structure should be progressive, it should not be such as to induce the generation of unaccounted income and wealth (black money). d) the tax structure once established should be stable unless and unlike the economic condition undergo a radical transformation. "Ad hoc changes from year to year will undermine rationality and reintroduce complications". e) the tax system and law should be as simple as possible and should have the limited objective of raising revenue for the government in a fair and efficient manner, achieving redistribution and discouraging some industries and the use or consumption of some products as well as granting a reasonable degree of protection to domestic industries, f) the tax system should have a limited number of rates and exemptions or deductions and give the least possible discretionary power to tax official to interpret the law. g) the methods of tax administration should be modernised and tax enforcement visibly improved. h) on income tax on individuals, the exemption limit should be fixed at Rs. 28,000 and the marginal rate should be 20 per cent for total income with a range of Rs. 28,000 to Rs. 50,000, 27.5 per cent in the range of income of Rs. 50,000 to Rs.2 lakhs and 40 per cent for total income exceeding Rs. 2 lakhs. i) for local authorities tax should be a flat 30 per cent. j) in the case of domestic companies, the tax rate increase or surcharge should over the next 3 years (by 1995-96) be reduced to the same rate as for individuals at 40 per cent. k) the existing distinction between companies in which the public are not interested and those in which they are interested should be abolished. l) the complete statement of the incomes of both the spouse or all members of the family is not possible. m) the tax rebate under section 88 for investment in Provident Fund, NSC. should continue to be allowed at the entry point for investment upto Rs. 10,000. Tax concessions should be restricted to Provident Fund, LTC and repayment of loans taken for house construction. n) tax concessions under section 50CCA for investment in annual plans of LIC should be withdrawn, while tax concessions under section 80CCB for investment linked saving scheme should be abolished. o) the existing ceiling of Rs. 40 000 in NSS under section 80CCA should be enhanced to Rs. 50,000. Provisions of sections 35-AC, 35-CCA, 35-CCB and 80GCCN should be restricted to 50 per cent, in the case of other donations under section 80G deduction should be allowed only for approved bonds and not for expenditure on an inhouse programme, p) tax incentives should be kept well ordered, the rules for perquisite valuation of concessional rent accomodation should be mobilised to make it equal to 20 per cent of the salary. This should apply to both public and private sector employees, q) clause 13A of section 10 providing for exemption of house rent allowance as per rule 2A should be abolished. r) when the expenditure increase by the employer in providing housing is in excess of 20 per cent of the salary of the employee, such excess which remains should be captured in the tax assessment of the employee, should be subject to a separate fringe benefit tax of the employer at the flat rate of 30 per cent. s) At least 80 per cent of the leave travel allowance, home travel allowance, travel allowance on retirement, passage may be subject to L&S. t) the allowance paid to legislators should be fully subject to tax. u) the value of other perquisites as contained in rule 3 should be revised upward to allow for inflation. v) for capital gains, a long term capital asset should be deemed to mean a capital asset transfer after 1 year from the end of the financial year in which the asset was acquired. The cost of the assets acquired prior to a cut off date should be converted into the value of the asset on that date. The gain should be computed after adjusting the cost of acquisition and improvement by the cost inflation index. w) existing provisions restricting the deductability of certain expenses in business should be reviewed. The deduction of Rs. 3600 for a residual unit forming partof building for 5 years should be withdrawn. As the lower rate of income tax will benefit house property owners the deduction for construction of new residential units should be withdrawn from the assessment year 1993-94. x) all amount equal to one fifth of the annual property value should be allowed as statutory deduction for house repair and the exemption of interest on pre completion of loan should be reduced from 5 years to 3 years. y) the registration of firms for income tax purposes should be abolished as also the existing tax on firms income. The problem of benami partners should be tackled by the benami (protection) Act of 1988. z) traders and manufacturers operating on a small scale but on the taxable income should be brought under the presumptive Act scheme. AA) a second variant of the presumptive tax scheme will take an estimated percentage of the gross turnover in the business, the percentage varying with the type of business. The scheme is called the Estimated Income Scheme (EIS). AB) tax on wealth should be abolished on all items except those which are unproductive. AC) the first Rs. 15 lakhs of the net value of taxable items of wealth should not attract any tax and excess above that to bear tax of 1 per cent value. AD) the total income of the cooperative society above the exemption limit should be taxed at 30 per cent. AE) restructuring of import tariff to be progressively achieved so that by 1989-90 average tariff rates are reduced to 25 per cent and the maximum to 50 per cent. The basic and auxilliary duty should be combined into one protective tariff. AF) a switch to value added tax for domestically produced goods and services is proposed. AG) under this value added tax system, such services as advertising, stock brokers, automobile insurance should attract 10 per cent tax of the value of the transaction. AH) creation of a Directorate of Valuation is proposed and AI) a tariff guide giving the classification of all commodities manufactured in the country should be made available. Thus in the

budget for 1992-93 some of the recommendations like the exemption limit for personal income tax have been accepted and incorporated in the budget proposal, others like the slabs and rates have been accepted with modification and a majority on indirect tax are not incorporated in this budget.

Railway Budget

The Railway Budget for 1992-93 presented to Parliament at its start on February 25 is characterised by an increased resources mobilisation effort. The budget summary is as follows :

Actuals 1991-92	Budget 1991-92	Rs. Crores	Revised 1991-92	Budget 1992-93
12096.49	13319.00	(a) Gross Traffic Receipts	13586.00	15884.00
8233.90	9180.00	(b) Ordinary working expenses	9205.00	13884.00
1950.00	2000.00	(c) Appropriation to Depreciation Reserve Fund	2000.00	2300.00
969.96	1050.00	(d) Appropriation to Pension fund	1090.00	1200.00
11153.86	12230.00	(e) Total working expenses (b) + (c) + (d)	12295.00	1360.00
942.64	1089.00	(f) Net Traffic Receipts (a) — (e)	1291,00	1924.00
171.15	183.00	(g) Net Miscellaneous Receipts	183.00	206.00
1113.78	1272.00	(h) Net Railway Revenue (f) + (g)	1474.00	2130.00
926.14	1037.00	(i) Dividend payment to general revenues	1039.00	1120.00
11.97		(j) Payment of deferred dividends		416.45
+ 175.67	+ 235.00	(k) Excess/shorfall (h)-(i)-(j)	+435.00	+563.54
175.67	235.00	(l) Appropriation to railway development fund	435.00	563.54
53.44	110.00	(a) Repayment of loan and interest	310.00	281.82
		(b) Development works	125.00	145.00
		(c) Balance for Plan Finance	—	136.71
92.0%	91.8%	(m) Operating ratio	90.3%	87.7%
6.9%	7.2%	(n) Percentage of net revenues to capital at change	8 3%	10.9%

It will be noted that on its receipts side, 1991-92 revised receipts were higher than the budgeted receipts (and over 1590 crores higher than the 1990-91 receipts). This was due to the raising of fares and tariffs in 1991-92 to raise over Rs. 1300 crores in a full year (see Vol XXI p 382). The rates and fares if maintained at that level would not cover in 1992-93, according to the minister. Hence the budget for 1992-83 proposes to raise an additional Rs. 1366 to compensate for the sharp reduction of budgetary support through. a) raising freight in all commodities by 7.5 per cent except some essentials which go up by 4 per cent and 10 items (foodgrains, salt sugar, gur, tea, fruits and vegetables, edible oils, kerosene, diesal, chemicals and manures, organic manures, oil cakes, oil seeds, live stock and fodder, are completly exempted from any increase. p) raising minimum fares for AC first class sleeper and chair by 20 per cent. c) increasing fares for special trains like Rajdhani and Shatabdi. d) increasing more moderately the second class ordinary. e) revising minimum charge for parcels and luggage from Rs. 7 to Rs. 30, except for fresh fruits and and vegetables where the increase is Rs. 20. f) increasing second class express mail fares and g) increasing rather, sharply for first and second class monthly season ticket holders. The result is that the surplus for the year is increased to Rs. 563.54 crores from Rs. 436 crores in 1991-92. That year 1991-92, as shown in the table was a good year as seen in the fact that revenue earning traffic increased by 19 million tonnes over the target of 318 million tonnes, leading to setting the traffic target at 354 million tonnes for 1992-93 and the 5 percent growth in passenger traffic. The Plan outlay for 1992-93 proposed by the planning commission at Rs. 5450 crores (against the 1991-92 plan outlay of Rs. 5223 crores) was raised to Rs. 6700 crores on the pleading of the railway and is to be reviewed again as this is not adequate to meet the minimum Plan needs for 1992-93 in the development of essential infrastructure, gauge conversion and electrification, rolling stock and terminal capacity, so that the railway facilities are altered keeping pace with the demand for their service. 11 new projects and sections totalling 277 km are listed and 8 new lines are programmed to be opened in 1992-93 totalling 337 kms. Of 9600 km of track removal needed 2950 km renewals will be undertaken in 1992-93. To save diesal electrification is being stepped up, including Delhi-Madras, Jolarpet-Bangalore and Jolarpet--Salem-Erode. Among the 1553 km new electrification projects, is the Erode-Ernakulam-Cochin harbour route. The metro projects in 1992-93 include in Madras Beach-Luz MRTS project where after the Madras Beach Park Town stretches the Park Town - Chepauk lines will be completed in 1993. It is the replacement of outworn wagons, coaches and locomotives that is lagging and here the question of the priority for these renewals over opening new lines and the expansion of the Plan resources is raised. The 1992-93 railway budget has done its share in raising resources, its performance should continue to improve as in the previous year, particularly in keeping up the improvement in administration efficiency which the decline in the operating ratio for 1992-93 highlights. In particular the efficient execution of the Rs. 5700 crore annual plan should strengthen the case for higher plan allocation. The new technology being introduced, an improved safety record of the railways and shedding what can be done like manufacture of railway equipment and components and catering to the private sector should

further improve its efficiency. Finally the budget is progressive in exempting or keeping down the impact of increased rates - on essential goods and concentracting its increased fares on the well to do classes using the higher class facilities and the special express services. The budget will contribute to inflation in its 4 per cent hike in the coal tariffs, and the 7.5 per cent cost increase in other industrial inputs like steel, and the raw materials which go in to its manufacture and cement. The extent to which even this modest budget can be executed in full will depend on the pace of recovery of the economy; will make the attainment of the revenue earning tariff target of 354 million tonnes unattainable and to that extent disrupt the railway's functioning and finances in 1992-93. Hence in the end all of the railway plans and programmes depend on the rate of growth of the economy and the extent to which that will strengthen the Plan and Plan finances for the railways.

Economic Survey

The government's economic survey presented to Parliament on February 27, two days before the presentation of the union budget records the following data, actual for 1989-90, quick estimates for 1990-91 and forecasts for 1991-92.

TABLE I

	1989-90	1990-91	1991-92
1. GNP	6.1	5.8	2.5 to 3
2. GDP	6.0	5.6	2.5 to 3
3. Agricultural Production	2.1	2.6	0
4. Food grain production	0.6	3.0	-1.5
5. Incustrial production	8.6	8.5	-0.8 (April October 1991)
6. Electricity generation	10.8	7.8	1.0 - " -
7. Wholesale price index	9.1	12.1	12.8 (April 1991-Jan. 15, 1992)
8. Consumer price index for industrial workers	6.6	13.6	13. 1 (April-December 1991)
9. Money Supply M	19.4	14.9	14.9 (April-November
10. Imports at current prices (in Rs. crores)	25.4	22.0	7.0 (April-November 1991)
11. Imports at current prices (in US dollars)	9.1	13.2	-20.7 (April-November 1991)
12. Exports at current prices (in Rs. crores)	36.8	17.6	28.1 (- " -)
13. Exports at current prices (in US dollars)	19.0	9.1	-5.0 (- " -)
14. Foreign currency assets (in Rs. crores)	5787	4388	11410 (As on Feb.20, 1992 for 1991-92 and at end March for the past years)
15. Foreign current assets [in million US dollars]	3368	2736	4393 [- " -)

On GDP-GNP growth, there is a rather serious upward revision for 1989-90 and 1990-91 (see Vol p385) which will be commented on later under the subsection on the economy. The survey forecasts GDP growth for 1991-92 at around 2.5 to 3 per cent against the 4 per cent expected at the time of the budget presentation in July 1991-92 and the 3.5 per cent indicated to the World Bank in the government's November letter (and the 3 to 3.5 per cent also indicated to IMF). The survey attributes this forecasted poor performance of the economy to the deepening of the crisis which began in 1990-91, when the balance of payments reached crisis proportions by June 1991. A severe import squeeze introduced during 1990-91 to meet the foreign exchange shortage disrupted industrial production which began declining from early 1991-92, while inflation which has started accelerating reached a growth of 16.7 per cent in August 1991. The lower growth is attributed partly to the slow down in agriculture which in 1991-92 will be nil and partly because of the deceleration in industrial growth which is forecast at a negative below (—) 1 per cent. As will be noted later in the agricultural sub section, the kharif foodgrain crop in 1991 was lower than that of the previous year which is forecast at 1 per cent. Industrial production also had started slowing down in the second half of 1990-91 and recorded a decline at the start of 1991-92, with the industrial index for April-June 1991 being 2.3 per cent lower than that of the previous year, with the next quarter July-September recording a modest 0.5 per cent gain, but declining again in the next 1 month by 1 per cent which reflects the 0.9 per cent for April-November recorded in the table. Hence the year 1991-92 has been a year when the government was engaged in a fire fighting action as a result of which foreign exchange reserves reached Rs. 11,410 crores ($4.4 bilion) in the third week of February. The rate of inflation also declined from the 16.7 per cent in August 1991 to 11.8 per cent in February 1991. (The price sub section later, however refers to an annual rate of inflation of 12.5 per cent for the week ending January 25). Under these conditions, the Economic Survey states that the highest priority for the year is to correct the balance of payments deficit and contain inflation. The correction of BOP deficit is building up the confidence in the economy and to mobilise additional resources from the multilateral financial institutions, the Immunity schemes and India Development bonds. But the real and lasting solution to the BOP problem is improved export programmes for which 4 types of adjustment are to be made-which include reduction of the aggregate demand in the economy without hurting production, phasing down of import restrictions and reduction in the high level of import duties, simplification of trade procedures and development of capacity for adoption and innovation of industries to enable their competitiveness. The survey says that in the coming months the objective of fiscal policy will be to: a) stop further accumulation of public debt, b) reduce the level of subsidies in the economy and end open ended cross subsidies, c) to direct government expenditure to providing essential public services of a high quality and d) to restore government's capacity to make strategic investments in infrastructure and human resources. On trade policy, the final objective will be to achieve a degree of openness which will allow trade to balance domestic demand

and supply and permit full exploitation of the country's dynamic competitive advantage. On industrial policy, the aim is to make the attractiveness of different industries in terms of their rate of return on investment to be brought to the same level. The factors that discourage investment such as price and distribution controls are to be dismantled. There is also a need to establish a credible safety net to protect workers against the risks of company failures and make their compensation independent of sick firms. The Narasimhan committee report is to be used as the starting point of financial reforms directed to improving financial strength of the banks and to cover directed credit, adequacy of reserves, methods of prudential regulation and stock market reforms. The survey identifies 7 major areas for reforms, namely the areas of fiscal, trade, industrial, financial, agricultural, poverty alleviation and human resource politics. Improved fiscal balance will help eliminate inflationary pressure. Trade policy reform will produce a tariff system which while protecting domestic industry, will not distort relative prices Industrial policy reform will remove price and distribution control as mentioned earlier and help develop a strategy to make Indian industry competitive. Credible food security system should be maintained. Better targetting of poverty alleviation programme to the worst affected sections to be aimed at. Stern administrative means against hoarders and black marketeers and special emphasis on sound and economic uplift of women are proposed. In agriculture the survey proposes to increase investment and the full potential of the limited land - water resource should be realised. The need for a continuous improvement in technology of production, storage and marketing is underlined, along with special efforts to improve dry land agriculture. The credit system which has suffered from the loan waiver scheme of 1989-90 has to be revamped. The current year's foodgrain production is estimated at 167.5 to 173.5 million tonnes, oil seeds 17 to 17.5 million tonnes, pulses above last year's 14.1 million tonne. The survey is mainly an account of how the economy is being restructured and the various remedies envisaged against the short term problems faced by the economy. Its conclusion is that though the economic policies are based on tackling the immediate crisis, they are based on a vision of the future and the promise of a better life for the people. This is not obvious because the survey does not make clear where the economy is heading and at what pace it is so heading, particularly for the price for integrating the Indian economy with the global economy, involving the sacrifice of equity related concerns in areas like food subsidy - the public distribution system, anti-poverty programmes and priority sector lending. Further the pace of the reform should be one that is politically feasible. From what is happening in Parliament over the rate of implementation of the reform package, this is not obvious.

Plan

After a deal of discussion and negotiations, the Planning Commission has recommended the 1992-93 annual Plan outlay at Rs. 77835 crores with Rs. 48370 crores for the union and Rs. 29463 crores for the states. This gives 62 per cent of the total allocation to the union and 38 per cent to the state (as in the current year). The Union Plan has been raised by 12.5 per cent and that of the state by 8 per cent. At this stage 3 points may be noted. The union sector plan outlay total conforms to the 1992-93 budget figure : it is the state's plan data which needs further study. Second, the recommendations for the states are made on the optimistic assumption that unlike this year when their expenditure is likely to be only 35 per cent against the 38 per cent allocated, in 1992-93 they will spend their full 38 per cent. To remove their doubt, the commission has increased the union assistance to the state by 9·5 per cent (to Rs. 15949 crores against the current year's level of Rs: 14710 crores), and reduced the budgetary support to the union sector by 6.5 per cent. As usual the reduction falls mainly on the social sector, with the allocation for rural development and employment generation proposed to be reduced. Third, given the fact that the year will end at an inflation rates of 13-14 per cent, there is no increase in the annual plan in real terms, the reduction being heavier in the case of the states sector.

Price

Inflation during January was 1.2 per cent, with the whole sale price index standing at 214.5 for the week ended January 25. The annual rate of inflation (on a point to point basis) has stabilised at 12.5 per cent. Groupwise, the index of primary products declined by 0.3 per cent, with jowar, arahar, rice, bajra and ragi showing a 1 to 2 per cent increase. The index for non food articles declined by 0.8 per cent, with increased charges in the feed, power, light and lubricant group. RBI returns show that money supply increased at 13.3 per cent during April-December 1991 compared to 10.1 per cent during the 9 months of the previous year. This was compensated by the lower RBI credit to government during this period, April-December 1991, at Rs 9800 crores against Rs. 13,006 crores during the previous year's 9 months. IDBI points out that despite RBI's corrective measures, inflationary pressures increased in the period. The consumer price index during November on a point to point basis was 14 per cent. Thus the inflation situation has become endemic and it looks as if we will have to live with it during the coming year, unless the government takes action to counter inflationary expectations.

Stocks Exchanges

The major event in the stock exchange area in February was the grant of statutory status at last to the Securities and Exchange Board of India (SEBI) as an autonomous body to provide investor protection, to promote the development of the capital market and simultaneously regulate the functioning of the Securities Market. This action was overdue, coming as it does 7 years after it was recommended and 4 years after it was established as a non statutory body and being promised statutory status by 3 governments in their annual budget estimates. The question that must be answered is why was this long delay when everything else was being rushed through. The Board and its powers are urgently needed. First, it is needed to give the investors, especially the small investors coming to the market in large droves, attracted by the sky rocketing share prices which have been referred to in every issue of the Bulletin and will be in this too. Second, the Board should put into effect the draft code on takeovers. which are now shrouded in secrecy and mystery. Here SEBI can bring some much needed transparency to these transactions. And finally the Board should help to check insider trading, which is rampant here but banned in other countries. It should also help to break up the brokers hold over exchanges. There are however a couple of questions that need to be faced. First, if SEBI is to have a say in granting consent to capital issues, so that there is a simple body for the healthy functioning of the capital market, should not the office of the controller of capital issues be abolished, and some of the functions of the company law board transferred to SEBI. A second question relates to a statement of the chairman of SEBI that the statute "appears to reduce the effectiveness of SEBI". What are the limitations imposed on SEBI by the ordinance and can they be removed when the final act is passed? The chairman has proposed opening up of the India's capital market for overseas investment and convertibility of the Rupee after improving capital market operations to bring them up to international standards. This is an important suggestion which will increase the country's foreign exchange resources in non debt creating flows against the pile up of our external debt exceeding today $70 billion. The other event in November is the extremely bullish conditions under which the equities in the Bombay Stock Exchange touched the all time high of 2762 by February 21. The government decision to throw open the mutual fund sector to the private sector feed, this rush. Third, with the closing of the two schemes, Foreign Exchange Remittances scheme and the Indian Development Bonds on January 31, the havala premium fell by 10 per cent. Forward badla in the Bombay exchange has been banned as of February 3. RBI has also on February 20 suspended forward sales of the US dollar to authorised dealers, bringing speculative activities to a stand still, despite a heavy demand for spot dollar in the market, RBI explains this as following the substantial improvement in the country's foreign exchange (covering two and a half months imports) which enables it to meet all genuine requirements. This has set off stock exchange speculation about the possibility of a back door devaluation firmly denied by government, and the change of the status of the Rupee to a partially convertible currency, also denied by government.

Economy

A major issue concerning the economy in February was the release of CSO quick estimates for 1990-91 which shows: a) GDP growth in real terms going up by 5.6 per cent, against 6 per cent for the previous year. The quick estimates for 1989-90 was reported at 5.2 per cent (see Vol XXI p161), and now the provisional estimate of GDP growth for that year shows a rise to 6 per cent: b) per capita income during the year increased by 3.7 per cent: c) gross savings declined by 0.4 per cent to 21.9 per cent. The net dissaving of the public sector registered a fall of 33.5 per cent, the net saving of the private corporate sector increased by 11.6 per cent and the household sector by 22 per cent : d) all sectors of the economy contributed to GDP growth; agriculture by 4.3 per cent against the previous year's 2.6 per cent, foodgrain production increased by 3 per cent from 171.04 million tonnes in 1989-90 to 176.23 million tonnes in 1990-91 : e) gross capital formation at constant prices increased from 22.9 per cent in 1989-90 to 23.6 per cent in 1990-91 : f) fixed capital formation increased by 21.2 per cent : g) gross domestic saving at current prices declined to 21.9 per cent from 22.3 per cent in the previous year: h) expenditure on all items both at current and constant prices increased in 1990-91 compared to the previous year. There are 2 issues on the above CSO summary which need attention. The first is the high growth of 5.6 per cent in GDP recorded in 1990-91 and the provisional estimate of 6 per cent in 1989-90. On the 1990-91 GDP growth does not reflect the serious crisis gripping the economy the Gulf crisis which led RBI in its Annual Report for 1990-91 to forecast a growth rate of 3 per cent for 1991-92. Does this mean that the economy has suffered a more serious decline from the reform measures undertaken from 1991-92 than from the 1989-90 crises. Further, announced provisional growth rate for 1989-90 points to the possibility of the rates for 1991-92 also being pushed up from the quick estimate of 5.6 per cent to 6 per cent and above. The CSO hiked the GDP growth rates for 1989-90 to allow the government greater manoeuverability in respect of the deficit financing, because with the changed base the government can run up a larger deficit than forecast in the year' budget. Even for 1992-93, the government can provide for a wider uncovered budgetary gap. The 5 per cent limit on fiscal deficit for 1992-93 can be attained with a higher provisional estimate of GDP growth for 1990-92 which could come about in next year's report. The other issue raised in the CSO summary is the alarming record of the net dissaving of the public sector in 1990-91 which reduces the commitment given in August 1991 to IMF by the Finance Minister to a mockery (see Vol XXII p66). The public sector has a deficit on GDP which has risen from Rs. 13817 crores in 1989-90 to Rs. 19385 crores in 1990-91, due mainly to the large dissaving of public administration and consumption of fixed capital. How is the plan to be executed if there is this dissaving in the public sector which has to make a positive contribution to he plan resources. So far all talk about economy in public administration has remained just talk and instead every government has increased staff expenses. The only way that the public sector dissaving can be stopped is by control of DAs and the various allowances and not simply a cut in the staff. While the present government is doing a good job on structural adjustment, it has not yet moved on wage related matters and this is a must. The result of all this is to give an air of unreality to India's commitments to IMF. These commitments are based for this year on: a) the GDP grant being 3 to 3.5 per cent, whereas it is likely to be less than 2 per cent: b) inflation will be 9 per cent whereas it has soared to over 13 per cent: and c) foreign exchange reserves will be $2.5 billion by March 31, but are double that, even leaving out IDB income. Under these conditions, is the 1992-93 GDP growth projections of 4 per cent and inflation down to 6 percent credible?. The scenario should take account of the fact of industrial stagnation; after years of industrial expansion exports are still sluggish despite devaluation and eximp scrips, and budget estimates of income and expenditure have gone wrong so that government deficits are increasing. To meet IMF money supply targets, RBI has squeezed the private sector, hitt ng industrial production, consumer credit has been cut reducing sharply the demands for consumer durables, and small industries are particularly bad hit. And yet monetary growth is swelling as noted earlier under the prices sub sector. The excessive fiscal stringency has hurt economic growth and not curbed inflation, it has engendered run away fiscal credit to government which is a mark of fiscal prodigality, fuelled money supply, leading to savage curbs on industry. Is this the root of the problem facing the economy - that industry is

fuelling inflation. IMF has mistakenly focussed on fiscal deficit, whereas the real villian is net RBI credit to government -revenue and capital deficit fuelled by RBI credit. What needs to be cut is not the fiscal deficit but the net RBI credit to government. Other developments in the economy in February to be noted include the government report that the two schemes to attract foreign exchange, the foreign exchange immunity scheme has attracted $800 million and the IDB $ 1500 million totalling 2300 million : government announced that it has disinvested its shares in Mahanaga Telpha Nigam; the industry ministry reports that since the introduction of the new industrial policy foreign investments have increased from Rs. 45 crores in April-December 1990 to Rs. 412.79 crores in April-December 1991, the programmes for foreign equity participation being Rs 534.10 crores; the government has set up the National Renewal fund with an initial capital of Rs. 200 crores - to provide a social security net to the labour force in both the public and private sector; India and Bangladesh have agreed on a comprehensive approach on sharing waters of the 4 main rivers-in Ganga, Meghna, Teesta and Brahmaputra and to exchange information on inflow of the rivers during the dry period; the government announced in mid November to compensate for the falling value of the Rupee - (which is its capacity to purchase a smaller bundle of goods) the poverty line has been raised from Rs. 6,400 to Rs. 11,060 and that it will come into effect during the VIII Plan for beneficiaries of IRDP; in this connection, the Ministry of (Rural) Development states that after a slow start, the pace of rural development has picked up and will be given fresh impetus during the VIII Plan-through creation of 10 million new jobs yearly and area growth programmes linking development with local features. One rather disturbing development reported by the Indian Express on February 28, is a fresh set of 23 Conditionalities laid down by the World Bank for the release of the second tranche's structural loan of $300 million. The substance of the 25 conditionalities will have to await their becoming official and their presentation to Parliament. But on the assumption that they have been made certain basic queries are raised now: a) taken together with the commitments made to IMF (see Vol XXIIIp66 & 67), these 25 conditionalities laid down by the World Bank are a serious disruption of the country's responsibility for managing its economic affairs: b) the World Bank's conditionalities break the tradition of confidentiality in the dealings of the Bank with the customer: c) they seem to demand a wholesale and speedy change in the economy with a deadline April-May 1992 - which cannot be kept: d) the conditionalities are not restricted to Bank assisted projects but cover the entire economy: e) all this makes the government's task of reforming the economy difficult to the point of being impossible given the nature of the reasoned opposition that it is already facing. It is really to be regretted that the government has placed the country at the mercy of the World Bank and is giving in to obvious pressures from it and the IMF. As a result of persistent demand in both houses of Parliament the government placed before Parliament the letter written by the finance minister to the President of the World Bank on February 11 which contains the broad policy initiatives taken by the government. The following is set forth within the minister's letter: a) the limiting of the fiscal deficit to 5 per cent and inflation to 7.5 per cent in 1991-92 and to 6.5 per cent by 1995-

96 and reducing the external current account deficit from 3.5 per cent of GDP in 1990-91 to 2.7 per cent in 1991-92 and 1.5 per cent in 1995-96 are mentioned: b) there would be further liberalisation of trade policy in the new fiscal year, removing import restrictions as soon as possible, integrating the Ex imp scrip scheme with OGL as soon as feasible before mid 1995, and removal of export licencing and minimum export prices: c) controls on imports are to be drastically reduced and actual user conditions abolished: d) there will be shift of more intermediate goods for import against Ex imp scrip or OGL and capital goods corresponding to 50 per cent of domestic production would be made freely importable under Ex-imp scrip or OGL by May 1992 and the import of all unlisted capital goods permitted with the use of Ex imp scrip by April this year: e) customs duties will be reduced progressively over the next few years: f) on industrial policy, what has been put into effect is referred to, including freeing industries from price and distribution control: g) an inter-ministerial working group will review existing laws governing labour relations, state and local governments role in industrial restructuring, regulations following transfer of land and on this basis a programme of reforms will be recommended: h) restructuring and closing unviable units in the public sector by May 1992 is referred to: finally i) the Narasimhan committee report on financial reform is referred to, along with the government going in for realistic interest rates. It may be noted that there is nothing in this letter which is new and not been placed before or approved by Parliament. The Indian Express however, states that the full documentation which includes the letter from the Bank dated Feb. 13 which contains the objectionable material referred to earlier should be placed before Parliament. Accordingly on February 27 this was done and the documents were placed in the library along with the statement that the 25 conditionalities of the World Bank are part of its report to its governing body, by which India is not bound.

Industry

CSO reports that industrial production from April-October 1991 declined by 0.8 per cent compared to the positive growth rate of 3 3 per cent in that period in 1990-91. In October 1991 industrial production fell by 0.4 per cent compared to October 1990, manufactures is down 1.9 per cent indicating an industrial recession. Automobiles, consumer durables, textiles and capital goods have been hard hit, with producers cutting back production and retrenching staff. Inventories are piling up. Is there a recession? A recession is the result of a slow down in aggregate demand and a decline in business expectations. But the Indian production slow down is due to the savage credit curbs and import restrictions plus price hikes on some key consumer durables. There is a liquidity overhang in the economy which keeps demand increasing and causing galloping inflation so there has to be a tight hold on both money supply and imports. Government reports a sharp fall in the rate of growth of the small scale sector from 8 per cent in 1990-91 to 2 per cent in 1991-92. This is serious for the sector produces Rs. 150,000 crores of goods every year and so the decline this year will reduce GDP growth. In February, government issued guidelines for setting up mutual funds in the private and joint sectors, allowing them to operate both closed end (for which Rs. 23 crores each should be raised) and open end schemes for which Rs. 50 crores are to be raised. In February government announced that it has cleared 18 major German proposals including those from Ben, Urgi, Msanmona Domas, Banmaschina. Government also announces that it has rationalised and simplified the advance licensing scheme. The National Textile Corporation states that it has sought government permission to close 14 units which have no viability. This is a sad move.

Public Sector Enterprises

The V. Krishnamurthy committee on the public sector units has recommended that the government should not hold more than 40 per cent equity in the units. It also does not approve of the present system of disinvestment of profit making units and recommends that the government should go direct to the market to raise the needed resources.

National Production Front

Steel

The steel scene in February presents a mixed picture. The most important development was on February 28, it was announced that steel has been removed from the list of industries reserved for the public sector. Further on the one hand SAIL reports that its output increased by 11 per cent during the 10 months April-January 1991-92, with hot metal touching 8.79 million tonnes and saleable steel 6.55 million tonnes. On the other hand, the secondary steel sector records a negative growth in 1991-92, with a production shortfall of 1 million tonnes. This is due to shortage of steel melting scraps, resulting in record price hikes of indigenous scrap and sponge iron. This is despite the steel decontrol along with reduced customs duties on various inputs. For the current year, there will be import of 5 to 7 lakh tonnes of steel melting scraps against the demand for 25 lakh tonnes of imported scrap.

Crude

The February report on crude is disturbing. Crude production will touch a low 26 million tonnes in 1992-93 against the target of 30 million tonnes. On the other hand, oil consumption which was 55 million tonnes in 1990-91 grew by 4.5 per cent this year, 1991-92, involving an increase of the foreign exchange outgo from Rs. 12,000 crores in 1990-91 to Rs. 13,000 crores in 1991-92. At this rate of increase, oil consumption is expected to be 79 million tonnes in 1996-97 and 103 million tonnes in 2001. We do not have the foreign exchange for this rate of consumption and so the need to push conservation and cut consumption is inescapable. ONGC reports increased exploration in Tripura and striking oil in 2 structures in Bombay High. This will not really meet the growing demand just referred to. The government reports that 3 refineries each with a refining capacity of 6 million tonnes is to be set up during the VIII Plan in Central, East and West India, taking India's refining capacity to 90 million tonnes by 2000 AD against a demand of 100 million tonnes at that time.

Coal

In view of the ministry's admission that because of its limited coal washeries to be set up not being able to wash inferior grade coking and non coking coal, the ministry has developed 6 point strategy to ensure regular and quality supplies and develop consumer acceptance by the various consuming group. The strategy covers the entire sales and marketing process covering different modes of transportation, linkages covering both core and non core sector consumers: How far this will infact result in delivery of quality coal to the consumers remain doubtful because of the inadequate infrastructure referred to. The government has asked CIL to liquidate immediate 20 million tonnes of non coking pit head stocks to help relieve the shortage of coal in the market. This is needed in any case as those stocks have been accumulating near the collieries over the years. This will help relieve the shortage of coal in the consuming areas and also bring down the price. But this does not ensure quality coal.

Non Ferrous

A 2000 crore 100 per cent export oriented alumina plant is to be set up in the Gandhamardan hills in Orissa, far away from the controversial site near the temple. It will have I million tonne capacity and be operated by the Union government's BALCO.

Agriculture Production

The news in February on the food front is bad. It is now certain that the current kharif production will fall 9 million tonnes short of the target of 103 million tonnes, which means also it would be 5 million tonnes less than the last kharif output. The rice supply will be affected but not as much as that of wheat, as West Bengal and AP have had sufficient rain fall and the major contribution to the Union rice pool, Punjab, is less dependent on rainfall. Even so, the rice supply may go down by more than 4 million tonnes. The real crisis is in regard to wheat, whose price in the market is way above the procurement price of Rs. 245 per quintal, making wheat procurement difficult. Infact procurement is proceeding very slowly. The Union Food ministry estimates that the wheat crisis will depend from April 1 with the buffer stock falling to an unprecedented I month's supply instead of the norm of 4 months supply. Imports are being talked about and the 1 million tonne is still nowhere in sight. The government reports an 'inexplicable" increase in the offtake of wheat and rice from the PDS, the sale of wheat through the ration shops increasing by 1.71 million tonnes during April-October 1991 compared to the same period in 1990. There is need to increase farm output, particularly foodgrains and it is to this that the country's development strategy should concentrate. The other action needed is to buy and import urgently 1 million tonnes of wheat as a start which has to be increased. The government reports to Parliament that foodgrains stocks on February 1 was 14.5 million tonnes.

Exports and BOP

On the positive side the trade gap has declined by Rs. 4624 crores in 9 months April-December compared to the previous year due to the import compression. In dollar terms also the deficit has contracted by $3204 million. Overall exports in rupee terms have increased by 31 per cent, in dollar terms they have fallen from $13,229.28 million in the 9 months in 1990-91 to $12,643,30 million in April-December 1991-92. One important negative feature has been the loss of the Rupee trade of the Soviet market, made up to some extent by increased exports to the general currency area. India's exports excluding the former Soviet Union amounted to Rs. 17,0007 crores during April-September 1991 compared to Rs. 12066 crores a year ago, rising by 41 per cent. A RBI study points out that there is a long term unfavourable trade balance for India, the export earnings being far below the imports during the last 20 years. The export sector will

have to grow by over 9 per cent in the last 2 months of the year in dollar terms to make up for the negative growth in the past 10 months. The Ex Imp scrip premium has fallen from 45 per cent during its launch in July to 17 per cent in February. This fall which has hit importers and traders is in some way a correction : the government's shifting items in and out of the OGL list (4 times in the last 8 months). Will the savings be stabilised at the present level ? Should the scrip be replaced by limited convertibility of the Rupee ? These are issues on the horizon. There are serious and complex problems in the foreign trade/BOP field which cannot be solved in a hurry. Some of them include, the Dunkel proposal (see last volume XXII p75), the threat of retaliatory action under section 301 of the US Trade Act, the IMF and World Bank pressure and the whole policy of structural reform and adjustment. What is needed is to give the government time and support in tackling these multifarious problems. On individual items, the government has finalised a five pronged strategy to attain an export of Rs. 1500 crores of marine products this year, against last year's Rs. 890 crores.

Loans and Aid

A new element in the area of loans is the role of the International Finance Corporation (IFC), the private sector lending division of the World Bank, in making loan to India's private sector. It is estimated that within the next 2 years, IFC will provide funds to the tune of $700-800 million for financing various private sector projetcs. At present, India has the second largest (after Mexico) port folio expansion with $420 million as loan and $80 million in equity. Its investment in India include TISCO, Haldia petroleum, Arvind Mills and Nippon Demo Ispat. IFC announced in February that it has cleared the proposal for equity participation in IFGL Refractories of the order of Rs. 130.08 lakhs. The massive entry of IFC into India's private sector is in accordance with the reformed policy to encourage the private sector. However the policy and details need reflection. The Asian Development Bank will be lending $250 millions to reform the country's transport sector. The World Bank plans to lend $850 million to ONGC for oil and gas development.

International

UNCTAD

The four yearly United National Conference on Trade and Development (UNCTAD) VIII opened on February 10 at Cartagana, Colombia. At the opening meeting the UN Secretary General pointed out that poverty was the main cause of political violence, the world over, migratory flows, and the spread of epidemic disease. International debt had hit the poorest countries hardest and was the most urgent issue facing the international community. UNCTAD secretary general stated that freedom was its foundation of a dynamic and just world order and that people living in poverty and deprivation are not free. 210 delegates from more than 160 countries are attending the conference. The Future role and responsibilites of UNCTAD in the fast changing global environment, the concept of good management and the need for sustainable development are dominating the conference. It has suggested that institutional reforms including a new international partnership for development, enhancing the participation of developing countries in the world economy, examination and evaluation of trends and issues in the world economy and cooperation for sustainable development should be brought about in its functioning. It has cautioned that any final agreement at the ongoing GATT negotiations on global trade which fails to take fully into account the development dimension will be incompatable with the goal of achieving a positive and balanced outcome. Such an outcome requires genuine efforts to restore outstanding political problems which exist in practically every negotiating area from market access to institutional issues. UNCTAD is reported to have reached agreement on all issues such as resources for development, international trade, strengthening of technology and commodities and strengthening the technology. This consensus was arrived at by the main committee of the conference. In its concluding session, industrial nations have pledged to increase their aid to the 50 least development countries, in addition to their aid to the former communist countries. It decided to take new steps to overcome poverty and to do more to liberalise world trade. There was also agreement on the reform of UNCTAD. There was disagreement on dealing with the debt issues, with the US opposing the decision to set up an expert body to deal with the debt, as it wants it to be dealt on a case by case basis.

The Dunkel Draft

Government states that the proposals made by Arthur Dunkel on various issues before the Uruguay round form the basis for further negotiations and is not a 'take it or leave it package' as suggested in an earlier issue. The Dunkel proposals are aimed at narrowing down the differences in certain areas like intellectual property rights, agriculture and textiles. The proposals represent a broad consensus among the 103 participating countries. Accordingly the government states that it is examining the programmes to set forth India's position. India has already expressed its concern in the area of pharmaceuticals and agro chemicals, which endeavours to introduce compulsory licensing in the areas of food, pharmaceuticals and agro chemicals in the agreed texts, in order to avoid monopoly by the patent holder of licenses. In the area of trade related intellectual property rights, in respect of food, chemicals, pharmaceuticals and bio.. technological products, India can delay the application of the obligation till January 2003, provided the countries concerned provide means by whose application for patents for such investors can be filed after 1-1-1993 the date of its entry into force. In textiles, under the Dunkel proposal the multifibre agreement will be phased out during the 10 year period 1993-2002. On January, 2113, textiles and clothing sector would be integrated into GATT, with all restrictions being eliminated. The 10 year period will be divided into 3 stages of 3.4. India and other developing countries want the integration in the first phase and not at the final phase. The government realises that developing countries have very little negotiating force and the interests of the countries are varied. On the US threat to impose trade sanctions on India under Special 301 unless it signs the Paris convention, the government seems confident of being able to maintain its position. Bilateral negotiations are to be held and the issues will be resolved. However there is a large body of opinion in the country which believes that the acceptanace of the Dunkel proposals will result in industrial decline, massive underemployment, and sky rocketing of agricultural prices. There is a demand for a full open debate on

the proposals, including its most controversial proposal which is the establishment of a multilateral trade organisation which in collaboration with the World Bank and the IMF is to review India's trade policies. Some established economists led by Babatosh Dutta want an open debate before the government accepts the Dunkel Draft. This should be conceded. GATT has come out with a further proposal that increased trade and income will make it possible to protect the environment better. Ecologists however are opposed to this thesis. In fact GATT is opposed to the policy advocating environmental policies such as clean companies' which will adopt unilateral trade.measures such as import ban.

UN Security Council Summit

The Heads of government of the 15 members of the Security Council met at the end of January with the Prime Minister of Britain in the chair and adopted an international declaration which sets forth the broad agenda for the UN following the disolution of the USSR. The main thrust is that there is need for an innovative approach to the continuing problems of peace, arm control, disarmament, nuclear non proliferation, and human rights and economic development. The UN now should undertake preventive action in areas of potential conflict and war. Russia which has taken the place of the Soviet Union in the Security Council has prepared a new system of a global defence against missile attack. This is welcome and should be pursued.

* * * * *

II. Agricultural Development in Tamil Nadu

Paddy and other crops

Unlike the farm front problems at the national level referred to earlier, the farmers in the state are doing well this year. They have covered 21.63 lakh hectares both kuruvai and samba paddy crop, with the scope of covering another 4 lakh hectares under the next navarai crop. The 30 lakh hectares target may not be attained, but the farmers are likely to bring 28 lakh hectares under paddy - after 6 years. The farmers report above normal yield from the main samba paddy crop including the dry farmers of Pudukottai district reporting a yield of 5 tonnes per hectare which will be the average of the Thanjavur districts farmers. Actually the paddy yield in Nagapattinam and Thanjavur districts has been the highest at 5.6 - 6 tonnes per hectare that the farmers have obtained. The target set for themselves is 100 lakh tonnes, which again may not be reached, but they will produce above 90 lakh tonnes. The coverage by the farmers under millets and pulses, is equally good. They have brought 12.55 lakh hectares under millets by early February, against the target of 10 lakh hectares. With sufficient water for irrigation in tanks and reservoirs, the farmers will respond well to the department plan for a summer programme. They will cover under millets 4 lakh hectares, under Navarai as earlier referred to, 3.38 lakh hectares under pulses and 50,000 hectares under groundnut and cotton each-12,500 hectares under gingelly. The summer Navarai farmers are concentrated in the districts of North Arcot - Ambedkar, Tiruvannamalai Sambuvaraya, South Arcot and Chingleput MGR. Their production is expected to touch 84.10 lakh tonnes against last year's target of

75.64 lakh tonnes. They will be producing 85.25 lakh tonnes of rice, 18 lakh tonnes of millets and 7.2 lakh tonnes of pulses, making a total production of 90.45 lakh tonnes, which would be a record for the state. With the harvest of the main paddy crops having reached the peak in the delta, the civil supplies department has already procured 9 lakh tonnes of paddy (from the composite Thanjavur districts). With the lifting of the traders levy demanded by paddy farmers, the target of 14 lakh tonnes of procurement will be realised. This record performance may affect the plan assistance of the state for the next year. There is no guarantee that this good performance and its raising the state domestic product, which is the yardstick determining plan assistance. This programme is quite unlikely to be repeated by the farmers next year, as that will be determined by rainfall and water for irrigation at that time.

NABARD Credit Plan

Related to the above encouraging picture of the farm sector in the state, is the NABARD's new credit plan for 1992-93 to 1996-97 for the state's agriculture. The plan for 1992-93 envisages a total bank credit of Rs. 2258 crores for rural development (comprising Rs. 1104 crores medium term loan and Rs. 1154 crores short term loan, the non farm sector receiving 67 per cent of credit, animal husbandry 17 per cent and minor irrigation 5 per cent). The plan is based on the assessment of existing and likely infrastructure linkages, strength of the banking institution and capabilities. NABARD has 9 district development offices in the state, at Cuddalore, Dharmapuri, Salem, Erode, Dindigul, Trichy,Thanjavur, Ramanathapuram and Tirunelveli which covers all areas and where the local banks will be servicing small, marginal and medium level farmers effectively.

Research results

Among the 22 research reports recorded in February, five groups are of special interest to the state's farmers. First, a group of 4 reports on rice research are of interest to the state's vast area of paddy farmers. AP agricultural university reports developing 2 short duration varieties of paddy with 115 days duration - WGL 18011-15 and WGL 20471 which are heavy yielders and suited to our wet regions. The agricultural college and research institute, Madurai reports that it has developed the rice - Azolla dual culture under which azolla is grown along with paddy and is responsible for biological fixation by azolla in symbiotic association with Annabaena as a contribuant of nitrogen to the rice crop: the national dairy institute, Karnal also reports that using cyano bacteria for rice cultivation to provide the crop with biologically fixed nitrogen helps the small and marginal farmer who cannot afford the chemical fertiliser and saves him Rs. 100 per hectare on the use of this popular fertiliser, finally the Kerala Agricultural University reports on the results of its experiment to control the brown plant hopper menace in rice which shows that selecting the right insecticides and its correct dosage and use controls the pest A second group of reports is of help to farmers growing millets and other crops. The agricultural college and research institute, Madurai reports on its studies to check witch weed in Sorghum involving following a proper crop rotation such as sorghum followed by cotton, sunflower, castor, groundnut, cowpea of soyabean, applying a high dose of nitrogenous fertilisers at 100 kg per hectare and maintenance of wet condi-

tions. UAS, Dharwad reports on its results to control dewny mildew in sunflower through destruction of all affected plants and spraying ridomil MZ 72 solution at 600 litres per hectare. TNAU reports on the use of 420 spirillum, a symbolic bacteria found in rhizosphere of crop plants. This simple technique will help the farmer to increase his millets output - sorghum, ragi, maize by 10 percent· UAS station at Ullal, Karnataka, reports on the use of a simple technology for rejuvenating low yielding and old cashew nut trees by top working, starting with identifying trees yielding less than 2 kg of nuts or plants which are 10 to 25 years old, cutting them to a short stump and applying a part of 30gof BHC and Bitox. In 40 days in the stump new sprouts appear, which can be used as graft. On, sugarcane, one report from TNAU from its Cuddalore station is that by spraying some chemicals the cane yield is boosted, its sucrose content increased and ripening hastened, and a second report from the same Cuddalore station advices the sugarcane farmer to apply phosphatic fertiliser to the crop to help it grow and increase the phosphate status in the soil which involves the use of phosphatic bacteria biofertiliser which is both effective and economical : TIHA, Bangalore reports developing an integrated pest management strategy, which is simple and cheap, as it uses the bold seeded mustard seed, Brassica Jundea to ward off and control cabbage pests. A fourth group of reports refer to protecting fruits and vegetables, the college of agriculture, Hyderabad reports on use of fenvaleterat to control the leaf eating caterpillar. AP agricultural university reports that Nematode pests in mushroom can be controlled by growing and marketing a good mushroom for which 5 simple steps are suggested : the agricultural research station, Kovilpatti reports on the results of its experiments on rainfed cotton and the means of evaluating the right dose of magnesium to increase its yield which the cotton farmer can follow: the agricultural college, Kumalar - advices on the use of tree, Pimaram, to increase fodder production in dry regions and in another experiment it shows that zinc deficiency in crops can be simply corrected by applying 10 kg per hectare of zinc sulphate : the regional agricultural research station at Guntur, reports on the effective use of lady bird beetles as insects predators. Finally, the animal and poultry farmer will be helped with two reports: the Kumaraperumal Farm Science Centre, Trichy reports on the effectiveness of the use of synthetic pyrethrod as a means of controlling flea infection in goats : the lam farm, Guntur advices that egg laying hens should be kept together in a flock and the others culled. This both checks diseases, inflection and losses following from it also creates more space, feed and water for the others.

Plantation Crops

1992 is both a difficult and challenging year for the plantation crops-57 per cent of tea exports, 58 per cent of coffee exports, 61 per cent of pepper exports and 46 per cent of cardamom exports. How and who will replace this lucrative customer? The challenging problem is the sharp increase in supply. Tea production in 1991 was a record 791 million kg, which was higher than the year's target of 735 million kg and 1990 yield of 714 million kg. South Indian tea gardens were the leading contributor to the high production at 185 million kg (which was 14.5 million kg above 1991) and followed by North Indian production of 556.5 million kg' increasing by 12 million kg. In 1991 the overall supply-demand gap will be bridged and the fears of a fall in tea prices has been averted. The Tea Board announces a government scheme to subsidise to the tune of Rs. 130 lakhs, the change over from farm crops grown in the Nilgiris over 900 hectares by tea gardens, to growing less in order to meet the target for 2000. *Coffee* is facing another bumper production year 1991-92 at a high 210,000 tonnes against output of 171,000 tonnes - 1990-91. Coffee exports this year was 66,454 tonnes valued at Rs. 214.9 crores against the export of 65,357 tonnes worth Rs. 180.77 crores in 1990-91. At long last, the government of Karnataka has reduced the purchase tax on coffee grown in Karnataka from 13 per cent to 7.5 per cent which prevails in the neighbouring states. The world price of coffee is now looking up compared to 1990. *Rubber* is facing an even higher increase in 1990-91 at 329,615 tonnes compared to 297,300 tonnes in 1989-90. This increasing production trend will further in 1991-92 at 375,000 tonnes, which is some 10,000 tonnes above the year's target. Arising from this and the excess imports of last year, the government has allowed the export of 14,000 tonnes and is aiming at exporting 20,000 tonnes. Rubber prices have been stagnant and are begining to fall and so the demand from Indonesia and Malaysia for Indian rubber is emerging strong and will counter this falling trend. *Cardamom* output in 1990-91 was a high 4750 tonnes compared to 3,100 tonnes in 1989-90. For 1991-92 the output is forecast at the same 4700 tonnes as during the previous year. There was a slight improvement in exports from 127 tonnes to 224 tonnes and strengthening of prices which brought in Rs. 6 crores compared to Rs. 4.09 crores last year. *Pepper* production also is expected to rise to 60,000 tonnes in 1991-92 from the previous year's 52,000 tonnes. Export of pepper till October was 8875 tonnes valued at Rs. 34.49 crores compared to 1864 tonnes exported last year at Rs. 62.16 crores. Here again there is a tendency for prices to fall, which is contrary to the inflationary trend of the economy. The supply side in the plantation crop is important.

* * *

III. Industrial Development of Tamil Nadu

February saw the usual plus and minus points with regard to Tamil Nadu's Industrialisation.

On the plus side, *first* as forecast in Vol XXI p. 564, *Standard Motors* (SMPL) commenced operation at its Perungalathur factory on February 3, after being closed for 3 years. The factory at the initial stages will be working 2 or 4 days a week depending on the production facility and absorb 2000 workers during this staggered period of working. Each worker has been given Rs. 5000 towards his dues. The company is discontinuing the luxury car, Standard 2000, and will concentrate on manufacturing the light commercial vehicle which has an annual capacity of 6000 vehicles. *Second*, the reopening of *B&C Mills* from April 13 has been announced and a 3 member committee has been formed, to go into all the issues including finance and modernisation and make recommendations to the management. *Third*, two cent percent export oriented units - *Rajapalayam spintext and Sri Ramco's spinners*, Rajapalayam which are to

referred to as the fifth negative item under Tamil Nadu Industrialisation in the last issue. *Fifth*, as noted in the last issue, the pig iron project jointly *Planned by TISCO and DC Kothari group* is taking shape. The board of the joint venture, Tata Kothari Steel Ltd, is finalising the project details. The Tata DC Kothari group will have an equity stake of Rs. 55 crores in the project which will have a capacity to manufacture 1.2 lakh tonnes of pig iron- which is in great demand in the state. *Sixth, S and S Industries and Enterprises Ltd (SSIEL)* is diversifying its activities and is setting up a refined edible oil project in the state in 2 phases. In the first phase, a physical refinery with a capacity of 75 tonnes a day will be set up and commence operation in May 1992. In phase II, a function with Japanese collaboration were inaugurated in early February. *Fourth*, the state government cleared one more distillery project to be set up in the private sector by the *Rajshree Sugar and Chemicals Ltd*. It has been allotted 40,000 tonnes of molasses extruder plant and a solvent extraction plant will be set up and start operating from September 1993. *Seventh*, in a water shed event, the first group of 4 public sector companies which had disinvested part of their equity to financial institutions *MRL, NLC, HPF and NALCO* will be listed in the Madras Stock Exchange. Once listed, the shares can be directly traded in the market to the extent disinvested. *Eighth, India Cement* is planning the take over of the sick Karnataka Cement which has remained closed for 2 years. BIFR has asked IFCI and a national bank to get India Cements to take over this unit. When it does, it will expand its cement market in the South. It has already taken over the cement plant of Coromandel Fertilisers in AP. A new promotor who will bring in fresh capital is being looked for. *Ninth, the Narimanam Crude distillation Project* which is at present to process 5 million tonnes of crude because of the intensified drilling by ONGC is being expanded in stages and will be ready for commissioning in June 1993. Another unit being set up in the same area at a cost of Rs. 40 crores to set up LPG from natural gas will be commissioned a few months later in December 1993. *Tenth, NABARD* has approved a package for the *17 cooperative and public sector sugar mills* in the state to tide over the severe liquidity crisis faced by them and is releasing Rs. 90 crores in three instalment through the apex state cooperative bank and district level cooperative banks. *Eleventh, Cotton knit* wear exporters from Tiruppur have achieved a Rs. 1000 crore export target, some 10 months ahead of the target date in 1992. *Twelth, SPIC* has embarked on a Rs. 500 crore modernisation and expansion programme - with Rs. 160 crores for expanding its fertiliser plants at Tuticorin, Rs. 180 to Rs. 200 crores for the drug project coming upto Cuddalore, Rs. 23 crore for setting up a biotechnology unit in Coimbatore and Rs. 83 crore for acquiring bulk gas consumers. Its turnover which is currently Rs. 800 crores will 'fund Rs. 1500 crores by 1995. *Thirteenth, Tube Investments* reports going in for a major investment programme aimed at increasing the company's exports - especially its modern high value bicycles and components. *Fourteenth, a Rs. 49.5 crore common effluent treatment plant* for the tanneries in the Pammal-Pallavaram area is expected to be commissioned by December 1992. *Fifteenth, TIDCO* has set a target of 70,000 tonnes of raw materials for distribution to small scale industries.

On the negative side, *first the Pammal Plant* is a late and weak reply to the complaint made to the 9 member international jury meeting from February 17 in Amsterdam about the tanning industry with its 1000 tanneries, polluting Tamil Nadu's water. The complaint and the Jury verdict is to be presented to the UN Environment Conference at Brazil in July 1992. *Second, the Comptroller and Auditor General in his report* tabled in the Assembly for the year ended March 31, 1989 calls attention to the very meagre return on government investment which to talled Rs. 461.18 crores in 1989 March 31, and on which the returns were only Rs. 1.04 crores. Moreover the report points out that the plan expenditure of Rs. 1020.40 crores fell short of the provision of Rs. 1157.64 crores by 12 per cent. *Third, TANSI* the state sector small industries corporation, in order to reduce its losses has closed down 4 units in January and will be closing another 12 during the coming year. This is on the right lines to close down non viable units and for government to get out of operating industrial units. *Fourth, TIICs, disinvestment policy is slowing down* because of the heavy tax liability on the income arising from off loading of shares in the 21 private companies which at the time of the underwriting the shares had a book value of Rs. 3.97 crores but now has appreciated to Rs. 70 crores. So it proposes to disinvest these shares to avoid the heavy corporation tax which it will otherwise have to pay. *Finally, the small scale sector* in the state is in mess. Looking only at data on unutilised provisional certification to start industries issued by the state government, it is found that out of 50,000 letters of intent issued annually only 15000 are converted to permanent licenses. This large scale non implementation of projects has serious consequence. Industrialists hoard licenses just to exhaust the notified capacity levels of individual industries so that they do not need to face competition. Further, the provisional certification are misused for obtaining loans from banks, which have no business to fall into the trap. Industries Department falls a victim to this because they want to show that they have attained the target of LI issues for the year. The Department should have a data base to tackle this process so that the new liberalised regime is not misused. Thus, on a more positive note, signals in the industrialisation drive in the state outweigh the negative ones, the most serious being the unattended polluting effects of the tanning industry which is growing and spreading.

* * * * * *

IV. Education, Science and Health

Educational reforms

The movement to reduce the high and growing government subsidy to higher education in order to increase the allocation for primary education is gathering momentum. The Indian Institute of Management, Ahmedabad (IIM) has proposed a 10 fold increase in tuition fees for the coming academic year 1992-93. The other IIMs and IITs will follow suit. The government on its side has decided to freeze its grants to these institutions at current levels. Though the grants have not been cut, in effect with inflation at 13-14 percent the grant in real

terms will be that much lower. IIMs depends on government grants for 50 per cent of its expenses and IIM Calcutta to the extent of 75 per cent. The tuition fees of IIMs for its post, graduation management programme is being raised from Rs 500 to Rs. 5000 a year. There is general agreement in the move to raise resources from first consultancy services. The IIM students draw salaries averaging Rs. 6000 a year and so the increase in fees is justified. On the other hand, the government sponsored UGC amendment bill aimed at fixing uniform scales of pay for teaching and non teaching staff of the Central universities has met with such strong opposition from the central universities that this much needed reform is likely to be dropped. The Tamil Nadu Committee on the review of autonomous colleges has submitted its report to the government recommending the grant of autonomy to more institutions in stages and on a selective basis. There are 43 autonomous colleges in Tamil Nadu, 33 of them being arts and science colleges. The committee pronounces the autonomous college a success, wants the college to establish curriculum development centre to help the college boards of studies and recommends the introduction of the credit system at the post graduate level, introduction of the extension component in the curriculum. It also suggests the setting up of an academic equivalence committee by every university to evolve norms of equivalence between programmes of different universities to promote student mobility. The bio technology centre of Anna University is developing teach and reteach in the high tech areas and has attracted aid (Rs. 70 lakhs) from the Swiss Development Corporation for its furthur development.

Technical education

An education centre of M/s Talking Technology Private Limited has been started in Madras in February. This will help catching up with the rapid advances in the emerging areas of Science and Technology. It will promote relevant skills and expertise with a long term focus in emerging fields of technology.

Science

An Institute of Applied Biotechnology Research at a cost of Rs. 22.2 crores is to be started in Bangalore. It will be involved in research for rapid multiplication of slow growing horticultural crops, improvement of drought tolerant rice, tissue culture, generation of medicinal plants and production of antibodies to detect diseased planting materials, development of efficient strains of nitrogen fixing bacterial strains for biogas generation using urban and rural wastes. At an inter IIT meet called by the Planning Commission in Madras, strategy to introduce IIT industry with action was developed largely on the experience of IIT Madras and its Centre for Industrial Consultancy and Sponsored Research which include a proposal to set up industrial foundation research, industrial parks, prototype and pilot plant development, goal oriented industrial research, electronic and small Industry extension to research and a centre of excellence in augmenting resources. It was agreed that there should be aggregate blending of modern and traditional technologies.

Health

The government reports that given the slow progress and lack of measurable results from the family planning programmes, a new effort is underway to educate community leaders on the importance of family planning as a means of controlling the alarming growth of India's population size and increase. In this effort village pradhan and MLAs, MLCs, MPs and trade union leaders are being mobilised. The major effort to tackle the population problems needs to be mounted in weak areas which are the Hindi heartland of UP, Bihar, MP and Rajasthan where the couple protection rate is abysmally low. They are also socio-economically backward areas which needs attention to tackle the population explosion. In view of the spread of AIDS in India, starting in Bombay, US and World Bank help is being used to counter it.

* * * * * *

V. Employment and Labour Relations

The Union government has launched a large scheme to train 4,25,000 rural youth during the year to make them capable of earning their living. They are to be trained in basic management and technical skills TRYSEM and will apply to families earning an annual income of less than Rs. 4800. The scheme under TRYSEM, the Union government provides assistance to training institutions of the union and State governments and Voluntary organisations training youth. On the other side, the union government has finalised a Rs. 5000 crore National Renewal Fund (NRF) spread over a 5 year period to cover the workforce being retrenched from 58 public sector enterprises. About half their workforce, amounting 2.5 lakh have been identified as superfluous and they are to be given a gold handshake with the Rs. 1000 crore a year for 5 years NRF. The shedding of redundant labour will be done in a phased manner at about 50,000 workers a year. The hand shake is not regarded as a dead investment as it is expected that more workers will use the money to start their own small business. The labour minister conference has expressed opposition to the use of NRF for retrenchment and wants it to be used only for retraining and redeployment of workers. This redeployment can be used to streamline the units where there is an excessive workforce so that the distinction between the gold handshake approach and the redeployment approach is not really wide. The state government in February introduced an employment guarantee scheme on the Maharashtra pattern, starting with the 4 drought hit districts of Dharmapuri, Ramanathapuram, Pudukottai and Pasumpon Muthuramalingam Thevar. For this the government obtained the approval of the assembly in February of an allocation of Rs. 10 crores for the year. The landless agriculture labour will have to register themselves in their panchayat unions to be eligible for employment in the various development and welfare works in the area. The reduction proposed by the Union government and planning commission in JRY for the VIII Plan however will nullify these efforts to counter the growing unemployment. The government states that it has under study the recommendation for the revision of minimum wages every 2 years instead of 3 years along with variable dearness allowance every 6 months. In the 5 year period 1986-1990, 31 million mandays were lost compared to the 47 million lost during the previous quadrennium 1981-85. An analysis of the 1986-90 record shows that strikes over monetary demands and personal matters and lock outs on account of indiscipline were the principal causes of work stoppages. While the number of industrial units declaring lay offs declined from 7322 in 1986 to 427 in 1990, the number of closures in small units (employing less than 100 workers was ten times that of larger units. This was due to the credit squeeze hurting small units much more than medium or large units, as pointed out earlier. Again the number of strikes and closures do not tell the whole industrial relations story because without declaring strike or lock out, there is a great deal of loss in work following gheraos. dharnas, rule to work, etc.

* * * * * *

VI. Other Items

RDI and Magnetic Brain Scan

There was an extraordinary meeting of the Reader's Digest Board of Directors where a letter written to the Reader's Digest Association (RDA), Pleasant Ville and circulated to all shareholders by one of the share holders was discussed. It was found that the letter contained many wrong and false statements and was written without consultation with the Chairman on the Board. RDA, Pleasant Ville was informed about these facts. Madras acquired the latest model of the Magnetic Brain Scan which helps promote the Brain research foundation's programme and will be of immense use to the Madras Public needing this facility. Dr. Ramamurthy, Director of the Foundation, got the union minister of telecommunication to inaugurate the machine and explain its many uses.

Indian Economics Association Trust and TNSC and ST

Under the auspices of the Indian Economic Association Trust fund and the School of Economics, Madras University, a workshop was run in February on Fisal Discipline and Fiscal Stabilisation. The need to reduce the continuously growing revenue deficit by cutting government staff, defence outlay and subsidies was the first point of agreement on the question of fiscal discipline along with the widening of the income tax net, the taxing of agricultural incomes above the exemption limit as a means of providing fiscal stability were emphasised. There was the quarterly meeting of the Executive Committee of the Tamil Nadu State Council for Science and Technology which reviewed the ongoing programme and prepared the agenda for the meeting of the Council in March. Meanwhile as a result of the government's decision to change the minister of education and science, the council will have a new chairman when it meets in March.

IIC

The India International Centre organised its February panel discussion on structural reforms-its components and implementation. There was general agreement on the reform to do away with licenses and permits and the unnecessary plethora of controls. This means that the alternative is a market driven economy which has to be developed in phases. IIC also organised a seminar on the next day on the problem of eficits-budgetary, revenue, fiscal and the means of reducing them. There was agreement that the first main reduction should be on the revenue deficit and the monetized part of the state debt-the RBI credit to government. If these two are controlled, the structural reform will get under way relatively smoothly.

University Management Reforms

There was a meeting of the CABE committee to examine the report of the committee on management of higher education. There was agreement that the blue print for the management of Central universities, autonomous colleges and other colleges is on sound lines but will have to be implemented flexibily, in accordance with the needs of the state and region concerned and its educational demands and features.

March Development Seminar

The paper for the March Seminar 'Sustainable Horticulture' by K. Rajaram together with a summary of the discussion on the paper appears as the first article.

Second Article

Part II of the note from the lecture on Structural Adjustments in the Indian Economy appears as the second article.

M I D S News

Dr. Nirmal Sengupta participated in a workshop on Action Research at National Institute of Rural Development, Hyderabad on 20th March, 1992.

* * * * *

Mr. S. Guhan gave a talk on State Finances to Madras University Academic Refresher Course on 25th March, 1992.

He also gave a talk on Cauvery Water Disputes at Seminar organized by Pragati Vedika, Bangalore on 28th March, 1992.

* * * * *

Dr. A. Vaidyanathan participated in

(1) Workshop on National Water Management Project in Tiruchi,

(2) Meeting of the Expert Group on Estimation of Poverty, Planning Commission, New Delhi.

(3) Lecture on Economic Policy and the Budget, India School of Social Sciences, Madras.

* * * * *

A group of students from School of Oriental and African Studies, London accompanied by their Professor visited the Institute on 26th March. 1992 and had a meeting with our faculty on "Urban Studies".

* * * * *

Dr. S. Neelakantan gave a talk on "Information Thoretic Approach to Micro-Economics" to Madras University Academic Refresher Course on 18th March, 1992.

* * * * *

March Development Seminar

Sustainable Horticulture

by

Mr. S. Rajaram

Horticulturist and Project Leader,
M.S. Swaminathan Research Foundation, Madras.

Global problems mainly relate to sustainability and productivity of crops along with the adequacy and dependability of our food supplies. These in turn are primarily dependent on changes in the land surfaces, weather, the abundance, availability, distribution and quality of water resources, fossil fuel resources and the changes in the gaseous composition of the atmosphere. There has been and there are still limitations for the collection, conservation and storage of international exchange of germplasm. This is true especially for plants that are clonally propagated coupled with an increasing rate of extinction of wild species. The planet Earth is a wonder to behold. Productivity of our land is of paramount importance to the future stability of mankind as human beings depend upon land for food, shelter and clothing. It is the land that makes major contribution. 95% of protein in our food and most calories are derived from land. Nearly 20 crops stand between people and starvation which are produced out of the land. Agriculture is the oldest and largest industry in the world and it is also the first basic enterprise. To provide adequate food to meet the improved diets for an expending, affluent, global population will be the greatest challenge in 21st century. 95% of the food consumed are from crops and the most sought-after goal of humanity in future will be the stable yield. It is estimated that annually we are losing world over 8 million hectares of land from non-agricultural conversion, 3 million hectares each from desertification and toxification. The rate of extinction of genetic resources is estimated at 1000 per year and it is still rising. Increase in lands of carbon-di-oxide due to change in the climate may potentially increase the yield from carbon assimilation by plants on a global scale. There's a great potential for increasing productivity by better use of land and waste resources on land currently in cultivation.

Numerous experts, farmers, field workers and consumers are becoming increasingly concerned about the threatening loss of genetic diversity of crop plants and their wild relatives. Genetic diversity is necessary for sustainable agriculture to keep future agricultural options open. Farmers need genetic diversity to have their crops meet changed circumstances, like pest and disease resistance to evolve new strains, meet salt tolerance change in soil conditions and, altered climates.

India has been blessed with a rich diversity of flora and fauna. There are about 15,000 species of flowering plants found in different parts of the country. There is a great degree of diversity ranging from tropical, temperate and alpine vegetations. It also depicts a great variety of plants from coastal to the mountanous Himalayas. In India it is estimated that 2500 species of plants are under various degrees of endangerment. Out of the 2,50,000 species of plants on the earth, it is estimated that global deforestation is proceeding at the rate of 16-20 million hectares every year. It seems that during the next 30-40 years, about 60,000 plants will face threats to their survival or even become extinct. A good many of them may be of great value to mankind such as economic, medicinal or ornamental. It is to be remembered that all the plant species presently cultivated have come from wild germplasm resources of the medieval period. The wild relatives of these plants contribute to the vast genetic resources for varietal improvements and genetic manipulation.

New problems and opportunities have become apparent in plant protection with greater emphasis on integrated control system. The rise in numbers of bio-types resistant to pesticides and a new generation of plant growth regulators, automation censors, new computer technologies and innovations in communication and management have potential for intensive crop management. Achievement in these areas make progress over a wide front possible for increasing the productive capacity of crops and the stability of their output with their sustainability of natural resources. It will be a real challenge to get all these developments implemented.

Emphasis has to be placed on the development of new techniques for collection and breeding of improved horticultural crops, on understanding the complex interaction between plant performance and the environment, on understanding the factors limiting the the shelf life of horticultural crops and on developing improved post-harvest handling techniques, production and post-harvest research will increase the competitiveness and profitability of horticultural crops in the international market.

India currently produces *55-60 million tons of fruit, and vegetables* annually out of which only 1.5% is processed. The exports of various horticulture products both in Quantity and Value terms for the period 1986-87 and 1987-1988 is in (Table 1). Nearly 23-30% of the production worth Rs. 8000 crores are wasted. India is the second largest producer of vegetables in the world, next only to China and the 3rd largest producer of fruits after the US and Brazil. India's share in the international market is only 1.7 million dollars out of 23 million dollars, which is a meagre 0.4% of market share. About 54 million tons of fresh horticultural produce is grown out of nearly 5 million hectares which is only 3% of the gross cropped area of the country. The range is wide and there's a vast potential varying from tropical to temperate Zones virtually, every fruit and vegetable grown in the world is produced in India. as in (Table 2).

Eco foods of the future has to come mostly out of fruits and vegetables. Therefore nutritive qualities of fruits and vegetables will be of paramount importance. A major constraint is that plant breeders have little economic incentive to improve nutritive qualities of food crops. Farmers have few incentives to adopt them even though in the developed countries, a significant and growing segment of the population looks for and is willing to pay more for better quality food. In developing countries, the nutritive value of food is especially critical.

It will become increasingly important to decontaminate fruits and vegetables, soil and water out of pesticides. Common side effects of pesticides are related to environment component and the nature of their effects are depicted in (Table 3).

Abuse of pesticides should be stopped forth with. Some important pesticides, food they contaminate and the nature of their impact is analysed in (Table 4). It is time to replace the recalcitrant pesticides with the compounds of high pesticide suitability rating (PSP) to avoid the problems of residues. The various pesticidal accidents in India with reference to place and nature of pesticides is in (Table 5).

Apart from abuse of pesticides vast areas of land is becoming saline year after year. Besides correction and improvement of soil there is an urgent need to develop or introduce plant species and varieties suitable for saline tracks. In major crops like mango, it is imperative that salt tolerant root stocks are identified. It has been proved possible to improve the salt-tolerance of the desired scion varieties by grafting on them to rootstocks which have the ability to restrict the uptake of salts. Producers are to be developed to identify salt excluding genotypes from genetically variable population of fruit species and varieties.

In the field of medicinal plants the country offers tremendous scope as we have medicinal plants from Acorus to gingiber. Production of important phytochemicals through plant cell culture offers immense scope.

No dramatic change in the food habits of people is expected in the 21st century. About 20 food crops will continue to meet the primary needs of people with economic incentives, resource inputs and with appropriate techniques, there will be no world-wide food shortage. A shift can be expected from highly mechanised to labour saving crops. From a single crop of livestock farming to more science and biological opportunities and diversified farming will contribute to reserves and conserve set of agricultural technologies. A wide variety of crop production technologies resulting in collected systems of input will increase food productivity. Future will see more of production to technology inputs than in the past. In the case of resource base, new technologies and impact of science we are mindful of creativity, innovations and vision of people - THE HUMAN RESOURCES. This will be the greatest of all resources, which may be termed as human capital. As no limitation can be ascribed to the human mind, it will be the most unpredictable and most important contributor to the future of agriculture.

TABLE - 1

Export of Agriculture & Processed Food Products

Items	1987-88	1986-87	1987-88	1986-87
	Quantity in tonnes		Value in Rs lakhs	
Fruit juices	3992	8814	245	533
Other canned fruits	25976	30320	2682	3401
Canned vegetables	916	971	163	172
Dehydrated vegetables	876	1128	143	167
Pickles & chutneys	6360	5700	680	620
Fr/Fz sheep/goat meat	7968	9378	2191	2297
Frozen buffalo meat	51540	36064	6704	4584
Canned meat	—	1376	34	321
Poultry products	—	—	85	54
Animal casings	—	—	381	232
Confectionery	—	70	46	13
Biscuits	1205	821	139	90
Guar gum	43947	28337	8021	3367
Alcoholic beverages	—	142	—	78
Wheat bran	592	—	14	—
Malted milk-food	821	892	204	208
Ghee	198	533	103	228
Starch and derivatives	1085	2683	36	71
Papads	3129	3343	503	490
Cocoa products	151	69	78	35
Walnuts in shells	256	300	42	58
Walnut kernels	3876	4062	1214	1194
Mushrooms	70	68	1187	1013
Other processed foods	—	—	362	326
Fresh mangoes	14900@	10500@	1730	1200
Other fresh foods	12500@	14500@	1250	1300
Fresh vegetables	30000@	28000@	2100	1960
Fresh onions	140996	265875	4213	5846
Fresh potatoes	111	27	5	Neg.
Basmati rice	330611*	237153	30788	20678
Other rice	67958	2689	3514	132
Wheat	491644	439105	7568	7481
Maize	50	10	1	Neg.
Bajra	5887	2408	149	66
Jowar	782	930	22	24
Ragi	52	74	3	2

@ Estimated * Exclude figures for Kandla for March, 1988.
Source : Indian Food Industry, March-April 1990

TABLE-II

All-India Final Estimate of Miscellaneous Crops 1988-89

Crop Production (Thousand tonnes)

(1)	1988-89 (Final) (2)	1987-88 (Revised) (3)
Sugarcane (Cane)	2,04,625.5	1,96,736.9
Coconut	8,160.8	7,269.9
Tobacco	491.4	367.4
Condiments & Spices		
Black Pepper	43.4	48.1
Chillies	609.0	579.8
Ginger	153.6	142.8
Tumeric	339.8	303.9
Coriander	173.2	296.8
Cardamom	8. 7	9.3
Garlic	242.3	318.6
Arecanut	246.1	226.7
Guarseed	710.0	143.5
Fruits & Vegetable		
Banana	5,954.1	5,917.9
Potato	14,892.5	14,046.0
Sweet Potato	1,278.5	1,257.6
Tapioca	4,470.0	5,416.5
Onion	3,236.4	2,700.7

Source: (Agricultural Situation in India, March 1990)

Table-III

Common side effects of Pesticides

Environment Component	Effect
Abiotic Plants	Residues in soil, water and air Presence of residues Phytotoxicity Vegetation changes (e.g. due to use of herbicides)
Animals, avains, insects etc.	Residues in domestic animals and wild life Physiological effects Mortality in certain wild life species (e.g. mammals, birds, fish) Mortality of beneficial predatory and parasitic insects. Insect population changes (e.g. the development of secondary pest as a result of above). Genetic disorders. Biochemical changes
Man	Residues in tissues and organs Effects of occupational exposure
Food	Mortality and deformations Presence of residues

Adopted from: Cherian and Mulky (1989)

Table - IV

Some important pesticides, food they contaminate and the nature of impact

Pesticides	Food Contaminated	Impact
Organochlorines		
Aldrin	Fish, Milk, Fat	Accumulation in human tissues
DDT	Fish, Milk, Fat, Meat	Accumulation in human tissues, low toxicity, induction of liver enxymes
Lindane	Fruits, Vegetables Cereals, Milk, Fat	Accumulation in human tissues, toxic to bone marrow, probably carcinogenic
Heptachlor	Fish, Milk, Fat	Accumulation in human tissues, toxic to bone marrow, probably carcinogenic
Organophosphorus		
Malathion	Fruits	Acute toxicity, neurotoxic
Parathion	Fruits, Vegetables	Acute toxicity, neurotoxic

Kavadia (1989)

Table - V

Salient pesticidal accidents in India

Pesticide	Place	Year	Cause	Reference
Parathion	Kerala	1958	Food contaminated due to leakage	Karunakaran (1958)
	Bombay	1962	Inhalation in manufacturing plant	Refer Mukerjee (1984)
HCH	Bombay	1963	Rice contaminated	DGHS, Delhi (1965)
Endrin	Bombay	1964	Food contaminated	DGHS, Delhi (1965)
DDT	Punjab	1965	"Chutney" contaminated with DDT	The Hindustan Times (15. 06.65)
Diazinon	Pune	1968	Food contaminated	Kamik (1970)
HCH	U.P. (Lakhimpur)	1976	Mixed with wheat	Nag (1977)
Endrin	Karnataka	1977	Contaminated crabs in rice field	Refer Mukherjee (1984)
Aluminium phosphide	Rajasthan	1983	Contaminated foodgrain	Bajai and Wasir (1988)
Methyl isocyanate	Bhopal	1984	Storage tank leakage	Banerji (1986)

Summary of Discussion

The author at the outset posed a pertinent question relating to the sustainable nature of agriculture and raised a query as to why Horticulture today was not sustainable vis a vis food crops. Horticulture means business and therefore farming has become a way of life.

In the Indian context for an average farmer what is sustainable and profitable in the long run is the possession of economic holdings. India has the natural advantages of being a tropical country blessed with plenty of sunshine most part of the year to grow a variety of crops even on small and marginal lands. The potential is greater for horticultural crops like mango and grapes even during off seasons. The success to evolve a sustainable agricultural strategy is in the areas of marketing and management.

The successful story of grape cultivation in a village in Chingleput MGR District was visually demonstrated to the participants. Grape cultivation could be developed in that village without involving outside workers.

The Maharashtra farmers are an exception and has proved that successful adoption of horticultural practices is economical, sustainable and remunerative even in non conventional areas for small and marginal farmers .The sustainability of land however depended on policy decisions of government based on appropriate water management policies to prevent soil erosion and avoidence of excess dosage of chemicals and pesticides.

The chairman, Dr. M. S. Swaminathan while intervening in the discussions mentioned that Tamilnadu Agricultural University is a pioneer in agricultural research in the country, yet studies shows about 95 percent of vegetables and fruits contained high level of toxic contexts above permissable limits.

In the discussions that followed the presentation, a local farmer raised the query on the dosage of fertilisers and pesticides to be used for different crops as the farming community are ignorant of modern farming methods. The author responded by stating that educating farmers alone would not suffice and practically not feasible but if the dealers, government outlet agents, extension officers, depot managers were involved it would go a long way to educate the farmers. The Chairman intervened and mentioned that imports of fruits and vegetables from India is highly vulnerable to foreign buyers as they are suspected of containing high percentage of pesticide absorption. Other issues of special importance are lack of proper storage, pre and post harvesting techniques and packaging materials.

On rhe question of the most common vegetable viz., Brinjal being prone to desease and to curtail excessive usage of pesticides for large areas and wide range of crops, it was felt that farmers themselves could not go after the agencies like the Agricultural universities which are generatly more thoretical in their style of functioning than been practical.

The author intervened and mentioned that pests could be tackled by usage of right pesticide and right dosage on time. He cited Israel as a case point where cowdung and earthworms are used as manure to improve the quality of soil. The chairman also mentioned that the whole agricultural extension services needs to be improved. Besides Production and distribution of quality seeds needs to be strengthened. Tamil Nadu climatically has a better crop mix both for horticulture and food crops but the full potential is yet to be tapped as in the case of Maharashtra farmers. It was also felt that for tangible results the active support and participation of the people in the village was indispensable.

To the question of horticulture products being soil specific and on its replicability and reliance, being limited, the author mentioned that apart from water, nature of soil was equally important. The genetic diversity to make crops meet changed circumstances to tackle pest and disease was crucial and proximity to markets to dispose marketable surplus was equally important.

On the question of whether the MS Swaminathan Foundation has conducted training for farmers on what soil what crops could be grown, the chairman mentioned the two ongoing projects in Pondicherry and Nagapattinam. He pointed out that suitable agroclimatic conditions, soil salinity, marketing and detailed planning along with the active support and cooperation of Small Farmers Agri Business Consultancy and the National Horticulture Board, the ideal match between the various crops and soil types could be ascertained.

One question raised was whether development of horticulture crops beyond a point would lead to reduction of area under cereals as the former is consumed largely by upper and high middle class population and latter by the poor and low income groups. It was clarified by the author that horticultural crops are developed only in the dry and rainfed areas and area under paddy therefore would not be adversely affected. The chairman however pointed out that the optimum mix of area allocation raises many important issues because the kind of crops raised has implications for income and employment generation in agriculture. As a corollary to the above query it was clarified whether the optimal mix of area allocation could come under the current liberalisation policy of the government. The chairman however made it clear that macro economic decisions at the highest policy making level are important. Yet local level decisions such as what products should be grown, how and by whom should be left to the cooperative societies and the farming households themselves.

On the need to explore the nature of soil and its constituent, a participant referred to the utility and efficacy of satellite imageries rather than the tedious survey methods. The chairman was in confirmly with the above views and agreed that mapping could be done more efficiently and at the operational level the Anna University's Remote Sensing Department is involved in similar activities.

On the question of the quantum jump in pesticide consumption over the years inclusive of both locally manufactured and imported categories the author was very much concerned and mentioned that pesticides were pest specific and their dosage and timing were equally important to produce the desired results. The Chairman mentioned the two common pests viz., the *Stem Borer* and *Lady Bird Bettle* which has to be tackled at the right time with the necessary dosage and even village communities have to be encouraged to use profilactic sprays. A classic case of Indonesia where 50 percent of pesticides from outside farmers association was banned was narrated to prove the harmful effects of the ill use of pesticides. The crucial areas for sustainable horticulture according to the chairman involved efficient water management schemes, post harvest technology, right dosage of pesticides and improved marketing strategies. The chairman also cited the example of the successful fibreless ginger cultivation in Wynad district of Kerala, yet is was not sustainable due to marketing problems.

The scope for increasing horticultural activities was immense and even forest lands and unconventional areas can be utilized with superior hybrid seed varieties supplemented by efficient water and pest management. The village level meetings on a regular basis and cooperation of local people would give an impetus to the sustainability and development of horticulture, in the near fufure.

V. JACOB JOHN

Structural Adjustment in the Indian Economy — an assessment*

Risks of recession are likely to be aggravated by the measures to reduce the fiscal deficit. The 1991-92 budget promised that deficit financing will be contained at Rs. 7,500 crores without imposing any additional levies largely by controlling non-plan expenditures and effecting substantial cuts in food and fertiliser subsidies. If indeed non-development expenditures are contained at budgetted levels by these measures, it would be an unprecedented achievement deserving the utmost commendation. Even so the fact that revenue collections are running substantially below projections and report that the centre is holding back on payments (eg. of amounts due to the financial institutions on account of the farm loan waivers of last year), give room for apprehension that deficits may not be really contained at projected levels. The latest available information suggests that Reserve Bank lending to government is running at a higher level than projected.

The prospects for the coming budget are more daunting. Even ignoring the unease on account of revenue collections, if present trends continue, several difficulties remain. Reducing tariffs to fulfill commitments about trade liberalisation would mean substantial revenue reduction; and a cut in the statutory liquidity ratio (i.e. the proportion of the commercial banks, resources which they are required by statute to invest in government securities) will substantially reduce the magnitude of borrowings from the market and/or raise their cost. The government has in any case agreed to bring down the fiscal deficit to 5 per cent of GDP by 1991-92. Substantial cuts in non development expenditure are not feasible in the immediate future. Nothing can be done about interest payments; it would be surprising if defence and expenditure on civilian staff can be brought down significantly in a year or two, and the scope for further cuts in central subsidies is limited.

Given all this, there is every likelihood that the resources available for the plan will be squeezed. A slow down in public sector plan outlays would affect growth via aggregate demand and depressing growth of industries dependent directly on public investments. It also raises difficult questions of where

*Part II of the Dr. John Mathai Memorial Lecture delivered by Prof. A. Vaidyanathan at the Department of Economics, Calicut University, Thrissoor, January 10, 1992.

the cuts should it be in the central plan or in reduced assistance to states? How should cuts be distributed as between energy, transport and other infrastructure, agriculture and rural development, industry and anti-poverty, employment programmes? Cuts in infrastructure investment will adversely affect growth, while cuts in anti-poverty restrict the scope of the 'safetynet" for the poor at a time when they need it most. On the other hand to insist on a certain magnitude of financial outlays for the plan, irrespective of what happens to nonplan expenditures and the impact of various fiscal measures on resources available to government, can only exacerbate the dangers of a stagflation.

It is thus necessary to be realistic about the economic and political problems involved in reducing the fiscal deficit and the time it will take to accomplish it without causing serious dislocation. To try and 'sell' the adjustments package on the promise of a speedy and dramatic turn around in the economy's performance in respect of output growth, employment, inflation and balance of payment, is tempting but shortsighted. Not all the elements of the package have been worked out; none of them is easy to implement; and the economy's response is uncertain. The risk of one or more promises regarding improved performance is very high. Therefore, it is better to administer the bitter medicine without sugar coating it with false hopes. Adjustment will be a slow and painfull process and should be projected as such.

Reducing fiscal deficits calls for measures both on the revenue and on the expenditure sides. Major changes in the structure of taxation—especially as between excise and customs—are in the offing. The nature of these changes and the net revenue impact is as yet unclear: the apprehension is that there may be a loss of revenue. Partly for this reason and on grounds of equity, a substantial increase in the share of direct taxes relative to total revenues and to GDP is desirable and feasible. Wider coverage of direct taxes, simplification of the system by eliminating exemptions are as necessary as effective enforcement of tax laws. There is clearly much room for improvement in the latter respect.

However, much, the more important concern should be on economising expenditure both by cutting non-development items to the bare bone and improving the efficiency of development spending. Among the non-development expenditures, defence, staff salaries and subsidies are the prinicipal areas where potential for economies is large.

In the case of defence the need for a close look at manning and equipment programmes with a view to cut ing down spending without compromising security has long been emphasised but to no avail. The upheavals in USSR, so far the major source of our hardware, may have significant consequences for the cost of maintenance of existing equipment and for replacements both of which may call for large expenditures. Changes in the world geopolitical situation on the other hand argue for a reassessment of our "threat perceptions" and long term defence strategy. What the overall impact would be can only be a matter of speculation at this stage. But there can be no question that any reassessment should keep in mind the severe fiscal crisis and the need to contain the growth of defence expenditure to the minimum, and, if possible, even reduce them so that resources for development are not jeopardised.

In order to contain the growth of staff salaries it is essential to (a) check any

increase in the number of government staff and eventually reduce it; (b) redeploy of personnel along with rationalisation of activities to raise their effectiveness and (c) observe a great deal of restraint in the matter of revision of pay scales, allowances and benefits. Government employees are among the more privileged segments of Indian society in terms of level of emoluments and security of jobs and can reasonably be expected to share in the cost of structural adjustment.

The third area is subsidies. Apart from explicit subsidies given by the centre on account of food, fertilisers and exports, the quantum of implicit subsidies largely on account of the difference between the cost of providing various goods and services and the recoveries from their users is much larger. The National Institute of Public Finance Policy and Research estimates the total value of unrecovered costs on account of social and economic services at Rs. 42,000 crores in 1987-88-nearly as large as the total public sector plan outlay in that year. About 40 per cent of the unrecovered costs is on account of social services and 60 per cent for economic services (including irrigation, power and transport). A substantial reduction in the magnitude of these subsidies would release sizeable resources for the plan and should therefore be very high on the agenda of reform.

These unrecovered costs however, do not all represent subsidies to the consumers of these services. A good part of it is attributable to inefficiencies in production and inappropriate pricing for different categories of users. Therefore any attempt of reducing the magnitude of unrecovered costs must address both aspects of the problem. Increases in user charges are inevitable-notably for irrigation, power and road transport. However, it is essential to be discriminating while deciding which category of uses and users should be made to pay more and by how much. At the same time, the task of raising the efficiency in the production and distribution of the goods and services should receive far greater emphasis and attention than it has so far.

One way to generate the necessary pressures would be to subject increases in administered prices to review by independent tribunals and make them contingent on explicit commitments on the part of the concerned department/enterprise to achieve a reasonable level of operational efficiency and reduce unit costs. The present system of unilateral announcement of price increases without any question as to whether the costs and cost increases are kept to the minimum is indefensible. Clearly too the discipline must cover both the centre and the states in as much as the latter account for nearly 60 percent of the total unrecovered costs on social economic services and nearly half that on economic services.

That there is considerable scope for improvement in efficiency in practically every sphere is all too obvious. Efforts in this respect must focus specially on energy and transport - which are mostly or largely in the public sector and are used throughout the economy. Greater efficiency through better use of existing capacity of such universal intermediates reduces unit costs of producing them, and therefore the potential for cost push inflation through administered price rises. It also reduces the quantum of additional capacity, and hence investment, needed to meet a given growth in demand for these inputs. If these were combined with effective measures to conserve and economise these capital intensive inputs in the activities using them, the additional capacity needed to meet a given growth of demand will be further reduced, thereby releasing investment resources for other uses. A strong and purposive policy of conservation of energy generally, and of petroleum products in iparticular, as well as in fertiliser use is essential. These are all highly capital rntensive, and import intensive; domestic esources of oil are limited and measures to contain the growth of demand for oil and oil-based products is essential for long term viability in balance of payments.

Improvements in enterprise efficiency however require concerted efforts in which the centre, the state governments and the workers of the concerned enterprises all need to cooperate. This cannot be achieved by exhortation, pressure or confrontation but only by assiduous fostering of a sense of the serious stakes involved and collaboration in evolving a restructuring programme which seeks to minimise the costs of adjustment—in terms of redeployment and even retrenchment of workers. To imagine that the problem can be solved through privatisation is altogether unrealistic in the case of infrastructure: one cannot duck the problem of improving efficiency of investments already made by the public sector; the scope, manner and implications of privatisation in sectors like power, coal and transport have in any case to be thought thorough far more carefully and in detail before taking that route.

. Another area where potential efficiency gains are significant is in the plan itself. These include a stricter scrutiny of all new public investment proposals in terms of the social and economic justication and a review of ongoing projects (especially larger projects) with a view to speedy completion of ongoing schemes and eschewing non-viable projects. By far the most important is reducing duplication and waste in implementation of agriculture, rural development and anti-poverty programmes which now account for nearly one fifth of public sector plan outlay. The efficacy of these programmes can be greatly increased by integrating and pooling the resources being spent on those elements of the programmes which consist of works to be done locally and making them available to elected representative local bodies for deployment in accordance with specific needs and potentials of each district, block and panchayat.

Duplication and leakages can be substantially reduced in the framework of such decentralisation even as it creates political space in which local leaders can meaningfully participate in developmental activity. The creation of such a political space at the local level is also a much needed antidote and corrective to the present excessive centralisation of power and patronage. Democratic decentralisation is therefore important both for more effective use of resources for local development and for more healthy politics.

All these reforms—and the list is far from exhaustive-calls for a high order of political management. In the first place, the sense of crisis, the imperative need for systemic reform and the rationale for the main element of the reforms need to be effectively communicated to all level of government and to the people at large. Second, the task of structural reform should not be viewed as the responsibility of the Centre alone. States spent nearly as much as the centre. They are responsible for key segments of infrastructure (namely electricity, roads and water supply) as

well as the social welfare andanti-poverty programmes; the implicit subsidies (unrecovered costs) passing through the state budgets are some 60 per cent more than in the central budget; and the state governments taken as a whole also show a substantial and growing revenue deficit. Unless the states also show a high degree of fiscal discipline-which must necessarily consist of a mixture designed to raise revenues, contain expenditure growth and improve the effectiveness of expenditure - it would be hardly possible to bring down the overall fiscal deficit without impinging adversely on the expansion and improvement of essential infrastructure (so crucial for the success of trade and industrial liberalisation) and on the employment and anti-poverty programmes (which provide a safety net of sorts for the vulnerable segments).

On the other hand, the condition of the state finances are affected in myriad ways by the Centre. The manner in which the centre mobilises additional resources, the centre's policies regarding salaries, allowances and benefits for employees, the operational effciency and pricing policies of central public enterprises, the decisions regarding the overall size of the plan, the magnitude of central assistance and the nature and scale of "centrally sponsored" schemes-all these all have a large impact on the state resources. Given this, and the vast ramification of structural adjustment' one would expect a serious and sustained effort by the Centre to take the states fully into confidence about the nature and magnitude of the crisis facing the economy and the rationale for and implications of the "structural adjustment" programme even while impressing on them the contribution they have to make and the responsibilities they have to share in order to make the programme a success. What we need is a national structural adjustment programme based on the maximum possible understanding and consent among the states and the centre. Apart from informal meets, the NDC and the Inter-State Council provide formal mechanisms for informing, counselling and discussing these issues with the states. That these have not been used to any significant extent in shaping the adjustment reforms is to be regretted.

In the final analysis no structural adjustment programme can be effectively implemented without broad based political support. This support will not be easy to muster merely on the basis of promises of faster growth of income and employment and of lower rate of inflation at the end of the adjustment process It requires not only a great deal of public education about the need for, policy changes but also to generate a feeling that the costs of adjustment-by way of lower subsidies, higher price of utilities and services, higher taxes, insistence on productivity norms, the redeployment and even some retrenchment of workers, restraints on increase in wages and salaries, restricting the scope for using public institutions for political patronage at every level-are being shared equitably. As it is farmers are being asked to pay more for water, electricity and fertilisers; workers to accept wage restraints retrenchment and closures; and the users of PDS to pay higher prices for foodgrains, sugar, kerosene and transport services. Necessary as all these are, they also provoke—and understandably so—a great deal of resistance. And the farm lobby and trade unions are forces to reckon with. Their opposition can however, be to some extent mitigated by measures to contain the adverse effects on employment and incomes specially for the vulnerable segments of the population.

A "safety net" for workers in the organised sector who may lose their jobs in the process of adjustment is on the agenda. But there is hardly any talk of the far more numerous rural wage labour and workers in urban unorganised activities who are relatively worse off, whose jobs, and incomes are also at risk and who have neither legislative nor union protection. It is extremely important, at a minimum, to ensure that the employment and anti-poverty programmes and access of the poor to the PDS do not get whittled down in the name of fiscal crisis.

Above all it is essential to demonstrate that the better off segments, especially in urban areas, bear their due share of the costs of adjustment. The state must show greater willingness and ability to deal with this class, make them pay the taxes due from them, pay for the full cost of public service they use, and take measures to enforce greater austerity among them than is currently in evidence. Regrettably, the tendency is to assume that nothing much can be done to make tax administration effectively enfore existing tax laws relating to income, wealth and property. Amnesties and incentives to flush out black money is a reflection of this presumption ; and tantamounts to sanctifying a culture of non—compliance with the law among the well-to-do. So is the plea for lowering of the tax rates on the ground that it will reduce incentives for evasion. There is also a vocal lobby for raising the exemption limit for income tax, removing restrictions on the level of executive compensation, and reducing excise duty on durables and other goods largely catering to the better-off segments in the face of recession. Should the government yield to these pressures, the effective tax burden on the well-to-do will be reduced—even as all other classes are being asked to bear hardships for the sake of the "larger good". Can we really expect a democratic polity to support, or is it even proper to expect it to support, such an inequitous sharing of the cost of adjustment ?

Publications of the Institute consist of the following categories

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

2. Cyclostyled Publications : These consist of Working Papers, Digest Series, Data Series, Popular Series, Interns Reports and Offprint Series brought out since 1978. Detailed list available on request from the Programme Coordinator of MIDS.

3. Occasional Publications of the Institute Include :

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

b) *Area Studies Bibilography Tamil Nadu* (1984) published by MIDS, pp. 226 Rs. 30/-for paper cover and Rs. 40/- bound volume.

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

a), b) and c) obtainable from the Programme Coordinator of MIDS.

4. Special Publications*

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

b) *Guide to Research in Economics,* edited by C.T Kurien (second edition) (1985) & Published for MIDS by M/s. Rainbow Publishers, Coimbatore, pp. 390 Rs. 100/-

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

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

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

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

Regd. No. M. T/MS(S) 485

MADRAS INSTITUTE OF DEVELOPMENT STUDIES (MIDS)

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

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

The activities of the Institute are:

—Research leading to Ph.D. Degree

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

—Documentation and library service in development problems

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

— Publication of papers and results of the Institute

Editor: Dr. Malcolm S. Adiseshiah. Published by Dr S. Neelakantan for Madras Institute of Development Studies, 79, Second Main Road, Gandhinagar, Adyar, Madras 600 020, India.
printed at reliance printers, sardar patel road, madras-600 020.

BULLETIN

MADRAS DEVELOPMENT SEMINAR SERIES

Vol. XXII No. 5-6 May — June 1992

An Approach to the Central Budget 1992-93

Fiscal Management in India : Issues and Options

CONTENTS

EDITORIAL - SOME HIGHLIGHTS

I. General Economic Scene

State

State Budget 1992-93

The government presented to the Assembly the budget for the state for 1992-93 in early April. A summary of the budget is as follows :

Items (1)	1990-91 Accounts (2)	1991-92 Budget Estimate (3)	1991-92 Revised Estimate (4)	1992-93 Budget Estimate (5) (Rupees in crores)
1. Consolidated Fund -				
Revenue Receipts	50,87.89	53,47.34	58,79.52	64,46.54
Expenditure met from Revenue	56,41.29	62,49.83	65,29.57	72,55.27
Surplus or Deficit on Revenue Account	(—) 5,53.40	(—) 9,02.49	(—) 6,50.05	(—) 8,08.73
Capital Receipts	22,91.67	21,10.56	24,06.08	27,23.83
Expenditure met from Capital including loans and advances (Net)	21,08.97	18,96.00	22,85.14	22,52.72
Deficit or Surplus on Capital Account	(+) 1,82.70	(+) 2,14.56	(+) 1,40.94	(+) 4,71.11
Total—Consolidated Fund (Net)	(—) 3,70.70	(—) 6,87.93	(—) 5,09.11	(—) 3,37.62
ii. Contingency Fund (Net)	(+) 3.80			
iii. Public Account (Net)	(+) 3,75.50	(+) 1,10.52	(+) 1,09.30	(+) 1,20.00
Total—Transactions (i+ii+iii)	(+) 1.00	(—) 5,77.41	(—) 3,99.81	(—) 2,17.62
Opening Balance	(—) 2.66	(—) 2,07.94	(—) 1.66	(—) 4,01.47
Closing Balance	(—) 1.66	(—) 7,85.35	(—) 4,04.47	(—) 6,19.09

The 1991-92 revised budget, as summarised in the above table shows a) that the 1991-92 deficit on revenue account was lower than budgeted because revenue receipts exceeded the budgeted amount, b) capital receipts were higher than budgeted and so the deficit on capital account was lower, and c) the overall deficit in the revised budget was sharply reduced by over Rs. 3.8 crores. Against this background, the 1992-93 budget proposes a) about an equal increase in revenue receipts and expenditure of about Rs. 7 crores b) resulting in a slight decline in the revenue deficit of Rs. 42 crores at Rs. 808.73 crores, c) capital receipts and expenditure showing an increase of Rs. 300 crores in receipts and a slight decline in expenditures of Rs. 13 crores, d) result in a capital surplus of Rs. 471.11 crores, and e) with an overall deficit for 1992-93 at Rs. 619.09 crores. The 1992-93 budget proposes to increase the taxes to net Rs. 70 crores through a) the increase in sales tax on Indian Made Foreign Liquor which will bring Rs. 40 crores and so discourage illicit manufacture of liquor and in place of the tax exemption in molasses and subject it to tax of 25 per cent, b) the increased motor vehicles tax (rationalisation of slabs for 2 wheelers and the increased annual tax on MVs) which will bring in Rs. 20 crores and c) the increased stamp duty which will bring in Rs. 10 crores. Some reliefs have been accorded for housewives by lowering the tax rate from 8 to 5 per cent on some food articles and imitation jewellery and exemption of some cosmetics: the tax on laminated jute bags have been reduced from 8 per cent to 5 per cent, the tax on taxi cabs reduced from 15 per cent to 5 per cent and on tractors from 12 to 7 per cent, and on rear loaders, dumpers and scrapers reduced from 9 per cent to 5 per cent, a concessional levy of 1 per cent on dressed hides and skins purchased from other states as an encouragement to the leather industry. The exemption limit for hotels and restaurants for the 5 per cent sales tax has been reduced from the current Rs. 18. 25 lakhs to Rs. 5 lakhs a year. All the reductions involve a revenue loss of Rs. 4 crores. So the net budget deficit for 1992-93 is estimated at Rs. 494.09 crores, which takes into account revenue receipt at Rs. 6446.54 crores and revenue expenditure of Rs. 7255.27 crores, leaving a gap of Rs. 808.73 crores. Taking into account the net effect of transactions in other accounts, the deficit on account of transaction in 1992-93 is put at Rs. 217.62 crores and taking into account the closing deficit in the revised estimates 1991-1992 is Rs. 401.47 crores, leaving an overall total deficit of Rs. 619 crores (excluding the Rs. 80 crores shortfall in the Tamil Nadu Electricity Board). With the austerity measures on the administration front and other belt tightening moves, the government expects to save about Rs. 55 crores, making the fiscal deficit at the end of 1992-93, Rs. 499.04 crores. The government proposes to amend the Tamil Nadu Sales Tax Act providing for power to the commissioner of commercial taxes. It announced the setting up of a sales tax reform committee which will undertake a complete reexamination of the structure and levy of sales tax. Also to review the property tax levied in Madras, Madurai and Coimbatore, the government is to undertake a study to evolve a proper system and ensure prompt payment. On the state's industrial development, TN budget proposes a Rs. 70 crore plan to set up functional industrisl estates with assistance from the Overseas Economic Cooperation Fund, and an initial allocation of Rs. 2.5 crores to TIDCO for the Rs. 7000 crores joint sector lignite based power

project at Jayamkondacholapuram to be implemented by SIDCO. and to cover electronics, leather goods, hosiery, textile, engineering goods, petrochemicals, food processing and automobile accessories. It also sets aside Rs. 5 crores for equity investment in the newly created Tamil Nadu Corporation for Industrial Infrastructure Development which is to begin with, to establish 4 days industrial growth centres and has approached ADB for assistance. On the power front, ADB assistance is being requested for another 500 MW unit in North Madras which will cost Rs. 944 crores. This unit is scheduled to have a 630 MW capacity, at a cost of Rs. 845 crores. This year the state will be adding 220 MW additional capacity. TEDA is to establish wind mills to generate 100 MW under the integrated rural energy programme, for which the finances are being sought. The Tamil Nadu Electricity Board continues to lose revenue because of the high cost of transporting coal which is worsened by the recent hikes in both freight and coal prices and the heavily subsidised power to farmers which adds to its losses. The supply of electricity to farmers causes a loss of Rs. 560 crores annually, of which only Rs. 350 crores is compensation by the Union government. Also the government waives annually interest dues amounting to Rs. 100 crores from TNEB. With the World Bank and the financial institutions insisting that on the need to revise the Electricity rates, the budget states that this question now needs to be examined seriously to reach a solution. The budget increases the outlay on roads of Rs. 314.51 crores, which is an increase of Rs. 200.35 crores which for the first time is more than the receipts from the motor vehicle tax. Also for the first time Rs. 125 crores is provided for road maintenance, above the amount presented by the IX Finance Commission. The budget proposes to set up a State Labour Rehabilitation Fund to protect workers from the policy changes being initiated by the union and for this purpose has asked for a grant of Rs. 50 crores. In the handloom sector, insurance for weavers has been enhanced from Rs. 10,000 to Rs. 25,000, besides modernising 5000 handlooms and establishing 500 power looms during the year. The Bargur Cooperative Spinning Mill promised by the chief minister in her constituency is being set up with Rs. 22 crores. In regard to environment improvement, common effluent treatment plants are to be set up at Pallavaram, Pammal, Tiruppur and Erode at a cost of Rs. 50.5 crores. A Rs. 332 crores plan is set forth to counter pollution in the Cauvery with the assistance of OELF. World Bank aid is to be used for industrial pollution control. The budget increases plan outlay for agriculture and allied activities from Rs. 187.53 crores in 1991-92 to Rs. 215.75 crores in 1992-93. The World Bank aid of Rs. 309.29 crores to TNAU will help the production of new seeds, the absorption of new technologies and reformed extension services. Oil palm production is being given a special Rs. 24.89 which with the aid from the Union and commercial banks will involve increase in production. A biotechnology utilisation programme with new initiatives in biofertilisers, and bio pesticides is to be harnessed to ensure sustainable agricultural growth. Also 100 per cent export oriented horticultural estates are being set up with all the concessions applicable to industry. A Rs. 310 crores externally aided minor and medium irrigation programme is to be launched together with phase II of the lower modernisation involving a 50 large and 80 small tanks. The budget provides Rs. 47.65 crores for agro state programmes to be aided by SIDA. Tea estates are being extended by 7500 acres and a prawn farming industrial estate over an area of 272 acres costing Rs. 7.2 crores and integrated with Rs. 15.88 crores marine fisheries project have been proposed. In order to counter the precarious financial position of local bodies, their finances are to be improved by revising the cess on land revenue from 45 paise per rupee to one rupee and to modify the sharing pattern so that 75 per cent instead of the present 55 per cent goes to the village and town panchayats. Also the surcharge on the local cess on the land revenue is being raised from the 1972 Rs. 2.50 per rupee of land revenue to minimum of Rs. 5 and maximum of Rs. 10, the exact amount to be decided by each panchayat. The major problem for the government and the budget is the 1992-93 deficit of Rs. 449.08 crores which is attributed by the government to the unequal financial relations between the union and the state governments, to the uniform application of the Gadgil formula on the Plan assistance with regard to the Plan revenue grant of Rs. 45 crores for 1990-95, to computing the the State Domestic Product and the state being excluded from the case of states receiving 20 point programme plan assistance and 7.5 per cent aid for special problems. Further the state should share in the corporation tax. The budget states that the deficit had increased from Rs. 494 crores when it was presented to Rs. 596 crores today because of the addition of many new schemes when the demands were noted. The finance minister referred to the subsidies being increased in PDS, that 48.15 per cent of the revenue account was towards salaries, 28.98 per cent went towards subsidies, grants, concessions, interest on loans absorbed 11.68 per cent and the noon meal scheme 3.48 per cent. Hence less than 10 per cent was left for development schemes. While all this special pleading is important for a review of the union-state financial relation in the long run, the 1992-93 budget deficit calls for action now on reducing the deficit arising from foodgrain prices and distribution through PDS, the deficit for electricity and free power to farms as earlier referred to. These reductions will be painful but must be undertaken to promote the states' development and protect the weaker sections. Towards the end of the budget session, the chief minister intervened and announced an income ceiling for drawal of subsidised rice by card holders in PDS. From June 1, only those card holders whose monthly income is Rs. 750 or less will be eligible to draw rice. At present, subsidised rice is supplied to all 1.25 crore card holders, irrespective of their income. Even those supplying paddy to the government procurement centres are now drawing rice rations from PDS. Hence the total subsidy on rice is now Rs. 340 crores. This will now be withdrawn from all those whose income is above Rs. 750 per month and all land owners owning land more than 2.5 acres. This will both reduce the burden of the subsidy and make rice available to the poor at subsidised prices. The government announced a reduction in the price of the fine and super fine rice from Rs. 3.50 to Rs 3 per kg. The effect of this on the subsidy will have to be worked out. If the income ceiling is maintained it would be a great and important move in the direction of both reduction of subsidy and concentrating PDS to the really poor. But the whole proposal turned out to be a fiasco on the day after, with the chief minister withdrew the scheme, because she said, of public opposition. She could have anticipated this. With the reduction in the price of fine and super fine rice distributed

through PDS, the only effect of the whole affair is to raise the government subsidy from Rs. 340 crores to Rs. 400 crores a year. After the general discussion on the budget, the finance minister announced that the surcharge on motor vehicles is reduced from 25 to 10 per cent, proposed a 10 per cent cut in administrative overheads as one means of cutting the revenue account deficit which now stood at Rs. 806.73 crores. The revenue minister in his reply to discussion of the demand for grants announced tax exemption for computer software and reduced from 5 per cent to 2 per cent the tax on imitation jewellery. The finance minister presented to the Assembly the final supplementary estimated for 1991-1992 providing for Rs. 2300.60 crores in the revenue account and Rs. 1308.26 crores in the capital account, for repaying Rs. 1,167.70 crores to repay the ways and means advances, Rs. 1709.10 crores as subsidy to the Tamil Nadu Electricity Board, Rs. 39.98 crores as subsidy to small and marginal farmers, Rs. 47.90 crores to repay NABARD, the states share of the Debt Relief Scheme, Rs. 41.56 crores for free supply of dhoties and saries to the urban and rural poor and Rs. 30 crores to convert loans under the state's integrated urban development projects and small and marginal projects. The government announced in the Assembly the setting up of a 6 member committee chaired by the managing director of SIPCOT to suggest simplification of the sales tax system as earlier announced, to study the administration of the various Acts and propose reforms to mitigate the hardship of the trading community.

The Annual State Plan

Discussions between the Deputy Chairman of the Union Planning Commission and the chief minister around the middle of April in Madras indicated that a) the state's VII Plan expenditure was Rs. 6236.24 crores against the Plan outlay of Rs. 6180 crores, b) during which period there was - 10.57 per cent shortfall of expenditure on energy (Rs. 209 crores), 26.87 per cent shortfall on irrigation (Rs. 25.67 crores), c) the VI Plan Tamil Nadu per capita plan outlay had been lower than the all India average. During the VII Plan, Tamil Nadu's average per capita plan outlay was Rs. 1077 against the all India Rs. 1054, and d) the state's annual Plan for 1992-93 is, as pointed out in the last issue, Rs. 1751 crores, with the Union support amounting to Rs. 1955 crores. For the VIII Plan, it was agreed that outlay will be Rs. 10,200 crores with a thrust on agriculture; industry and power, with Rs. 1657 crores - all at 1991-92 prices. The Union support would comprise i) the share in market borrowings, ii) externally aided projects, iii) negotiated loan and iv) plan revenue grants. The state's resources assessed would include a) contribution from its public sector, particularly the TNEB, b) miscellaneous capital receipts, c) collection through small savings d) provident fund and e) ARM which is expected to be Rs. 2500 crores. The priority in the State Plan, as just pointed out, will be energy, agriculture and allied activities, industry and minerals, science & technology, rural development and irrigation and flood control. The allocation for the energy sector showed an increase of 134 per cent, agriculture and allied activities an increase of 133·59 per cent, industry and minerals 5 per cent, science and technology 81 per cent, rural development 60 per cent and irrigation and flood control 5 per cent. Tamil Nadu, along with MP, UP, Bihar, Kerala, Orissa are classed as states which despite the high plan outlays that they have fought for and obtained, fail to generate resources to meet their 1992-93 targets. In fact some states were repeatedly running overdrafts over 12 times, against the NDC decision, because of their revenue receipts fall far short of their revenue expenditures. While the budgetary support to the union plan declined from Rs. 19,000 crores in 1991-92 to Rs. 18,500 crores in 1992-93, in support to state plan increased from the revised estimate of Rs. 15,361 crores in 1991-92 to Rs. 16,149 crores in 1992-93. The total resource transfer to states was Rs. 4000 crores over the previous year, despite the decline of Rs: 1300 crores in the share to states of the small savings schemes.

Climate and Prices

March and April were a period when the weather began to get warm with the temperature shooting up above 4° celsius from mid April. Many parts of the state in the south, notably Tuticorin, Coimbatore, Nilgiris suffered from water shortage and the government had to take emergency measures. On prices, CSO's monthly abstract for November shows a) the index number of consumer prices for industrial workers remained near stagnant at — .1 point in August, b) for agricultural labourers on the other hand index shows a sharp rise of 13 points (1.7 per cent) due to the shooting up of food prices from 905 in July to 922 in August, and c) for urban non employees there is no report beyond that for May which shows no inflation and which was reported in last month's issue.

Power

The Power situation in Tamil Nadu in March and April was normal. One good development in this period was that the 10 per cent cut on energy demand- the only restriction that was left, was removed on March 26. The hydel reservoirs have now storage equal to 1180 MU as against 2393 MU total capacity. This is satisfactory. Because of the problem of transmitting power to the interior areas, 14 per cent of the available power in the state were used by industry and agriculture. It is 400 and 800 KV transmission lines that are needed. By the end of the VIII Plan, Tamil Nadu is expected to face a power shortage of 11 per cent, but with improved transmission and the private sector being brought into the area, this deficit can be met. The recent decision of the government to vet all contracts for tenders above Rs. 1 crore will cut corruption, but the emergent delay in approving contracts, is delaying projects. The Power Finance Corporation states that its assistance to Tamil Nadu of Rs. 70 crores in 1991-92 can be doubled in 1992-93 if sound power projects are presented by the State Electricity Board. The Corporation has asked Tamil Nadu to revise its tariff periodically so that the rising (input costs can be met from its resource. The Department of coal and power are examining projects aimed at tapping the huge lignite deposits in Mannargudi in Thanjavur which can help develop lignite based power capacity of 8000 MW. This is an area where the private sector has to become active because the investment needed over time would be Rs. 5000 crores, which the government cannot afford or find.

The power situation in the country is difficult. In addition to Karnataka and AP which face power shortage and power cuts, Kerala government has placed restrictions on electricity consumption for domestic and industrial

consumers introducing a half hour load shedding and 20-40 per cent cut during peak hours because af the lack of rains and the difficult summer. On the other hand, with the high 70 per cent plant load factor and the profits of its several units adding up to Rs. 1000 crores for the year, NTPC has become a leading power entity and is attracting a number of large foreign firms like Asea Brown Bovine and Siemens. This opens up the power field to the private sector. NTPC is negotiating a $ 1 billion loan from the World Bank, which opening is important because the loan is for power development in the country and not tied to any project. In this connection, the decision of the Power Ministers Conference to levy a minimum power tariff of 50 paise per unit for the agricultural sector will ensure the statutory minimum returns or 3 per cent on net assets. All this should encourage the option in the power sector to allow private parties to build, operate and own power plants in the country. This should override the option of the 30 year license, extendable by a further 20 years, brought in as an amendment of the Electricity Act of 1912. ADB is doing its share to increase power supply, its loan of $250 million is to assist in the economic and industrial development of the country and is being channelled through the Power Corporation. The coal shortage which larger power plants including NTPC complain about can be met by switching over to oil. This could also be funded and aided by the private sector which will be buoyed up by the two part tariff referred to above, plus the liberal 4.1 debt equity norm, the guaranteed 16 per cent return on equity and the facility to repatriate profits fully. But these are not adequate to attract the private sector, which as of end April have only 1000 MW under active implementation. plus proposals for 8000 MW, with about half with foreign investment. Most of them are held up awaiting environmental clearance or undergoing viability studies, which means there will not be much addition to IX Plan, when 10 per cent of the additional generation capacity is all that is likely to materialise. Hence to increase private sector participation there should be real tariff rationalisation which means consumers must bear the true cost of power, the return should be higher than the guaranteed 16 per cent and some commitment of levels of offtake of power generated by the private sector. Probably what is needed is, to allow the private sector to develop their own transmission and distribution network under the broad guidelines laid down by the power ministry. The integrated rural energy development programmes started in the VII Plan is now being extended to 200 blocks and is to cover 100 blocks per year during the VIII Plan. This is an urgent programme to meet the needs of power in the rural area and stop the large scale deforestation, soil erosion and loss of soil fertility. Under the programme, macro level plans are being developed to determine the rural energy programme mix, using both conventional and non conventional energy. The question is raised as to how saving out of the $400 million World Bank credit to the National Power Transmission projects in the country should be used for transmission projects in the rural energy programme. That programme needs funds and has a high priority.

Water

The state's water supply position varies. Madras has enough water supply to maintain the 55 million gallons per day till the next monsoon in October-November. On the other hand, the falling water level and the water salinity conditions in some of the interior districts have been earlier referred to. Hence some 15 new desalination plants are being set up at Ramanathapuram district at a cost of Rs. 1.8 crores in addition to the existing 10 plants. Under the Union government drinking water programme, Rs. 2.8 crores have been spent in Gonakudi village benefitting 30,000 people in 91 hamlets. The falling water table makes the winter irrigation programme important and on this NABARD computed minor irrigation loan programmes for the state at Rs. 59.23 crores for this year and Rs. 239 crores upto 31 March 1992. The main source of pollution in the state's coastal areas is the disposal in industrial wastes and sewage, surface runoffs from cantonments, rivers and thermal discharges from cooling towers of power plants, states an Ennore-Kanyakumari survey.

Housing and self sufficiency

The government announced in the Assembly that in 1992-93, 1.10 lakh houses are to be made available by various government agencies at a cost of Rs. 341. 19 crores - with the Housing Board spending Rs. 140 crores, Slum Clearance Board Rs. 40.15 crores, housing cooperative Rs. 138.04 crores, and the housing department Rs. 25 crores. In 1992-93 Rs. 48 crores have been alloted for housing, Rs. 41.32 crores for construction of 5779 houses in small and medium towns during 1992 and 5000 tenements at a cost of Rs. 25 crores by the Slum Clearance Board. Exemption of the urban land ceiling act is to be granted to those who come forward to join MMDA's pioneering urban development scheme under which loans are to be extended to plot owners to develop plots into house sites. The government states that the house tax is to be levied on the basis of the plinth area which will encourage house building and house owning. An effective self sufficiency scheme with an outlay of Rs. 150 crores is to be implemented in 647 town panchayats, which will cover a period of 3 years provide basic amenities including Trade complexes; community halls and adi-dravidar housing. The 1992-93 housing and rural self sufficiency programme are likely to boost the state's urban and rural infrastructure.

Communication

Under the states urban development project, World Bank assistance is being used to develop 11 additional road works at a cost of Rs. 33.77 crores. The Southern Railway reports that it has completed the electrification of the broad guage to Erode and between Jolarpet and Bangalore. This electrification of a stage of the trunk route will promote greater volume of trade and commerce. The state government reports that it is floating a corporation to expedite work on the Luz-Tambaram sector of the Mass Rapid Transit System (MRTS.) The project cost of Rs. 190 crores of the corporation is to be raised through financial institutions and entrepreneurs. This should help ease not only the traffic congestion in Madras, but will also increase the trade movement in the city. A new E-10 B Digital main electron telephone exchange with 4000 lines is to be commissioned at Kelly's in Madras. This is the 23rd electronic exchange in Madras, and all the lines from Kilpauk exchange will be transferred to the new exchange. The users are waiting for some improvement in the city's telephone service which is not yet viable.

Madras Port Trust

The Madras Port has achieved a remarkable throughput of 25.04 million tonnes of cargo for 1991-92. On this basis it has drawn up a Rs. 1060 crores VIII Plan which includes Rs. 610 crores for developing the satellite port of Ennore for handling coal, chemical and bulk cargo for which private participation is being sought.

District Plans and disinvestment

The annual credit plans for all the districts have been computerised. This should make credit available meet the entrepreneurs, agriculture and trade demands more effectively. The Tamil Nadu has become the first state to have its annual credit plans fully computerised. Their effect in its agricultural and industrial development will thus be watched with interest. The state government states that it is considering a proposal to send to the union plans to disinvesting some of its public sector shares through its stock exchange. The list of the concerned firms are to be finalised when the union approval for the disinvestment is received. Meanwhile the government at the end of April signed a memorandum of understanding with the Trade Fair Authority of India for the setting up of permanent Trade Fair complex at Rs. 28 crores.

National

Plan

On the Plan front, two events should be noted. First the Planning Commission announced on April 1, the formal launching of the VIII Five Year Plan - April 1, 1992 to March 31, 1997 on the basis of the broad parameters which is to be presented for approval by NDC in May. It assumes an annual inflation rate of 7.5 per cent which is similar to that of the VII Plan. Second, the 1992-93 Annual Plan is fixed at Rs. 79,698 crores, which is 12 per cent more than last year. Of this, the union sector's share is Rs.48,341 crores and states and UTs Rs. 31,291 crores. The budgetary support for the union and state sector has been set at Rs. 33,887 crores. As the private sector has entered those previously reserved for the public sector like power, the funds so released for the government will be used in other socially important sectors. But for 1992-93, the private sector will not come rushing and it may contribute only 3000-4000 MW out of the total anticipated addition of 38,000 MW. Again the 12 per cent increase in the Plan outlay for 1992-93 has to be set off against the inflation of 12-13 per cent. Further it is pointed out that the financing of the Plan will be through non inflationary means, which means keeping the RBI credit to government down. Further while the VII Plan which had relied on large external borrowing, the external support of the VIII Plan will be 1.4 per cent of GDP (totalling Rs. 49,000 crores for the Plan period) based on an annual export growth of 13.6 per cent and import growth of 8 per cent of GDP. Of the $ 4 billion external support, $ 2.5 billion will come as external assistance and the remaining $ 1.5 million through NRI, external commercial borrowing, foreign investment, portfolio investment etc.

Prices

Inflation on a point to point basis during February was 0.3 per cent, the wholesale price index standing at 215.2 during the week ended February 29. Prices of food articles - bajra, ragi, jowar, fish, maize and milk rose during the month, as did the prices of viscose staple fibre, cotton cloth, and filament yarn' actyline which also pushed up the prices caustic soda and sulphuric acid. The annual inflation rate as at February 29 when the union budget was presented was 13 per cent and for all of 1991-92 was over 13 per cent compared to 12.1 per cent in 1990-91. In March, the rate of inflation on a point to point basis was 0.6 per cent, the Wholesale price index standing at 216.4 on March 28. The fall in prices of food items was cancelled by increases in other sub groups-beverages, tobacco, textiles, paper, rubber, chemicals, basic metals and machinery. Prices of more than 27 commodities out of 447 which constitute the whole sale price index registered increases. Inflation for the year worked out to 13.17 per cent. The liberalised monetary policy of RBI for the first half of 1992-93 to be referred to in the next section is aimed at reducing the inflation rate from 12/13 to 8 per cent and at curbing the monetary expansion from 18.6 per cent in 1991-92 to 11 per cent in 1992-93, besides aiming at reviving industry and agriculture and stimulating exports.

Budget, monetary policy and stock exchange

The Finance minister announced concession in regard to indirect taxes in the course of his reply to the debate on the budget. The concessions amount to Rs. 245 crores through adjustment in customs tariffs on project imports—general machinery lower rate of duty on capital goods components and fuel efficient light commercial vehicles. Income tax payers who were expecting a rise in the exemption limit and restoration of tax exemption on various savings were disappointed. The budget has already helped them but they want more. Parliament passed the railway budget for 1992-93 after the government made concessions for suburban fares. It rejected 1300 cut motions. The RBI governer announced on April 28, the lean season's credit policy, including discontinuation of the 10 per cent incremental cash reserve ratio, reduction in interest on banks cash balance with it, and withdrawal of incremental nonfood credit deposit ratio, lending deposit and export refinancing rates are being rationalised, restrictions on consumer durables are being relaxed, selective credit controls are being tightened, the limit of certification of deposits are being increased, commercial paper terms of issue are being liberalised and a new scheme of money market, internal funds and larger maturity treasury bills on available basis are introduced. Besides the Mutual Fund for the money market to be set up by banks and financial institutions, the Basle committee capital adequacy and prudential accounting standards have been made compulsory for Indian commercial banks as recommended by the Narasimhan committee. The following 6 months when the policy will be implemented will be watched to see if inflation is curbed, production at a high level and export expansion are expanded. If the RBI's plan to reduce sharply credit to government, more resources should flow to industry, agriculture and trade and the economy should begin the process of revival. RBI also reports that Indian commercial banks deposits equal 35 per cent of GDP. In the stock exchange, there were 2 major development in March/April. First, the Bill Freezing continued unabated sending up the Bombay Sensitive Index to near 4000 and no controls by the stock exchanges or brokers could srop this unstable movement up. Second, SEBI acting on the

provision of its Act, at the end of April enforced the clause for all stock brokers to be registered with it. This led to a revolt by all stock exchanges who stopped work completely for over 6 days. The chairman of SEBI has taken up with the government the question of repealing this provision. While there is need to curb the frenzied and illegal activity of the brokers, whether this should be done by forcing them to register again with SEBI, each stock broker is already registered with an exchange filling in all the requirements. There is some reasons on their side. On the 6th day, a settlement was arrived at by all the 6 members from April 24, on the basis of a final decision on SEBI being made known by May 15.

Government's total debt has increased by 12 per cent at Rs. 3,95,038.58 crores in 1992-93, when the internal debt is Rs. 188,019.11 crores while external assistance is Rs. 39,564.61 crores. Two supplementary demands were approved in March eve as partial approval for 1992-93 budget. The government in early April announced 2 additional instalments of DA to union government employees due on July 1, 1992 and January 1, 1992. On April 29, Lok Sabha applied the guillotine to 39 ministry demands and voted their 1992-93 grant totalling Rs. 2,33,398.91 crores.

Economy

On the economy, Indian government and World Bank estimates of the economic growth for 1991-92 is at 2-3 per cent with the likelihood that the rate will also continue for 1992-93, depending on the monsoon. Here it should be noted that two arms of the government give differing pictures. The finance ministry's annual report for 1991-92. says that the year witnessed a distinct turn around in the BOP seen in the steady build up in the foreign currency aasets, restoration of international confidence and a down turn in the annual rate of inflation as a result of the prompt steps taken by the government. Foreign Exchange Reserves which dropped to Rs. 3353 crores ($ 1.3 billion) in June 1991 rose to Rs. 20,307 crores ($ 7.84 billion) by February 1992 including foreign currency assets of Rs. 10,791 crores ($ 4.16 billion) because of the restoration of international confidence through a comprehensive adjustment package, involving exchange rates adjustment, fiscal correction and structural reform in trade and industry. Despite the fall in industrial production and GDP growth rate, the infrastructure performed well and this assures quick industrial revival. The annual rate of inflation which was 16.7 per cent in August 1991 fell to 12 per cent in February 15, 1992. The 2 schemes to attract foreign exchange, the Remittance Scheme and Indian Development Bond Scheme—both in 1992 fetched $ 2.46 billion (Rs. 6400 crores). To meet the current account deficit, set back in NRI deposits and commercial borrowing due to the down grading of India's credit rating, $3 billion was borrowed from IMF under its various facilities, 500 million as structural adjustment loan from the World Bank, $ 250 million from ADB and $150 million from Japan. On the other hand the Annual Report for 1991-92 of the Planning Commission visualises a sharp decline in GDP for 1991-92 and warns of the "adverse repercussions of the spill over problem" on the implementation of VIII Plan. It envisages a 2.5 per cent growth for 1991-92 which as the threshold for the VIII Plan will have spill over effects for the remaining 4 years of the Plan. The government reports that unlike in 1988-89 and 1989-90, in 1991-92, the infrastructure sector - coal, steel, crude and petroleum and power attained their targets. A curious correlation established by both Indian and foreign securities firms is that when the economy moves into a high growth trajectory, the stock exchange frenzy will disappear and the bubble which is the Indian capital market could burst. The slow down in economic growth has resulted in excess liquidity in the economy which is now channelled into the stock exchanges. As the economy picks up, this liquidity will be diverted to the revival of industry and expanding agriculture and the stock market activity will cut down and become normal. The government reports that the year 1992-93 is beginning with foreign exchange reserves crossing $5.5 billion (Rs. 14,000 crores) (enough to cover 4 months imports) and this move is continuing all through April. An import surge is expected by the middle of this year, which will use a part of these resources. Further foreign investments are also booming, with Rs. 1000 crores having been cleared, and Rs. 2000 crores proposals waiting clearance. Germany and Japan are getting ahead US in terms of fredsh investments. In April 5 Germans who are already operating in India report that they are planning fresh further investments of Rs. 2000 crores (1 billion Deutsch Marks). Government reports that it will provide full convertibility for the entire export earnings at market rates to 100 per cent export oriented units, export promotion zones and free trade zones. The large foreign reserves will also enable India to meet the country's crude oil import requirements, from Saudi Arabia in 1992-93 five million tonnes of crude are being imported-2 million more than that of the previous year. The government announces that for the first time the import of second hand capital machinery under OGL is to be allowed for 17 industries because of their sizeable contribution to exports. This is a curious decision and even more curious explanation. The effect on the Indian capital goods of the measures should be one over the criteria in the selection of the 17 industries which are allowed to this OGL facility. With a view to promoting rural development and ensuring the application of science and technology in it. DST has recognised 11 centres of excellence and has provided Rs. 1 crore for ensuring that top scientists and technologists are working under these grass roots organisation. Further, the application of improved technology through the oil seeds technology has resulted in a large rabi crop of rape seed and mustard of 6.6 million tonnes. This bumper harvest has brought oil prices down and strengthened the plan of NDDB for buffer stocking. One of the negative but realistic developments reported is the absence of interest of the urban slum dwellers in the Nehru Rozgar Yojana. In Tamil Nadu, for instance, in 1990-91, against the target of assisting 30,000 slum dweller families for which Rs.800 lakhs were allocated, only 2000 families took advantage of the programme and the total loan disbursed was not one tenth of the sanctioned amount-Rs. 72.62 lakhs. The slum people were not interested in the programme which gave them a small amount of Rs. 4000 as loan. The record of repayment of loan was poor also reflecting their lack of interest of the beneficiaries. This is a familiar story but the lessons have not been learnt and incorporated under the programme. The 1991-92 Annual Report of the statistics department reports that during the decade 1980-81 to 1990-91 the average annual growth rate of GDP was 5.6 per cent and per capita income 3.2 per cent. During this decade there were structural change in the economy, the share of the primary

sector in GDP falling from 39.6 per cent in 1980-81 to 33.6 per cent in 1990-91, the share of the secondary sector increasing from 24.4 per cent to 27 per cent and the tertiary sector from 36 per cent to 39.7 per cent during this period. The government announced the setting up of a 3 man committee chaired by H. N. Ray to review and recommend as appropriate the results on wages, DA and perquisites of employees of union government, public sector enterprises and nationalised banks.

Industry

News on the industry front in March/April is in the main negative. The industrial growth in 1991-92 is estimated to be zero against the 8.5 per cent growth in 1990-91, contrasting the Economic Survey's perspective of a 3 to 4 per cent growth. The data from April to November 1991 shows that industrial growth was — 0.9 per cent in that period and for the remaining 4 months if it is not negative, it will be zero growth for the year. Infact the quick estimate of the index of industrial production for December shows — 1.8 per cent for October, with a decline of 3.7 per cent in manufactures. Within this g oomy perspective, it should be noted that the corporate sector during 1990-91 has maintained a steady and lasting growth as between 1956-57 and 1990-91. This brings out the difference between taking a short term view and the long term perspectives. On the short term negative side, 41CV makes have stopped production following the customs and excise hike on the recession hit industry. Further in the 4th round of national and international bidding for gas and oil exploration has attracted only 16 companies for the 79 blocks that had been offered for bidding. The Narasimhan committee recommendation as cutting back on the priority sector lending by commercial banks, overlooks what the priority sector has done in the 2 decades increasing lending in agriculture from 2 per cent to 20 per cent of bank credit and retail trade from 2 per cent to 8 per cent—is really a call for refashioning the priority sector or redefining it and the methodology of grass roots credit planning. The government has set up a committee under the chairmanship of V, Krishnamurthy to study alternative modalities of selling PSU shares. The union government is studying a proposal for transferring to the private sector 40 SISI extension centres, as an alternative to closing them down. One of the most serious problems being faced by government and ministry, is that liberalisation has not unleashed market forces and encouraged price competition, but cartels and monopolies and oligopolies have entered those areas vacated by the public sector or the department of the government, particularly in areas like cement, tyre, soap, toothpaste and medicines. It will be noted that cartels have moved into the areas of consumer durables and are making enormous profits. It is to be hoped that the government notification of standard input-output norms for 1514 items under the duty exemption scheme will restrain this trend. In this context, the plan of Mitsubushi to float a Rs. 150 crore glass manufacturing plant, can be a soft area for the location of consumer durables by the multinationals. RBI reports that Rs. 9353 crores are locked up in sick industrial units — Rs. 4539 crores in large units of which 497 units were found to be viable, and for 294 of them a nursery programme is under way. On individual industries, the government informed Rajya Sabha that in the period April-October 1991 the engineering industry recorded a decline of 6 5 per cent in growth. In 1991-92 India's sugar production is estimated at a record 120 lakh tonnes. The Rajya Sabha was informed that Rs. 7000 crores have been earmarked for textile modernisation, of which Rs. 250 crores are for modernisation of powerlooms. Textile machinery is to be imported at concessional terms for the modernisation programme. NLC recorded a high performance in 1991-92 generating 8,00,908 units of power, briquetting and carbonisation 2,70,213 tonnes, urea production 1,52,000 tonnes and the services of all its new projects-TPS,-Mine-II expansion and TPS-II and revamping the briquetting and carbonisation plant.

Public Sector Enterprises

The 1990-91 Public Enterprises survey tabled in Parliament in early March, showed a 38 per cent fall in net profitability in 261 public sector units attributed to low production of crude oil, rise in wages and input costs, and the Gulf crisis. MOU are still lagging in implementing and targeted at 130 for 1992-93, restructuring of public units are aimed at improving their efficiency and profitability. Public sector investment increased in 1990-91 by Rs. 13,904.38 crores, 14 per cent, gross sales rose by 12,286,37 crores, value addition from 2,82,207.70 crores in 1989-90 to Rs. 31, 757.17 crores in 1990-91. Gross internal resources generated by PSU in 1990-91 increased by Rs. 600.48 crores, but retained profits in internal resource generation fell by Rs.515.98 crores. The major defect with this report is that it uses the market measures to assess the work and contribution by PSUs, and so falls into trap of seeing them as wasteful, whereas their value is that they have been the major means of providing the poor and weaker sections of the economy through its infrastructure, materials, employment, their essential well being. The government announces that it is prepared to invest Rs. 25,000 crores that are needed to rehabilitate 58 "chronically sick" units. Before this investment is made all other parameters including their management and workers productivity should be examined and in light of which the investment should be made. The government announced in Parliament that foreign equity investment upto 49 per cent will be allowed to finance technology upgradation and expansion programmes. While there is a case for using foreign firms for technology upgradation, there is no case to club expansion along with it. The government has authorised PSUs to raise Rs. 6058.10 crores through issue of bonds and debentures during 1992-93, which is only Rs. 327 crores above that raised in the previous year-1991-92.

National Production Front

Steel

The year has registered positive and negative elements in the steel front. The positive element is that SAIL plants report a record output of 8 million tonnes in saleabls steel, which was a 9 per cent growth. It also crossed the 10 million tonnes in hot metals and 9 million tonnes in crude steel production. The negative part is more serious because it refers to regenerate the future. The 1992-93 budget makes no provision for a real increase in steel investment, it increases the budget by a small Rs. 61.74 crores to Rs. 3072 crores to be sustained by budgetary support of Rs. 287 crores and internal resource generation and external budgetary resource mobilisation of Rs. 2785 crores. This rather skimpy investment — covers IISCO and all SAIL plant and even TISCO. Further

it is to be noted that apart from reviving IISCO, there is no provision for a new steel plant in the VIII Plan. This is serious and will result in a setback level to steel production in the VIII Plan. The Planning Commission's task force computed that Rs, 10,000 crores investment will be needed during the VIII Plan to increase iron ore production from the existing 56 million tonnes to 80 million tonnes by 1995-96 and 100 million tonnes by 2001 to sustain the steel production of 24 million tonnes in 1995-96 and 30 million tonnes in 2001. But the budget proposal makes all plans commercial. The only small hope is that as the steel sector has been delicensed, the private sector will enter and set up secondary sector steel and sponge iron plants which, not having their own captive mines, will have to depend on independent mines which will not attract the needed investment, given the rise in railway fares and the general budget slant against large investments.

Crude

A major development in the crude sector is that the market of petro goods has been thrown open to the private sector, including foreign which may be some counter weight to the increasing petro goods bill and that we have to meet. For 1991-92 crude imports amounts to Rs. 13,000 crores for 24 million tonnes of crude. However the monthly import bill has been declining and this declining trend of petroleum imports and increased petroleum production record an hopeful feature. It is hoped that on this basis the 1992-93 share of the import bill of Rs. 16,800 crores, which is an increase of Rs. 4300 crores may prove to be a miscalculation. But there is a problem of a mismatch between the product mix to be processed by the refineries and demand, so that it is estimated that there will be shortfall of 1.56 million tonnes of motor spirits during the VIII Plan. This calls for among other things, more careful planning including the technological data. ONGC reports rich new oil finds in Bombay High and gas and oil fields in the Godavari delta.

Coal

CIL's cash and carry scheme is beginning to bite, between October 1991 and January 1992, Rs. 1414 crores were collected, leaving Rs. 1800 crores to be collected. It is working well and the coal target of 203 million tonnes is being surpassed, as does its profits for the year. For the gas project at Aurangabad which requires Rs. 2800 crores as investment, the private sector is being approached, so that the gas development will be based on private sector investment which is good. COPU has criticised CIL for its cumulative losses amounting to Rs. 2500 crores against the investment of Rs. 9000 crores.

Non Ferrous

Aluminium output in 1991-92 has reached a record 8.1 lakh tonnes which is 60,615 tonnes more than of the previous year.

Agricultural Production

News on the agricultural front are somewhat confusing. There are the government reports to Parliament that the 1990-91 total foodgrain production is 170 million tonnes, which has not prevented the government fixing the 1991-92 target fixed at 182.5 million tonnes. The annual report of the union food ministry states that during the 1991-92 rabi marketing season wheat procurement has slumped to 73.52 lakh tonnes against the previous rabi seasons procurement of 110.65 lakhs and 73.65 lakh tonnes of paddy has been procured during the 1991-92 kharif marketing season compared to 85.63 lakh tonnes during the previous year. The report attributes the lower procurement to the higher level of open market prices. This may be one reason why the minimum support price for wheat has been raised by Rs. 25 per quintal to Rs. 250. This means that the government is offering a bonus of Rs. 25 per quintal to every farmer selling wheat to DFCI or one of its agents. The 1991-92 kharif shortfall is estimated at 3 6 million tonnes. The government reports that its wheat procurement at 4.55 lakh tonnes is ahead of last year's 1.33 lakh tonnes. The question of importing wheat is still undecided as at the end of April because of the price factor and the increased procurement prospects. ICAR reports that during the VIII Plan its thrust areas will be a) training of agricultural scientists for transfer of technology projects to farmers and b) a system approach to farming involving integrating the new technology. According to a survey, the rural demand for consumer durables and goods are fast increasing. They cover 48 per cent of all mopeds sales, 35 per cent of black and white TV sets, 46 per cent two in ones, 43 per cent of detergent sales. The rural demand for packaged consumer goods has increased from 28 per cent in 1985 to 40 per cent in 1990 — by Rs. 2000 absolute terms. If this data are confirmed by NSS, there is evidence of a middle class rising in the rural areas who should be taxed like their urban counterparts.

The New Export-Import Policy

The new policy substantially eliminates licensing and discretionary controls by introducing negative lists of imports and exports, liberalises the imports of capital goods (including second hand capital goods as earlier referred to) and offer a new deal for EOU and EPZ also referred to earlier. The policy is to be valid for 5 years and not for 3 years as previous policies, which means it will be coterminous with the VIII plan. The main points in the 5 year policy are : a) trade is free, subject to a negative list of imports and negative list of exports, b) stable policy for 5 years 1992-97 to ensure simplicity and transparency: c) negative list of imports smallest even with consumer goods under restraint: d) import of 3 item banned, 68 items restricted, 8 items canalised: e) special import facilities for hotels, tourism industry and sports books; f) negative list of exports pruned: seven items banned: 62 items subject to restrictions and 10 items canalised· g) export of 41 items permitted with minimum regulation: h) negative list on licensing to be administeted by general scheme, with case by case licensing minimised: i) actual user conditions for issue of license eliminated except for a few special cases: j) import of capital goods liberalised, no longer in negative list of imports: k) second hand capital goods allowed, in some case with license and others without license. l) export promotion capital goods (EPCG) scheme liberalised with 2 windows opened for concessional duty imports: m) EPCG scheme extended to components of capital goods, with concessional customs duty: n) Raw materials imports liberalised, barring a few items, no longer in negative list of imports: o) value based advanced licence introduced: p) self certification advance to licenses available for export houses, trading houses and star trading houses: q) all licenses under duty exemption scheme are transferable: r) existing scheme for gems and jewellery and diamonds continued: s) EOU and EPZ scheme liberalised, extended to agriculture, horticulture, acqua culture, poultry and animal husbandry allowing inter unit transfers, and permission to install machinery on lease and EOU/EPZ units may export through export houses, trading houses and star trading houses: t) definition of deemed exports streamlined, supplies to EOU/EPZ units, supplies against EPLG licenses and supplies against advanced licenses will be deemed exports. Crucial role of EPCs, export houses, trading houses and star trading house recognised: importer exporter code number is basic requirement registration and membership certified (RCMO) by EPCs is basic requirement for benefits and concessions under new policy. u) 3 categories eligible for special import licenses namely, i) deemed exports ii) export houses, trading houses and star trading houses and iii) manufacturers with ISD 9000 or BIS 14000 certification, v) national campaign for quality will be launched and laboratory and testing houses to be upgraded and accredited: and w) hand book on the new policy will be published on 1 May 1992 and procedures will be simple, transparent and easy to administer. A first reaction to the 5 year policy is in the whole positive. It relieves the country's external trade from a plethora of controls/regulations: it is simple in conceptualisation and easily comprehended as the above summary shows, compared to earlier 3 year policies. It aims at being even handed between different industries and trading groups. Questions on the policy relate to its being much more on import liberalisation policy and not primarily export priority focussed policy. This is serious because the country's new economic policies and programmes are founded on the assumption of a vigorous

and expanding export trade. But for a major export expansion, not only is liberalisation of imports needed, much more is the need for quality products and on that the policy says little. There is a brief mention of quality at the end, what it involves for industry, agriculture, trade and the government is not spelt out. The import of second hand machinery has been earlier referred to: but the essential condition for the import has not been recognised, and that is, must be employment generating. These are some imponderables on which only time will give the answer. For instance, imports under the old OGL and the limited permissible list are clubbed together and will all be demanding foreign exchange. This will harden the dollar and hold down essential imports which will become costly. This is import compression in a different guise, though the policy talks of free trade. Again to increase foreign exchange earnings of our exports, the conditions for advance exports have to be eased. The policy does not refer to this. And finally the commitment of the importer to export over the year enough to cover the import cost and give foreign exchange earnings some additional resources. But this will apply only to a few processing industries, which are not the major generators of exports and foreign trade.

Foreign Trade and Balance of Payments

According to government, the country's trade deficit narrowed during the first ten months of 1991-92 (April 1991 to January 1992). During this period, exports declined by 3.1 per cent to $ 14,345 million from $14,802 million in the corresponding period of 1990-91 while imports fell by 21.3 per cent from $ 20,249 million to $15,928 million. As a result the trade deficit during the 10 months narrowed from $5447 million to $1583 million. This contraction was due to the severe import restrictions. There was also a slow down in the growth of imports to the generel currency area. During January 1991 there was a marginal trade surplus of $44 million as exports were $1701 million and imports $1657 million. The rise in export to the General Currency Area during the first 10 months slowed to 5.7 per cent in dollar terms from 6.3 per cent in the first nine months. Exports to rupee payment areas increased, despite the uncertainty in the trading pattern with the ex-Soviet countries, to Rs. 569 crores in December 1991 on to Rs. 556 crores in January 1992. In rupee terms, during the first 10 months of 1991-92, exports went up to Rs. 34,699 crores from Rs. 26,236 crores in the corresponding period of the previous year, marking a rise of 32.3 per cent. On the other hand, imports increased only by 7.4 per cent from Rs. 35,890 crores to Rs, 38,531 crores and so the trade deficit narrowed to Rs. 3873 crores from Rs.39.01 crores in the previous year. There is every reason to believe that when the figures are available for the whole 1991-92, exports will continue increasing and imports decreasing in the dollar area and the rupee payment-area. For the current year, 1992-93, the commerce ministry estimates that the trade deficit will be $4 billion, with exports projected at $20 billion and imports at $24 billion. According to the ministry, the export earnings will cover the merchandise exports of $13 billion, the canalised exports of petroleum and fertilisers will cost over $7 billion. The country's imports, including capital goods, raw materials and components mix is met with the export earning. On March 3 RBI announced that India's invervention currency from that day will be dollar for buying and selling as against the pound sterling which till that date was the intervention currency. This is stated as a consequence to the policy changes under the new Liberalised Exchange Rate Management System (LERMS). RBI also announced later about exchange control regulations for certain categories of persons like those on overseas business visit, self employed professionals, and journalists. Meanwhile the government indicated a sharp lowering of its Direct Foreign Investment target for the year from $2 billion to $600 million due to a) the delay in making an exit policy and helping in the smooth functioning of the industrial relations and b) bureaucratic delay. This later fact should be quickly set right. Among imports, 23 million tonnes of crude oil in 1991-92 and 6.2 million tonnes of coking coal are to be imported in 1992-93. The government expects that the partial conversion of the Rupee will result in $ 1.3 billion foreign exchange shortage by March 31, 1993. The government announced in April duty concessions for capital goods imports. The government also informed the Rajya Sabha on March 3 that the US announced termination of its investigation under special 301 against India. On specific items the government reports a record export of Rs. 169.18 crore during 1991-92 of handicrafts and hand looms, jewellery exports are Rs. 7,182 crores for the year (against the target of Rs. 7000 crores): marine product exports rose to Rs. 1365 crores in 1991-92. Engineering exports in 1991-92 rose to Rs. 3092 crores recording a 19.5 per cent increase compared to 16 per cent growth of other non traditionals. During the year carpet exports exceeded Rs. 700 crores: electronics and software exports were Rs. 1300 crores, a 29.5 per cent growth: export of Maruti cars short up to 22,818 in 1991-92 against 4908 in 1990-91: and textile exports exceeded its targets of Rs. 17,796 crores. With this kind of record, it is possible to face the lowering of tariff barrier and the opening of foreign competition with some confidence.

Aid and loans

In April steps were initiated for the next round of IDA/IDA-10. IDA-9 begun in 1991 with $ 15.5 billion will expire in mid 1993. For IDA-10, to meet the share of India (15 per cent) and new claimants Afghanistan, Ethiopia Albania and CIS-(ex Soviet states) the sum required is $ 17.5 to 18 billion. There is also the new demand of the Environment-UNCED. In March and April loans from the multilateral agencies were in accord with consortium pledges and the various structural and adjustment loans to sharp up the government's reform programme. Thus the World Bank made a structural loan in early March of $600 million: IMF is making available a loan of $150 million, which is the third instalment of the upper tranche of the SDR 1686 million the 18 months share by the government. ADB has made a loan in mid April of $250 million for the power efficiency programme; under IDA 84 million was made available to control AIDS in the country. Large transfer to official reserves of the funds modalised by SBI under India Development Bond scheme, referred to earlier, amounting to $1.60 billion has led to the swelling of foreign currency assets to $5.7 billion from its $3.9 billion in February. The United Arab Emirates has offered a $200 million assistance to help overcome financial problems. The European Commission has granted development assistance of Rs. 163 crores for agriculture and water management in UP and Kerala. The US Ex Imp Bank has worked out lines of credit to SBI, IDBI and IFCI on the lines of $50 million credit extended to ICICI. The credit will cover trade transactions and some of it will pass through India's Ex Imp bank. The international Finance Corporation and the US investment bank will be entering as joint lead managers for Tata Steel's ENU issue, in the form of international deposit receipts of $100 million.

International

World economy

The 1992 Human Development Report of UNDP calls attention to the apparent contradiction between the policy prescriptions for the developing countries by IMFI - World Bank and the actual policy of industrial countries. The report points to the developing countries liberalising and opening their economy, the industrial countries are increasingly closing theirs, and some of the 24 industrial countries are more protectionist today than they were 10 years ago. It then poses a question which is important for India in its current reforms It says if India follows the South Korean pattern of export led growth, it will have $60 billion of additional export surplus. Where would this go" : Globalisation means that the international status and effects of every national action needs to be considered. In the functioning of global market for capital goods, services and labour, with the developing countries be allowed to play their rightful stronger role and so increase their share of international trade so as to increase their production, income and employment. There is need for greater openness in the global market, as referred to. Infact the report is quite frank about the fact that the IMF and the World Bank which were set up to help solve the problems of the countries, have added to the Third world problems. Between 1983 and 1987 net transfers from IMF to developing countries turned from plus $7.6 billion to minus $7.9 billion in 1991 and the World Bank transfers were minus $1.7 billion. IMF and World Bank dismiss this report in saying that a) the figures are taken out of context and b) this was what the reform programme that the countries adopted meant. Infact in a study by IFC, the IMF advises that foreign investment need not be given a tax holiday because they expect to pay a reasonable level of taxes and for this there is no need to favour them over local investors. It is a waste of tax payer's money to send special mission or advertisements abroad unless the investment climate abroad is good. In its advise to 40 developing countries, it is recommended that the developing countries should permit unrestricted transfers abroad of dividends, capital, royalties, fees and repayment of bilateral loans. IMF in its report, World Economic Outlook forecasts that world production in 1992 will grow by 1.4 per cent which lowers the earlier figures of 2.9 per cent in May 1991 and 2.8 per cent in Octoper 1991, due mainly to the slackening of the US economy. The World Bank's perspective of the world and developing countries are a little more optimistic. There will be a resumption of growth by the developed countries, which is important because it points out that a 1 per cent additional growth maintained over 3 years in those countries will mean an extra export revenue of $60 billion for the totality of the developing world. It says that the average growth rate for developing countries world wide, despite their weak performance in 1991 and 1992 is promising. Their GDP is expected to be about 4.9 per cent in the 90s against 3.2 per cent in the 80s. This improved-worsened propsects attributes to the improved policies followed such as the new structural reforms being followed by South Asian and some Latin American countries.

The World Bank—IMF meetings

The 3 day meeting of the World Bank's Development committee and IMF interim committee at the end of April with an emphasis on the need for additional aid commitment of the poorest nations, whose ranks have been increased with the inclusion of Burma, Cambodia, Vietnam and some of the Central Asia Republics of the formerSoviet Union. While the number of the poor between 1955 and 2001 will increase by over 50 million, there is stagnation in the value of concessional assistance. There is a strong case for increasing the resources of IDA to help the increase in the number of poor nations. The proposed $45 billion Bank Fund assistance to Russia and other republics of the former Soviet Union is repeatedly being stated to be not at the expense of India and the other poor countries. But this is merely verbiage. Given the fact that the US is totally opposed to increase in its contribution in this election year and the economic hardships of the European Nations and the decisions not to increase global liquidity through the issue of further SDRs, the question of where this enormous aid to Russia and its sister republics will come except from India, China and other developing countries must be squarely faced. At the meeting the developing countries made a strong case for sharing in "the peace dividend", that is the resources that will be freed by the disarmament. This is a highly speculative stand. Will there be real

disarmament? Will it release resources? Will such released resources go to the countries releasing them or will there be some sharing of them among poor countries? If so what will be the motivation? The Bank-Fund meeting did not face any of these issues. The committees decisions were of a formal nature. It a) reaffirmed that poverty reduction in the context of sustainable growth, is the major priority. The committee of developing countries wants Bank-IMF support to the efforts of developing countries with appropriate technical assistance, policy advise and financial assistance, where necessary to enter new markets.

GATT

April 15, 1992 has come and gone and another deadline to conclude the Uruguay round has been missed. Now there are some face saving statements being made, claiming some progress in negotiation from mid January and calling for completion of the talks by the summer. But this deadline, also will be missed because the US will not make any concession or compromise till after the Presidential elections. Not until the US-EC deadlock over agricultural subsidies is broken will there be the prospect of on agreement in GATT. GATT in its annual report forecasts a "modestly faster growth of world trade". The failure of the predicted pick up in economic growth in 1991 had increased uncertainty and dampened growth prospects for 1992. It is not only the US which did not in 1991 make the anticipated recovery, Japan and Western Europe also recorded an economic slow down. Further the disruption of production and trade in central and eastern Europe and the former USSR and the problems that they are facing in the transformation to market oriented economies had an effect on world trade. Hence at best only a modest pick up could be expected in trade from this year to around 4 per cent in volume terms. In volume terms, world trade grew by 1.5 per cent in 1991 compared to the increase of 13.5 per cent in 1990. Except for Asia, export growth on a value basis slowed in 1991 in all the other 4 regions. Even for Asia, the export growth was limited because of Japan's export growth. In a third report, GATT calls attention to the US openly deploying unfair trade laws to block exports from the developing world. In its trade policy, review it regrets this stride towards protectionism in the US, its sharp increase in so called anti dumping action and its high tariffs on a select group of products. It also criticises the North America Free Trade Agreement which will help US, Canada and Mexico but injure other countries. It calls attention to footwear, textiles, sugar, glass, medical and pharmaceutical products which are all the subjects of high US tariffs. The regional groupings in which the North America grouping is initiated has far reaching negative effects in world trade. Special 301 and other such laws seem to be diverting our attention from the real serious problems created by the US for world trade.

Literacy in the Industrial world

A OECD study calls attention to the wide spread functional illiteracy in industrial countries which ranges well above one third of their work force. This means that in OECD countries, productivity increases that could be realised will not be achieved, until human resources are used in a better way. In the US the labour secretary states that 20 per cent of US high school graduates cannot read their diplomas and a Japanese employee of US labour said that executives could not give written instructions to their workers because 30 per cent of them were unable to read. A 1989 government survey in Canada showed that only 62 per cent of Canadians meet most of every day's reading demands. The German Commission for UNESCO estimates that there are between 500,000 to 3 million illiterates in Germany. One in three workers surveyed at a confactory in Sweden was in need of basic adult education. Hence the industrial countries are advised not to assume that only their immigrants bring illiteracy: they need to carry out educational tests as France does, where it found in the period April 1990 to May 1991 only 80 per cent of young men aged 18-23 called up for military service, could read and understand a 70 word kit. Hence programmes to improve adult literacy is urgent in all countries, particularly the industrial countries and on this research is needed on the most effective methodology to be used. Literacy should also address to the UNICEF finding that 250,000 children die every week and that million more are condemned to "half life of malnutrition and all ill health. This is a form of aparthied of gender because the majority of children who die (10 million) are girls. Women's literacy is thus crucial.

* * * * * *

II. Agricultural Development in Tamil Nadu

Paddy and other crops

In March and April farmers in the state had completed harvesting their samba paddy crop and brought them to the market in Thanjavur. Nagapattinam, Quaid-e-Millet, Tiruchi, Pudukottai and South Arcot districts. The target of procurement for the season was 145 lakh tonnes and farmers have by March end marketed 10.5 lakh tonnes. From First 2 districts - Nagapattinam - Quaid - e - Millet and Thanjavur farmers have used the 720 direct purchase centres for marketing 9.5 lakh tonnes. In Nagapattinam-Quaid-e-Millet alone farmers made available 6.3 lakh tonnes against the target of 6.5 lakh tonnes. In Thanjavur district procurement exceeded 3 lakh tonnes against the district target of 4.5 lakh tonnes. Farmers in these 2 districts have moved about 10,000 to 12.000 tonnes a day, of which 5 lakh tonnes have been moved to the other districts to provide the needed storage space. The Tamil Nadu Civil Supplies Corporation, has been at the service of farmers in the districts in helping to purchase, move to store paddy. This task of the corporation will be even more efficiently performed and the farmers relieved of their stocks quickly as from the next season when the weigh bridge at Peralam and the other at Mayiladuthurai would be ready. Moving the paddy by rail at present involves some delay for the farmers and for the corporation. The farmers are also requesting that a weigh bridge be built in Thanjavur railway station itself, which would in part relieve the railways also who have had to supply 31,000 wagons this season. Farmers in the

Cauvery area are looking forward to the completion of the 2 schemes for modernisation of the Cauvery irrigation system at a cost of Rs. 785 crores. This is being implemented under the National Water Management project which has the double aim of increasing the farmer's productivity and income. Also external assistance through the Union government is being requested by the government for another scheme involving an outlay of Rs. 530 crores for the rehabilitation of the Cauvery delta system. But due to the appreciation of the dollar, the surplus savings of Rs. 17.3 crores are being used to meet the needs of farmers in the Krishnagiri reservoir system which is also being modernised. Similarly work is on strengthening the Periyar dam so that it can hold water upto 152 feet. The ground water survey of the 385 blocks shows that farmers in 43 blocks have a utilisation rate above 85 and in further 75 blocks farmers record a utilisation percentage of 65 to 85.

Research results

In March and April, 92 research reports were recorded. Of these, 7 reports are of immediate interest to state's paddy farmers; first a new mechanical paddy transformer developed by TNAU for use by Thanjavur and Madurai districts farmers. Second, a group of free living blue green algae has been developed by the Centre for bio fertilisers, Madurai-Kamaraj University as effective and ideal fertilisers for rice eco systems. Third, Madurai Agricultural College has developed a chemical weed control using rice variety PMK-1 suitable for semi dry situation: Fourth, Annamalai University, Department of Agronomy demonstrates that irrigation with either channel water or deep bore with soil application of 1:1 gypsum per hectare gave an additional yield of 1.84-to 1.86. Fifth, AP agricultural university shows how to control the white cuckoo plant hopper through 8 steps, starting with proper field sanitation and ending with applying insecticides such as carbofuran granules. Sixth, the Kottayam agriculture field office shows how alternate crops of rice and fish can be raised, flooding the field after harvest with sea waters. Seventh, a Madras agronomist shows how the sheath blight can be controlled using vallotaen 3-an anti biotic. Then there are 8 reports on other cereal varieties; first TNAU's Vemban station on a short duration hip yield redgram which it has developed: second, TNAU's Srivilliputhur station with a short duration high yielding sesame. Third, AP agriculture University Hpderabad discovery on how to stop and reverse seed deterioration in groundnut; fourth, Tindivanam's oil seed research sration's report on a new castor variety, TVC-11, suitable for kharif sowings during the monsoons; fifth, J farms short duration melons are summer crops: sixth, Hoether India, Hyderabad's new Okra hybrid suitable for kharif and rabi sowing; seventh, the Anantapur Agricultural research station which has developed the means of preventing the tikka leaf spot which threatens the ground nut crops: and eighth TNAU's high yielding sesamum variety - SVPR-1. There are reports to help the fruit farmers: UAS, Dharward reports on how the various kinds of fruits flies can be eliminated / controlled: the Horticultural Station, Periakulam reports on how to deal with nematode virus; college of agriculture, Vellayam's Kerala sets both the means of keeping the banana pest in check, and for prevention of leaf blight in coconut. Finally for farmers engaged in animal husbandry there is a plethora of research results; from the college of veterinary science, Tirupathi how to deal with gout in chick; from the Veterinary College, Bidar on how to counter the over eating disease in sheep and how to rear goats with high probability and greater resistance to disease; from the Dairy science institute, Hyderabad on detecting oestrus signs cattle, from the college of Veterinary Science, Tirupathi on how to make duck farming profitable; from TNAU's Krishi Vigyan Kendra, Kattupakkam on how "ova prim" boosts fish production and the means of countering the dummy cow syndrome; from the Secunderabad research station on how to distinguish between true and false femoral head necusis in broilers: from the livestock unit, Ennagunta on fluke control in bovines: from a poultry research institute on how to design poultry cages and houses so as to keep eggs whole: and from IVRI, Izzatnagar on the dangers of the ticks borne threat to cattle and how to minimise it and keep it under control.

Plantation crops

Tea exports have been stagnant but India's share of world tea exports have fallen from 28 per cent in 1981 to 18 per cent in 1991. Giving this information to the Rajya Sabha, the government attributes this decline in exports to the sharp rise in the domestic demand for tea. This is a case where exports are being preferred over domestic well being. But the fall in India's share of world exports also relate to the fall in the growth rate of tea production from a steady growth of 3 per cent per annum between 1980 to 1985, since when the growth rate has averaged 1.2 per cent annually. This gives rise to the question of extending the area under tea. The Tamil Nadu Tea Development Corporation has approved of the Tea Board bringing 30,000 more hectares in the Annamalai and Nilgiris under tea cultivation. The The problem here is that the scope for such expansion is limited in the country. On top, tea production in the South has suffered a 25 per cent decline between January and March this year because of drought conditions. Given this fall in production the reentry of Russia in to the Indian tea market, after a break of over 2 months due to the collapse of the Soviet Union and the expiry of India-USSR trade protocol, with further harder prices that are already noted. This higher value of tea exports however did not prevent India's tea exports in 1991 falling; mainly because the volume was declining. On the *coffee* front March/April marked some good positive trends. To start with, NABARD announces that it will meet the coffee sector's credit needs of Rs. 226.26 crores during the VIII Plan. This affirms the soundness of the Coffee Boards projects and proposals for the VIII Plan which will be further elaborated during the following months. The other piece of encouraging news is that the world trade in coffee shows signs of reviving after going into the doldrums with the collapse of the International Coffee Agreement 2 years ago. But the first sign of revival is not based on a sound foundation of revival of demand for coffee the world over by coffee drinkers but because of the sharp reduction in the world's largest producer of coffee, Brazil, by as much of 28 per cent and is likely to have the same low level of production for 2 more years. Brazil which accounts for 25 per cent and more of exportable coffee seeds, now however turned round and has agreed to support the reintroduction of quotas. This is really good news or it will lead to an element of instability to the industry. In India, the Coffee Board is refining on productivity, which is urgent and on which India has a long way to go. For instance against India's

production of 688 kg per hectare, Costa Rica produces 1007 kg per hectare. This productivity programme is starting, and will cover 25,000 hectares in the first stage, 15000 hectares in Karnataka, 7000 in Kerala, 13000 in Tamil Nadu — at a cost of Rs. 31.88 crores. Productivity is not only low in India, it fluctuates from year to year due to a) the fluctuating biennial crop, b) vagaries of the monsoon and c) lack of intensive cultivation techniques in the small and marginal holding which are the majority. One way to even out production is to integrate the small and marginal grower into the intensive cultivation production progamme and so induce and work to optimum use of inputs. Further water augmentation also plays a key role. Blossom and budding showers and supplementing soil mixture during drought according to field trials, increases production by 47 per cent in the case of Arabica and over 95 per cent in the case of Robusta. Against the 25 per cent of the plant area at present under irrigation, the Board's provision of Rs. 110 crores this year for water augmentation is timely. To this should be added the very high effectiveness of sprinkler and drip irrigation which the Board and large and medium growers should increasingly use.

On the *rubber front*, March and April recorded both good and bad news. On the negative side, the drought conditions in Kerala fortunately come at the end of the rubber harvesting season: even so, together with the sharp decline in the demand for rubber by the automobile industry because of the hike in excise duty on tyres, tubes and flaps may further harden prices. Already the prices, RMA-5 has shot up to Rs. 22.30 per kg against the support prices of Rs. 20.45 and RMA-4 to Rs. 23 against the support price of Rs. 20.93. So in meeting our export commitments to Malaysia, STC will have to be subsidised upto Rs. 7000-9000 a tonne. This timel around the rise in prices should have been anticipated and a hedge on it should have been taken up. STC is still left with a stock of 10,000 tonnes and negotiations are on to export this quantity. But the prices factor involves the government with a growing and heavy subsidy. Other plantation crops exports are doing-well. *Spices* export is set at Rs. 320 crores in 1991-92; Also during the year 13,305 tonnes of *pepper* was exported, fetching Rs. 48.81 crores. *Cashew kernal* of Rs. 841·39 crores were exported in 1991 compared to Rs. 387.73 croress exports in the previous year.

* * * * * *

III. Industrial Development in Tamil Nadu

Industrial Development in Tamil Nadu

March and April saw a flow of industrial events and activities in the state- mostly of the positive nature. The 42 activities relating to the state's industrialisation during the period, 36 of a positive nature and 6 of a negative nature may be briefly reviewed. The 36 positive developments fall into 4 groups- events which represent something of a breakthrough, events which were important but were of a repetitive nature in that there was a reference to each of them in the past few months. events which were of minor significance and events on the border which are of marginal importance. Then there were the 5 negative developments during the period.

Taking the breakthroughs first, the April policy note and statement of the government to the Assembly on April 4 on the industrialisation of the state is a rounded comprehensive statement referring to the encouragement for the setting up of large and medium industries in a variety of areas ranging from newsprint to electronics and sugar, starting with a Rs. 1000 crore newsprint plant to come up in South Arcot district, a Rs. 160 crore caustic soda unit, a Rs. 159.crore pig iron project at Mettur and a 500 MW power plant in the private sector. In addition TIDCO will be presently completing the technical collaboration involved for the 1500MW Rs. 7000 crore joint sector lignite based project in Jayamkondacholapuram. TIIC has been asked to form a venture capital fund to promote communication of new technology. Similarly the electronic promotional agency, ELCOT is setting up 4 projects and will attain a sales turnover of Rs. 450 crores. Now the time is more than ripe to see some of these plans and projects which have been clearly set out put on the ground. A second breakthrough is the clarification of the policy on *privatisation*. 5 public sector undertakings on which the government has decided to disinvest. This involves transfer of TANCEM and TEL (Tamil Nadu Explosives) to the joint sector as a first step, withdrawing totally at a latter stage. On condition Southern Structurals, Tamil Nadu Magnesium and Tamil Nadu Salt Corporation are to be transferred to the private sector completely and directly. All these wholly owned TIDCO companies are good and healthy companies are the subject of disinvestment as part of a policy of production and disinvestment. In the future, the government will encourage and promote joint and private sectors and not itself engage in industrial activity. A third breakthrough was the announcement from Delhi that the Madras Aromatic project to be set up by Madras Refineries Limited and SPIC has at long last been approved. This is not only good for the state as the project will create many downstream industries as a result. A fourth break through that the Tamil Nadu Corporation for industrial Infrastructure Development (TNCID) set up by the government is now in the business of making infrastructural loans to entrepreneurs in the private sector to set up the needed infrastructure in their industrial estates. It is also extending loans for acquiring land for promotion of industrial complexes and growth centres. A fifth group of activity in this break through category relate to the clearance of expansion of NLC Mine I at a cost of Rs. 2137 crores including the new Kalinga Open cast south eastern coal field with an investment of Rs.485.77 crores, the Tamil Nadu Tamin Development Corporation which to encourage private sector projects, the development of acqua culture by the private sector of which the large hatchery project being developed by the Chidambaram Chettiar group is a good pointer and the development of the first integrated software technology park being set up by ELCOT, starting off with a public issue as a joint venture between the ELCOT New Era Technology and the state owned electronics corporation of Tamil Nadu (ELCOT). The second group of important industrial activities which have however been referred to in one form or another in the past comprise the *Tamil Nadu Newsprint and Papers* which is to invest Rs. 70 crores to diversify into the power sector, *TANCEM* which is being handed over to Chettinad

Cements, *TI Cycles* which is expanding and diversifying, *B & C Mills* whose reopening was finally effected in mid March, *Amalgamations* whose programme of expansion and diversification is impressive, and an old friend *Southern Motors Private* which is limping its way back carefully and cautiously, the new areas being developed by *Madras Refineries*, the reopening and restructuring of *Binny's*, the problems of filling its order book faced by *BHEL and the remarkable resurgence of Carborandum Universal*. A third group of activities refer to some minor activities such as the state government encouraging *Teakwood Plantations* near Madras to meet industrial and housing demand, the development of the new unit called *Integrated Computers Ltd.* the orderly winding down of *Enfield* whose short term and temporary boom in demand did not lead to false expansion, the development *of the first private thermal plant* in Coimbatore in the sea, and finally some marginal activities such as *WS Pumps* and its electrical components.

On the negative side, first in the absence of the *Annual Economic Survey of the State*, which other states like Karnataka, Maharashtra, Gujarat produce regularly before they are discussed and approved their budgets and industrial plans, it is difficult to pronounce intelligently and meaningfully on this important policy note and the project presented by the government. Why does not the government and its evaluation cell produce this essential document to help the legislature judge the important development proposals presented to them. In the absence of such an appraisal, it looks as if the legislature is playing a blind man's bluff game. Second, a feeling of helplessness seems to pervade the important departments and their able and seasonal heads because of centralization of programme activities. The recent regulation for all projects and contracts above Rs. 1 crore have to be cleared by government may have had the sound aim of checking leakages and corruption (though leakages and corruption on large overseas contacts escape all such scrutiny), but one result is to paralyse the work of specialists and implementation of projects. Third, the closing and winding down of sunset industries like *Enfield, TANCEM and TAMIN* are a right move. Fourth, this also applies to *MALCO* where some unclear and confused thinking is leading to attempt to revive this hoplessly unviable unit in a state which is seriously short of power and which has decided not to start power Intensive industry in the future and gradually close existing ones. That being the case the situation of MALCO is of little relevance and its lock out needs to be settled from the workers point of view provided there is a clear understanding that the firm has no future in Tamil Nadu. Fifth, the same considerations apply to *TAMIN* except that the private sector can come to its rescue and take over. Sixth the *Sivakashi Match Factory* as it exists is a danger to life and limb especially of the mass of of children on which it relies its work and functioning and who are exposed-daily-absorb every moment of their working lives to death and damage. Here the whole area needs to be recast and restructured and made safe for the workers - women and children who work there. Further the child labour legislation needs to be strictly enforced to prevent a recurrence of pasf tragedy. Finally the government report to the Assembly that in 1990-91, *58 Public sector enterprises* in the state with a capital investment Rs. 2048.23 crores incurring a large loss of Rs. 276.95 crores make the case for the state not being involved in industrial production itself.

Here again the industrial profile of the state is improving and the government is doing a good job on industrialisation only there is no need to waste every one's time in discussing the quite unless question as to whether Tamil-Nadu has stepped from its industrial preeminance. Because with the industrial development of other states, like Karnataka, AP, Gujarat, Tamil Nadu's third position in the hierarchy, not in substance. was bound to be affected. Finally it should be recognised that there is no scientific means of measuring the hierarchy of industrial development. All that can be done in establishing an order of eminence is to take separately measurable indicators like employment per 1000 workers, value addition per worker, capital intensity and productivity. But those indicators cannot be combined, CMIE does a good job in analysing and setting forth the indicators. But when it combines them and establishes what it calls a composite index of industrial development, it errs in not making clear that there is no such thing, that the composite index is only an abstraction. .

* * * * * *

IV. Education, Science and Health

Educational reforms

In March the report of the Public Accounts Committee was severely critical of the failure to implement the reform policies set forth in the National Policy of Education 1986, particularly the universalisation of primary education through the poor funnelling of resources to the states to implement the policies, plans and programmes. It emphasised the recommendation in its earlier report on the need for concrete and immediate steps to achieve the target of enabling 17.63 crore children by 1993 and also for the governments to ensure retention and the attaining of minimum levels of learning and in both formal and non formal education. It slso criticised the neglect of its earlier recommendation that non formal education curriculum suitable to the needs and environment of children should be developed to improve the physical condition of the school. The other important recommendation of the committee included development of detailed information on universal primary education and the goal to attain the target by 1995, the problem of child labour and the need for a long term perspetive plan. The union ministry of HRD reports that the work of the committee to evaluate school textbooks in relation to the objective of national integration has started. The ministry emphasised the need for maintaining the sanctity and the smooth conduct of examinations to assist the evaluation. In Tamil Nadu, the government reported to the Assembly about its 7 year plan 1992-1999 to improve school education at a cost of Rs. 1200 crores with Rs. 789 crores and training and upgradation of teachers, particularly maths, science and technology education teachers, Rs. 83 crores for appointment of additional teachers and the provision of 3 class room for 1000 schools, 6 class rooms

for another 1000 schools at a cost of Rs. 168 crores and craft schools for pre technology training in 500 schools and sheds for high technology training in 500 city schools at a cost of Rs. 45 crores. In the funds shared area of equipment, 3800 schools will get Rs. 19 crores furniture and Rs. 11.25 crores are provided for pre technology equipment training and Rs. 18.75 crores for high technology training. Rs. 37.5 crores is being provided for computer facility in 2000 schools and Rs. 50 crores for the expansion of science and technology centre network in the states. One important development in April, reported to the Assembly was reversal of the previous position of the states on the Navodya Vidyalaya scheme with the decision to establish one Jawahar Navodya Vidyalaya in each district, because the Union government had accepted the state's demand that Hindi will not be the medium of instruction in these schools but Tamil upto standard VIII and after that English. At the higher education level, the Planning Commission wants in the VIII Plan higher education to be extended in equitable and cost effective way mainly through the large scale expansion of distance education and increased involvement of voluntary private agencies. This does not mean the privatisation of higher education which was emphasised and clarified by the minister of Human Resource Development in the consultative committee of Parliament on education. In the university restructured syllabus, a general knowledge component is being introduced for the under graduate course in the agricultural colleges. This will improve both the knowledge base of the student and make him less unequal to his compatriot from Delhi, Calcutta and Bombay. On the other hand, the university Vice Chancellor says that no new courses are being opened in the university because of the financial squeeze.

Adult education

In the adult education field, two developments in March/April needs to be noted. First, NDC has set up, 8 member committee with the UP Chief Minister, Kalyan Singh and the Union Human Resources Development Minister, the Union Information Minister, the Chief Minister of WB, Mizoram, Punjab and Bihar, with Mrs. Chitra Naik of the Planning Commission as Member Secretary. The Committee is to review the programmes of the various schemes like NLM for eradicating illiteracy and the progress in the provisions for prevention of future illiteracy through the universalisation of primary education and to submit a report in 4 months to the committee. There is also a study by AIU on distant education courses in last 30 years and its poor performance, uneven geographical spread, inadequate state fundings-all resulting in poor quality of the teaching materials produced and used by it, evaluation methods used and standing instructions. The system has become a duplicate of the formal university system, except that its graduates are of a poorer quality compared to those in the formal regular system. Unless these defects are corrected, the system is bound to fail. The other problem is the growing official criticism of the NLM programmes, particularly the Total Literacy programme. In addition to Kerala where the negative criticism started and has been referred to in earlier issues, WB, MP. and now Pondicherry have joined this volume of criticism. Taking up the latest case of Pondicherry where members of the legislature in a discussion of the Arivoli

Iyakkam in the state which has been declared 100 per cent, literate, have made the criticism that the texts published and the songs and cultural programmes promoted by the compaign are anti national in character and in view of the strong views expressed by members including the speaker the government agreed to withdraw the offending text and replace them with more suitable ones and change the membership of the governing council of the campaign. Returning to the attack 2 days later, the speaker demanded the dismissal of the Director of Education under whose direction this material had been developed. The speaker was so agitated and insistent on this that the government agreed to take action. Apart from the propensity of the speaker intervening in this way, the published reports of the anti-national parts of the songs and texts state (translating from Tamil), "the independence of country has brought freedom to the land but what has it brought to us the people except poverty". In the second debate, the outlining of the country's disease, illiteracy, discrimination etc. which are listed are referred to as being the kind of anti national teaching being developed by the Arivoli Iyakkam. The legislatures got so worked up about this that the government was forced to give in to their demand and remove these "anti national" passages. This raises a serious issue. In the literacy campaign to teach a) the 3Rs, b) functional skills for using them, and c) awarness of the state of our society and determination to mend them, how can a concentration of the country's poverty and developing a will to counter it and all its mainfestation be called anti-national. This question should be clearly faced upto.

Technical education

Following the decision of IIM, Ahmedabad to raise its fees sharply, IIM, Madras has decided to raise the fees four fold to reduce the government subsidy and meet part of its expansion. The UK. through the British Council, has decided to give Rs. 24 crores to the Regional Engineering College to help modernise their equipment — an assistance greatly appreciated because it deals with an urgent problem. This is to supplement the World Bank assisted programme to modernise and update the national vocational system to ensure a steady flow of trained manpower to meet the changing skill needs of the country. This programme covers 2240 industrial training institutes, provides training to 3.70 lakh persons in 40 engineering and 27 non engineering courses. A small network of advanced training institutes provides advanced training in different fields to workers employed in industry to update their skill. The programme also serves the national programmes of IRDP, TRYSEM, DWCRA, NREP, RLEGP and JRY.

Science

A general purpose research reactor for isotope production, and other appliances of nuclear technology for peaceful purposes has been developed. It has generated high newton flux at low prices and has several research and development facilities. This reactor is of interest to several developing countries, BARC reports that it has specialised in radio isotype traces technology which has enabled the engines to unravel seepage in over 10 dams and to devise effective remedial measures. It is also used to locate minute leaks in underground gas oil pipelines without having to excavate underground. Scientists report that Madras will soon have comprehensive software park, a facility with global satellite communications and modern amenities.

Health

With the introduction of the new "no chit" male vasectomy operation, the health and population programme will receive a fresh impetus and the post 1977 stigma attached to sterilisation and the anti male feature of the programme are all likely to be completely changed and restricted. This non scalpel vasectomy is to be introduced in a phased manner and will give a new life and start to the population and family planning programmes.

* * * * * *

V. Employment and Labour Relations

The union government places the total number of educated unemployed at 45.37 lakhs. The five states with the highest educated unemployed are Kerala 7,27000, Tamil Nadu 4,86,000, West Bengal 4,76,000, UP 3,87.000, Maharashtra 3,85,000 and AP 3,53,000. This load of educated unemployed is on top of the finding of the 1991 census that the shortage of total workers including marginal workers in the population has gone up from 36.7 per cent in 1981 to 37.68 per cent in 1991. The government reported to Parliament that according to NSS 1987-88, there are 17 million child labour compared to 51.18 million in 1951. The implementation of the Jawahar Rozgar Yojana in 1991-92 has been poor, as 17 states and UTs have failed to achieve even 50 per cent of the targeted employment generation under the scheme, the actual achievement being only 49.85 per cent with generation of 4064.14 mandays of employment against the target of 8152.90 man days according to the Annual Report of the Ministry of Rural Development. On top, the members of Parliament from all parties and all state's report that the programme is riddled with corruption. In Tamil Nadu a scheme to provide employment for one lakh women was launched in early March. In the first phase, 11000 women will benefit and ultimately 5000 women in each state will be helped with financial assistance to improve their state through self employment. The Annual Report of the Ministry of Labour reports that in 1991 — January to September 963 strikes and lock outs resulted in the loss of 9.75 million. mandays compared to 1825 strikes and lock outs and 24.09 million mandays lost during 1990. Out of 4 proposals for closure received from January to December 1991, only one was approved out of 8 proposals for retrenchment, only one is under consideration, the others being rejected or withdrawn.

VI. Other Items

TNSC ST

In March both the executive committee and the General Council of the Tamil Nadu State Council for Science & Technology met. The executive reviewed and approved the council's budget for 1992-93 and prepared the agenda for the council. The Council reviewed the functioning of the programme, indicated some areas where there should be increased emphasis, asked that the objectives of the Council be amended to include one very important activity of the Council — the popularisation of science, and approved the Report of activities. It noted the various decisions of the executive committee on the research projects and gave some guidance for future activities. This is the final meeting of the council and executive committee as there will be a new council constituted by the government in July.

YWCA and Reader's Digest

The Madras YWCA celebrated its 100th centenary in early March. An imposing and well structured centenary building to commemorate the centenary with accomodation of some 50 rooms have been built. At the ceremony on the occasion apart from the President of the Madras YWCA, the All India YWCA President and the President of the world YWCA participated. Their messages were encouraging for the local organisation. Reader's Digest is moving into troublous times. At the meeting of its Board of Directors in March, the first sign of serious disagreements and splits were evident. This became formalised at its April meeting. There are negotiation to bring in Reader's Digest Association, Pleasant Ville, USA into RDI. There is also the interest of Tatas in the new venture. On the whole the future of RDI seems uncertain.

IIC

In the India International Centre there were 6 important events in March and April. There was usual monthly panel discussion - in March on the Budget for 1992-93 and in April on the Economics of Natural resourcss which was a kind of preparation for the United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro in June. Also there was the March seminar on resource mobilisation which stressed the importance of mobilising resources at this time of financial stringency. There was also a meeting of the committee on constitutional Reform which is working at dealing with the many problems through out during that last 40 years of independence. The Director General of the UNESCO made a visit to India and in a very good stimulating session of discussion at IIC dealt with the problem of globalisation. There was the meeting of the Board of Trustees to prepare for the Annual General meeting which followed and which reviewed with satisfaction the Director's report of activities for 1991-92, approved the audited statement of accounts for 1990-91 and the budget proposed by the Board for 1992-93.

SRC and TNBCE

There was the bimonthly meeting of SRC when the programme for 1991-92 was discussed and noted and the

budget for 1992-93 approved. It discussed the plan for the 1992 annual conference and asked the director of SRC and Secretary of TNBCE to present a detailed plan on it at the next meeting. The executive committee of the Tamil Nadu Board of Continuing Education which followed reviewed and approved the financial arrangements for the Madras District Literacy projects. It also finalised the arrangement for the inauguration of the Adiseshiah Bhavan. There was a meeting of the Selection Committee of TNBCE to choose a candidate for the post of coordinators on publications of SRC.

Literacy Activities

Apart from the above, in April there was formal inauguration of the Adiseshiah Bhavan-the State Adult Education headquarters which will also house the SRC. The building has been financed by the union and state governments and provides the state's adult education and non formal education programme with the needed infrastructure. Its inauguration was by the minister of finance, under the chairmanship of minister of education. The AIR organised a review of the Total Literacy Programme in the state in which also the Directors of SRC and Department of NFE participated.

Anna University

Anna University ran a 2 day seminar on the status of technical education in the state. It was attended by the engineering colleges of the universities. Anna University and MIT and some polytechnics when the current curricula, the time period for training engineers and post training experience were reviewed and approved.

April Development Seminar

The paper for the April seminar, the Union Budget for 1992-93, by C. Sarat Chandran together with the summary of the discussion at the seminar appears as the first article.

Second Article

A note on fiscal management in India; issues and options, appears as the second article.

Special Section

The survey of the research programme of the South Indian Universities and research institutions, together with a broad analysis of the results of the survey appears in the special section of this May-June issue of the Bulletin.

Book Review

The review by V. Jacob John of the book 'Taming Commodity Markets-the Integrated Programme and the Common Fund, in UNCTAD' appears in the book review section.

M I D S News

At a meeting the faculty and members of MIDS passed a condolence resolution mourning the untimely demise of Prof. Krishna Bharadwaj. She was a sitting member of the Academic Council of the Institute.

* * * * *

At a meeting held on 11th April, 1992 the faculty members of MIDS passed a condolence resolution mourning the death of Prof. D.T. Lakdawala. Prof. Lakdawala headed the Mission in 1976 which was sent by the Government of India to study the possibility of developing this Institute as a National Institute of Social Science Research. It was on the basis of recommendations of the mission, this Institute was reconstituted as a National Institute in March 1977.

* * * * *

Dr. Padmini Swaminathan participated in a Workshop conducted by the Gurukul Lutheran Theological College and Research Institute and delivered a lecture entitled "Issues Confronting the Women's Movement in India" held at Ooty between May 3 and 15, 1992. The theme of the Workshop was on : Widening Frontiers of Christian Theology : Indian Context : Dalits and Women.

* * * * *

Dr. Paul P. Appasamy presented a research proposal at a Workshop on "Methods for Social Science Research on Non-Timber Forest" in Bangkok on May18-20, 1992.

* * * * *

Dr. Nirmal Sengupta participated in a Seminar on Land Reforms in Andhra at Hyderabad, organised by NIRD and LBSN Academy, Mussorie.

* * * * *

Dr. S. Neelakantan presented a paper on "Political and Constitutional Thoughts of Ambedkar" at the Ambedkar Centenary Symposium held in the Department of Economics, Bharathidasan University on 10th April, 1992.

He conducted Ph. D. Viva Voce Examination for Mrs. Asia Bhanu at the Centre for Research in New International Economic Order, Madras on Wednesday, 10th June, 1992.

* * * * *

The Institute had its annual Workshop of Ph. D. Scholars and Guides from April 22 to 25, 1992. About 40 Ph.D. Scholars and 15 Guides drawn from different parts of Tamil Nadu, from the disciplines of Economics, Sociology, History and Criminology participated.

The orientation lectures were by Professor B. G. Halbar, Karnatak University, Dharwad, on "Economy and Society", and "Field-worker and the Field" on April 22 and 23 respectively; by Dr. S. V. Bokil from the Institute for Financial Management and Research, Madras, on "Use and Misuse of Statistics in Research with Special Reference to India's Data-Base", (as a second lecture); on April 23 and by Prof T. Prabha, from the Lady Doak College, Madurai, on "Research Methods in Social Sciences", on April 24.

In the afternoon sessions from April 22 to 24, as many as 30 research proposals covering a wide range of topics in the broad areas of industry, agriculture, irrigation, health, environment, education, social policy, women's issues, and urbanisation, were presented by the Ph. D. Scholars for discussion by the entire group of participants. On April 25, the Workshop began with a brief presentation of the overall assessment of the proceedings of the preceding three days by Dr. P. Radhakrishnan. The valedictory address was given by the Institute's Director.

* * * *

The institute had its Twenty second Interdisciplinary Research Methodology Workshop (in collaboration with ICSSR) from June 3rd to 6th 1992, at Institute of Development Studies, University of Mysore. There were in all 42 participants drawn from various disciplines and institutes and 12 papers. From the Institute, Drs. S. Neelakantan, Paul. P. Appasamy, P. Radhakrishnan and Ms. R. Akila participated. Dr. P. Radhakrishnan and Ms. R. Akila presented a paper on India's Educational Efforts: Rhetoric and Reality. Dr. Paul P. Appasamy and Ms. R. Akila were discussants for two of the papers. Dr. Neelakantan and Dr. Paul P. Appasamy chaired two sessions.

* * * * *

April Development Seminar

An Approach to the Central Budget 1992-93

by

Mr. C. Sarat Chandran
General Manager (Exports)
Kothari Industrial Corporation Ltd., Madras.

1. The Indian Budgets have generally not triggerd off any major debate in the Country except the one presented by Mr. V.P. Singh in 1985 which came in the wake of a young Prime Minister taking charge of the Nation and the hopes that it generated for a new thrust in our economic policies, programmes and priorities.

2. The approach to the central budgeting exercise has traditionally reflected three major strands of thinking: Firstly, there has been a greater interest on taxation proposals than on the pattern of expenditure projected. It is the Budget's impact on the prices of specific goods that becomes the focus of popular interest. Secondly, by the very nature of the taxation proposals, the budgets are keenly looked forward to by three groups:

   i) The Corporate Sector;

   ii) The individual tax payers;

   iii) The investors particularly the speculators in the stock market.

The impact of the budget proposals on these groups are immediate and they tend to see them as a major component in their decision making process.

Thirdly, the budgets are viewed essentially as instruments for short term supply/demand management, rather than as a document for policy statements on the approach to the economy That role has traditionally been played by the Planning Commission and some may regard the current budget proposals as one more instance of the steady erosion of the power of the Planning Commission. The fact that the Eighth Plan has now been launched on 1st of April

'92 without a formal document is significant.

3. The budget proposals presented by Dr. Manmohan Singh should therefore be seen as a major departure from conventional exercise. The move to "Open up the economy" and the "Unleashing of market forces" are the widely advertised themes of the budget. In this perspective the budget proposals for 1992-93 have five recognisable features and assumptions:

   a) A shift in the focus of Government policies from distribution to production and growth.

   b) A corresponding shift from agriculture to industry.

   c) An assumption that production and growth are most effectively achieved by the private entrepreneurial activities and institutions and this means that a larger disposable income left in the private hands should lead to an increased rate of growth.

   d) That export and foreign investment are central to the country's economic development.

   e) That administrative mechanisms to unearth the black have largely failed and therefore we must look for economic measures to motivate the holders of black money to divert them into productive areas and the best way to do this is to channelise them into capital market and gold.

In addition there is another hidden and implicit message in the budget viz. the policies of economic management of the country pursued in the 40 years were less than successful and therefore a fundamental break with this approach will augur well for the country's progress and devellepment.

4. It seems to me that these assumptions and their implications have not been debated in sufficient depth either before or after the budget. The euphoria the budget proposals generated in the corporate lobby and the frenzy in the stock market in the subsequent weeks have made it almost impossible to have an honest debate and several questions relating to the Finance Minister's proposals can justifiably be raised.

The cutting edge of these proposals must be seen in terms of how they relate to the central objective of our economic policy i.e. removal of mass poverty and achieving a more equitable distribution of wealth. If that objective remains unchanged (there is nothing in the Finance Minister's speech which warrants a different interpretation), then two observations can be made:

a) The debate on state intervention vs. market forces is still an unfinished one. Structuring an economic policy involves a good deal of fine tuning in choosing the proper mix (for a country like India, State intervention in Oil exploration can be justified but perhaps making and marketing bread need not be). To what extent are the policies evolved through the budget proposals based on such a detailed exercise in making them specific to the country's background is the question that has not been asked nor answered.

Secondly, it is important to recognise that when markets are freed there is even a greater need for social action because markets are not particularly friendly to the poor and vulnerable, that means there should be a conscious effort to raise the level of social expenditure in areas like basic education, primary health care, safe drinking water, nutrition and family planning and ofcourse in creating more employment opportunities. It is here that the budget allocations should cause a good deal of concern. Most of the poverty removal programmes and rural development programmes have suffered a scaling down of funds. The amount allocated for Jawahar Rozgar Yojna (A Programme introduced with much fanfare by the Late Prime Minister Mr Rajiv Gandhi) has been brought down marginally from 2100 crores in 1991-92 to 2046 crores in 1992-93. The budgetary allocation for the rural development as a whole has infact gone down from Rs. 3521.24 crores in 1991-92 to Rs. 3113.24 crores. The point that is made here is that the enthusiasm with which the Finance Minister has given concessions to the affluent sections like abolishing of wealth tax, on investments in stock and shares, an increase in the basic exemption level of income-tax and pegging of the rate to 40% maximum has not been matched by a willingness to initiate programmes for the weaker sections. What suffers then is the primary education, health care, availability of safe drinking water, etc. The simple fact is that the number of people below the poverty line at 400 million today is more than the entire population of India at the time of independence. Illiteracy in the country is a massive 65%. Safe drinking water is not available in majority of villages. Where does the budget stand in relation to these issues which we claim are central to our planning and development exercise?

5. A shift in the focus of the budget from agriculture to industry comes at a time when food crisis looms large on the country. During the past three years, despite good monsoons, food grains production increased only by 1.8%, far less than a 2.2%increase in growth in population. This year production has registered a further drop. Throughout the 80's, investment in agriculture has been declining. At constant prices Public Sector investment has come down from Rs. 1892 crores in 1980-81 to 467 crores in 1988-89. In fact the one State which has consistently recorded an increase in food grain production is West Bengal. In West Bengal food grain production is estimated to reach an all time record of 120 lakh tonnes in 1991-92 which will be 6.5% higher than 1990-91. This is significant considering the fact that for the same time frame the aggregate food grain production at the national level is projected to be about 1.5% lower. A major factor in this performance has been a carefully structured and faithfully implemented set of land reforms, a subject which hardly finds a mention in the new package of policies. It is also significant to observe that much of the increase in the food production in the State has come from marginal farmers who today own nearly 60% of the total land where as the comparable figure in the national level is 29%.

6. The budget seems to be dominated by a deep obsession to increase the country's exports and a larger inflow of foreign investments into the country. The conceptual basis of this thinking is not clearly spelt out. The impression that the recent changes in the economic policies try to create is that India has been till now a closed economy and the present efforts are to open it up. How far is this impression valid? Foreign collaborations and technology dominate the production of our consumer and consumer durable to a sizable extent. In some products like tooth paste, detergents, tyres, and tubes, matches and cigarettes, multi-nationals continue to control a major share of the market. If we look at the structure of Indian exports, we will find two items - Gems and Jewellery and Ready-made garments-have remained at the top for more than two decades. In fact more than 50% of our total exports are contributed by small scale sector. The basic fact is that there is not a single Indian branded good in the International markets and most of the commodities like tea, cashew and manufactured goods like garments are sold camouflaged in non-Indian brand names. Indian exports will never come of age until we find India's own manufactured and branded goods-textiles, package food, tyres and tubes, kitchen appliances, two-wheelers and cycles, electrical items and hundreds of other goods like these-appear in the western super markets. That situation will not emerge by sheer manipulation of macro-economic policies. It is a more painstaking job like quality management, improvement in packaging and an effective after sales service and an aggressive international marketing exercise. It is more a corporate job than what can result from policy changes.

7. The budget's assumption on black money that it will be difficult to contain its growth by administrative measures seems justified by past experience.

Conceptually it may be useful to divide the black money into two types: One, the income that is generated in perfectly legal operations and then evaded from the tax net. Two, the income that is generated in illegal operations and are multiplied there. These include activities like smuggling, under-invoicing of exports and over-invoicing of imports. All evidence suggest that it is this second kind that forms a major part of the parallel economy. In fact the parallel eeonomy is less parallel and more subterranean in character. The Budget's attack on this income particularly gold smuggling has come in two measures, gold import scheme and gold bond scheme and these may seem innovative but are totally inadequate to meet the challenge. It is doubtful that a scale of operation which involves smuggling of 200 tonnes of gold every year can be effectively tackled by a few thousand NRI's being permitted to import gold in limited quantities. In fact there is a danger of NRI's being used as a carrier by smugglers to bring gold into the country legally and then hand over this gold to the Government under the Gold Bond Scheme to escape the tax net. The cost to these imports may vary, will be financed by over-invoicing of exports and under-invoicing of imports. It therefore makes sense to withdraw either the Gold Bond Scheme or free import of gold to avoid this complexity.

8. The remaining part of the budget in terms of tax proposals, direct as well as indirect are a mixed bag where there is hardly anything worth talking about except the presumptive tax on shop keepers which is an innovative attempt to bring the informal sector into the tax fold. The informal sector has flourished in this country not only in evading tax but also is not complying with any standard employment norms - child labour, low wages and long hours of work and no retirement benefits and it is necessary to formalise the informal sector. One hopes this is the first step in this direction.

9. The budget for 1992-93 leaves three major impressions :

a) Inspite of schemes on a new thrust in our economic policies the proposals seem to ignore the structural reforms that are fundamental to the country's development programme like an effective population policy, implementation of land reforms, a long term employment strategy, etc.

b) The budget seems to strengthen the grip of the urban rich on India's economy. It is their purchasing power that provide the market for foreign investments expected to flow in from the liberalised policies.

c) By its very nature, the budget proposals might push a small tiny fraction of India's population to the 21st Century and leave behind a majority in a stagnant situation. The question whether they will benefit from a trickling down from the prosperity of this tiny fraction is a speculative one, as speculative as the movement of the stocks on the Dalal Street !

Summary of Discussion

The author at the outset mentioned that the central budgeting excercise has traditionally reflected three major strands of thinking. Firstly, interest has been evinced on taxation proposals rather than projections based on pattern of expenditure. In other words the focus is on the impact of budget on the prices of specific goods. Secondly, the very nature of tax proposals compels three sets of people to anxiously watch into the developments and their impact viz; corporate sector, tax payers and investors. Thirdly, budget is also viewed as an instrument for short term, supply/demand management, rather than being a document for policy statements.

The major departure from the conventional exercise is towards an open economy' and the 'unleasing of market forces' with specific features and assumptions. There has been a shift in the focus of government policies from distribution to production and growth, and from agriculture to industry.

Private entreprenurial activities and institutions can achieve production and growth more effectively is a major assumption of the budget, so too is export and foreign investment central to country's economic development. Holders of black money have to be motivated to direct their resources into productive areas and the best option is to channelise them into capital market and gold as the past measures have failed in this direction.

The author was however critical of the budget ignoring the central objectives of our economic policy i.e.; removal of mass poverty and achieving a more equitaple distribution of wealth. Secondly the debate on state intervention vs market forces involving structural changes choosing the proper mix is an ongoing debate. Even if markets are freed, need for social action becomes inevitable as they are often not friendly to the poor and vulnerable sections of society.

The reduction in the budget allocations for social development expenditure in areas like basic education, primary health care, safe drinking water, nutrition, family planning and employment causes real anxiety.

Moreover, poverty removal and rural development programmes have been given a raw deal vis-a-vis the concessions to affluent sections like abolition of wealth tax on investment in stocks and shares and an increase in basic exemption level of income tax. This has to be viewed from the growing poverty and illiteracy and lack of safe drinking water in majority of our villages, he added.

This shift from agriculture to industry is equally unfortunate as the food crises looms large with the Malthusian dilemma in operation. Despite the declining food production at the all India level in the recent years, West Bengal has recorded increase in food grain production mainly due to the implementation of carefully structured and implemented land reforms.

The deep obsession with exports and larger inflow of foreign investment into the country do not in reality conform to the structure of Indian exports as the past experience clearly shows that the two items - Gems and Jewellery and Ready-made Garments has remained at the top of India's exports for more than two decades.

The author pointed out the lack of branded Indian goods in international market in the Indian brand names as most of the commodity and manufactured goods are sold camouflaged in the non-Indian branded names. The need of the hour is quality management, improvement in packaging, effective sales service and an aggressive international marketing exercise rather than macro-economic manipulation.

The efficacy of administrative measures to check black money that is generated in illegal operations has serious repercussion on the economy. The smuggling of gold is to be tackled by gold import scheme and gold bond scheme-policy measures initiated by the government. The apprehension is the danger of NRI's being used as a carrier by smugglers to bring gold legally into the country and then hand them to government to escape the tax net.

On the whole, the budget, according to the author, seems to ignore the importance of structural reforms which are very fundamental to the economy. Foreign investments through liberalised policies is aimed at the purchasing power of the urban rich and for vast majority of the people it would have adverse implications.

In the discussions that followed the presentation, the Chairman Dr. Malcolm S. Adiseshiah raised the pertinent question on the role of 'professionals' in the budget making and budget discussion. The crucial issues such as land reforms, agricultural taxation, drinking water, sanitation, education are all state subjects and state responsibilities. Therefore, the central budget had scope in influencing the state subjects.

The Crux of the problem as in the case of rural development programmes viz: Jawahar Rojgar Yogna Program (JRYP) was not so much the paucity of funds as often believed, but the identification of beneficiaries which involve decentralised planning as that would ensure power to the local people.

The investments in agriculture have started falling mainly due to complacency over the huge stocks created. Food production not keeping pace with population growth has been a serious problem. The chairman also cautioned professionals not to fall in the trap of joining the chorus of market friendly economy. Priority areas will have to be clearly demarcated viz; agriculture, food, employment and education where State controls are essential for the weaker sections.

The concept of mixed economy must be safeguarded and in this context, controls and regulations would mean legislative controls rather than the bureaucratic controls.

He also urged for autonomous status to be granted to the Planning Commission to decide on the policy measures and the budget should derive the programme from those polics measures.

Economists must choose a middle path which should not be completely market based or involve too much of bureaucratic control. Structural policies and adjustments ought not to be mixed up with the budget proposals because they raise very fundamental issues relating to the economic structure.

The chairman also saw the cut in subsidies envisaged in the budget as a sequel to the IMF conditions rather than a deliberate policy of the government.

On the question of black money paving the way to raise the velocity of money supply in circulation leading to inflation, it was felt that the states right now have little control over inflation.

The author while responding to the queries mentioned that too much of bureaucratic control was undesirable and suggested administrative measures to curb black money, as wealth and income tax were evaded by potential assessees and used to buy shares in stock markets.

Inflation was induced by both demand pull and cost push factors and the nexus between the two was equally important. On the question of liberalisation and opening up of the economy, one participant agreed with the author that such reforms would make the weaker sections more vulnerable because of the operation of market forces.

The participant, however, disagreed with the author that the fiscal deficit of 6.5 per cent of the GDP was a wrong policy decision of the government. The participant pointed out that in view of the high rate of inflation in the recent years a reduction in the fiscal deficit was a correct measure in the right direction.

On the question of viability of small scale units, it was mentioned that these were crippled by management problems and banks were often not friendly with them. Mention was made to a PTI survey which shows that 70% of exports came from the small scale sector. Thus the small scale sector siguificantly contributes to the Indian exports although not in their names.

The chairman while summing up the proceedings mentioned that economists had a lot to benefit from the presentation, as judged from the theoretical and empirical data and the issues raised to understand and forecast the happenings in the country.

V. JACOB JOHN

Fiscal Management in India: Issues and Options*

Basic Framework

As the Fiscal management in India is being considered against the current grave economic crisis pervading the economy, it is essential to set forth the framework within which the fiscal management is envisaged. The framework comprises:

a) the unchanging goals of the economy

b) the short term and medium term issues and options involved.

Goals of the Economy

The unchanging goals of the economy are reduction and elimination of poverty, damping down inequalities of income and wealth, and increase of employment and decrease of unemployment. One of the instruments for attaining these goals is increase in the growth rate of agriculture and manufactures and other facets of the economy termed for short increased growth rate, which may not be realised in the short run this year and next-as the price to be paid for correcting the serious *macro economic* imbalances. The growth rates for 1990-91 is likely to be 4.5 to 5 per cent this year, 1991-92.

The short term issues and options

Fiscal deficit: The issue starting us now-this year and the next is the huge fiscal deficit which have been building up over the last 6 years as the following table shows:

TABLE I

	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92
Revenue Expenditure	35,496	41,965	47,844	56,642	64,208	74,966	81,350
Revenue Deficit	5,565	7,579	8,497	9,842	11,912	19,585	17,766
Budget Deficit	6,945	8,201	6,080	7,484	10,592	10,772	9,977
Fiscal deficit					35,630	43,331	38,976
Increase in net RBI credit to Union government					13,813	13,000	9,977

Source: Budget document and for 1990-91 and 1991-92 Interim Budget

*A Paper by Dr. Malcolm S. Adiseshiah for the Workshop on Fiscal Management in India. Indian Economic Association Trust, University of Madras, July 22, 1991.

The main *problem* that the above table shows is that revenue expenditure increasing fast every year, particularly from 1988-89, followed by mounting revenue deficits. The Interim budget for 1991-92 reveals officially for the first time the fiscal deficits for the last 2 years 1989-90 and 1990-91 and the estimate for this year, which are 3-4 times the budget deficit, along side large increase in net RBI credit to the government. The task is to cut the fiscal deficit for 9.5-9 per cent of GDP down to 4.5 per cent before the end of 1992-93 and to 0 to 1 per cent by the end of the Eighth Plan.

The *option* on this is to cut revenue expenditure which has shot up further this year over the budget estimate due to not taking any of the promised corrective actions during the first quarter of the year. The order of magnitude of the revenue expenditure cutback this year will have to be 25per cent in the remaining quarter, and 20 per cent duting the next year, in order to attain the 4 to 5 per cent of GDP as fiscal deficit by March 1993. This revenue expenditure reduction will have to be through:

— cut back in defence outlay (particularly defence imports) of Rs. 3000 — 4000 cores (This will be mainly cutting the fat in the outlay which has never been scrutinised by Parliament, and will involve no reduction in defence preparedness).

— reduction in subsidies.

— food subsidies, by Rs. 2000 through PDS distributing only coarse rice and wheat and letting the price of all other varieties go up—fertiliser subsidy by Rs. 4000 crores, allowing its price to go up.

— export subsidy Rs. 5000 crores by closing wasteful foreign offices and abolishing CCS and provision of cheap export credit in view of the 17—16 per cent devaluation of the Rupee just announced.

— withdrawing budget support to loss making public sector units and selling the sick private units nationalised by government and the ailing public sector enterprises—Rs.10,000 —Rs. 12,000 crores — freezing all government staff appointments to vacancies, with no new appointments —Rs. 2000 crores.

A second option is to increase tax and non tax revenue. On tax revenue, the first task is to tighten up the collection machinery which can be done immediately so that slippage in the collection of Rs. 560 crores over the budgeted figure during the first quarter of the current year is made up. There is need to increase the income from income tax by widening its base, bringing in the self employed professionals who are outside the income tax net, and by cutting back drastically on the various exemptions. Our income tax rate are low as they do not cover 40 per cent of the economy which is the black income economy, which should be brought into the tax net. Finally, the corporation tax needs to be more effectively administered. The government reports to Parliament that 100 of our largest corporate enterprises pay no tax at all. This again can be corrected by requiring that all enterprises pay the tax (as a percentage of their surplus), and by removing selectively the various incentives which are used by the firms to avoid tax liabilities.

As for non tax revenues, the government will have to earn additional incomes by raising railway fares and freight charges, air fares, coal price, and because of the July 1 & 3 devalution which will push up the crude oil import bill from Rs. 10,000 crores to Rs. 13,000 crores, (unfortunately) the price of petroleum products also.

This packet of policies should meet the immediate objective of reducing the fiscal deficit to the targeted 4 to 5 per cent of GDP by March 31, 1993.

But *the medium term objective* should be to completely eliminate the fiscal deficit by the end of the Eighth Plan. Because, as we have seen to date, that the only way to finance the fiscal deficit, which stems from the revenue deficit, is to use the capital surplus as is proposed again in the 1991-92 interim major and/or the market borrowing as was done from 1988-89, for meeting the fiscal deficit. If the fiscal deficit is eliminated, then the surplus on capital account and the market borrowings can be used for their normal purpose, for investment in the priority areas of the plan.

A second short term *problem* that fiscal management has to deal with is the inflationary pressure of the economy, where wholesale prices have risen from 5 per cent in the early 80s including the first half of the Seventh Plan to 11-12 per cent over the past year. (The decline in the wholesales price index since May 1991 is a statistical quirk, arising from the recent higher base on which it is computed and does not represent any let up in the inflationary spiral). This upward price movement is not due to any scarcity or limitations in the supply of goods. With three successive years of bountiful agricultural harvests, and with the industrial growth rate for that period being 8-9 per cent, and with no decline in the infrastructural services like power, crude etc., the supply side of the price equation is not to blame. The inflation is caused by two major factors on the demand side. First, the large fiscal deficits, involving in growing RBI credit to government (the lower figure for 1991-92 in the interim budget is a budget estimate which has already been surpassed) pumps a large quantity of reserve money into the economy. For every 1 Re. of such money, Rs. 3 are generated. The second factor has been the distortions caused by the administered prices policies of the government — the procurement prices of cereals, oil seeds, cotton have been continuously raised as well the increase in the price of petroleum products which was needed to meet mounting government expenditure and the impact of the Gulf crisis.

The *option* for damping down inflation is first to cut back drastically on the fiscal deficit which will reduce the inflow of reserve money into the economy. On administered prices, the perspectives are more difficult — the need to raise coal-prices, railway rates and power and water tariff as a means of increasing non tax revenue in order to cut the fiscal deficit is inescapable. Now a third force has to be taken into account — the Rupee devaluation of July 1 and 3, which has depreciated the Rupee (the regression derived based model) by 17-19 per cent corresponding to a basket appreciation of 21 to 23 per cent. This will raise the price of all imports and to that extent raise prices. One way in which this can be neutralised is to reduce advalorem import duties and to allow prices of non necessaries to rise (but not the prices of wage goods). In the short run, the means of controlling inflation and bringing down prices might also require freezing all DA payments, enforcing savings was

done in 1974-75 and reducing dividend payments by 50 per cent. These are drastic measures which call for a national consensus on the part of the well to do groups-farmers, industrialists and individuals tightening their belt.

The *third problem* which is more than a matter of fiscal management and spillover into the medium term is the accelerating of the Balance of Payment disequilibrium, the falling foreign exchange reserves and mounting internal and external debt. The table below sets forth the parlous state of out Balance of Payments.

TABLE II

	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91
Export	11,578	13,315	16,396	20,550	27,681	29,100
Imports	21,164	22,669	25,692	34,513	35,412	40,600
Trade balance	-9,586	-0,354	-9,296	-14,062	-7,731	-11,500
Invisibles	3,869	3,524	-3,003	3,572		
Current Accout	-5,927	-5,820	-6,293	-10,429.1		

Source : RBI : Reports on Currency and Finance

The foreign exchange at March 1991 is Rs. 1,020 crores, which is the equivalent of 3 weeks imports. Internal debt (all sources) has mounted to Rs. 100,000 crores and external debt (all kinds) to Rs. 80, 000 crores, placing India in the third place of the most indebt countries, after Brazil and Mexico.

The *option* facing the economy in the Balance of Payment area is first to continue for the balance of this year the imports compression now under way so that imports grow at the current 18 per cent. This compression and low growth of imports is also now necessitated by the devaluation of the Rupee and the higher cost of imports. Exports have shown a regressive trend from 17 per cent in 1989-90 to 9 per cent in 1990-91 and 4 per cent in April of this year which the July 1 and 3 devaluations should reveal so that in the first two months of the year and if this trend continues, the balance of trade deficit will be reduced for this year and the next. There is need for a restructured import export policy which can reflect these elements and this is underway. It is on the side of invisibles that there is a problem. Remittances are stagnant and tending to fall, and so there is need for the import-export policy to provide for direct foreign investment in areas where technological upgradation are needed and where breakthroughs are recorded.

On the internal debt, it is necessary for the annual market borrowing to slow down-say by 10 to 15 per cent for this year and by 20 to 25 per cent next year. This would also help in keeping future interest interest payments down, so that the annual borrowing may provide a net surplus for investment.

On external debt, there is need for India to join other debtor countries in negotiating for a partial write off of the debt, as has been done for Poland, Egypt and least developed countries. Only then can India and countries like India meet its annual debt obligation.

There are *other medium term problems* that relate to the nature of the economy, the productivity and price competitiveness of our manufacturing industry, and the problems of deregulation and what are called liberalisation measures, the means to promote a growing economy with employment generating, poverty reducing and inequality replacing trends, through an adequate and expanding supply of wage goods. But these are beyond the present theme of fiscal managemet of the economy.

Book Review

Taming Commoditity Markets

The Integrated Programme and the Common Fund in UNCTAD
Gamini Correa, Vistaar Publications, New Delhi, PP 271, Rs. 225/-

The book containing 11 chapters and four appendices deals with various issues pertaining to primary commodity (PCs) trade under the purview of UNCTAD involving developed countries (DCs) and developing countries (LDCs) in a global setting. The Integrated Programme of Commodities (IPC) envisaged creation of a Common Fund (CF) with focus on Buffer Stocks (BSs) and Export Quotas (EQs). The Schedule of events leading to the ratification process of the CF forms part of preface itself.

Chapter I to III traces the historical evolution and significance of PCs to LDCs, the rationale for market regulation and the evolution of International Commodity Policy.

The role of Transnational Corporations (TNC) and International Trade Bodies viz ; United Nations Conference on Trade and Development (UNCTAD) and General Agreement on Tariff and Trade (GATT) ; Monetary Institutions like International Monetary Fund (IMF) and International Bank for Reconstruction and Development (IBRD) is also analysed.

In *Chapter II* the emphasis on short-term fluctuations in commoditity prices is significant since it is the instability in prices rather than their average levels that has dominated both the theory and practice of international commodity policy. Government intervention, its manifestations and variations in supply affected by weather can also be intrumental in creating price instability.

Chapters IV and V refers to the genesis of the Integrated Programme and the Nairobi Conference. The focus is on the Programme of Action on the Establishment of a New International Econòmic Order (NIEO) with emphasis on the structural change in World economy and collective self reliance on the part of LDCs. According to the author, the UNCTAD proposals emphasised more on moderating price fluctuations than on raising long term price trends and did not insist on price stabi ity. The IPC is based on establishment of a range of internationally owned stocks for a wide range of PCs of interest to LDCs and the setting up of CF with provision of financial resources for stocking.

The Nairobi Conference emphasised the creation of CF rather than stabilisation of prices of PCs. The proposal put forth by former US Secretary of State, Henry Kissinger for an Investment Resources Bank was a matter of dispute between US and EEC while the Federal Republic of Germany (FRG) was not in favour of CF and market intervention.

Chapter VI to IX pertains to various aspects of the Common Fund. The DCs suspected CF to be an instrument of LDCs (G-77) and did not guarantee their commitment. Besides the overall vagueness and lack of clarity of the concept, whether to strengthen commodity prices or stabilise them, mode of operation, sources of finance were left underfined to be determined in the course of negotations.

The financial aspects of CF had two types of lending activities. The *First Window* is meant to carry out borrowing and lending activities against the collateral of commodity stocks and capital or guarantees provided by Government. The *Second Window* could operate on the basis of voluntary contributions by donors, provided on concessional terms or as grants. Its resources would be used by LDCs for diversification, research and promotion of processing activities. The nature of both these functions was a matter of controversy between DCs and LDCs.

Chapter VII elucidates the second and third session on CF in Geneva which proved productive as the OPEC nations expressed their willingness to provide financial support to LDCs. The G-77 (LDCs) contributed 10% of the financial resources (47% of votes), Group B (DCs) 68% (42% of votes), Group C (Socialist Countries) 17% (8% of votes) and China 5% (3% of votes).

The Agreement was a major breakthrough in implementation of IPC and also proved the negotiating capacity of UN which enhanced UNCTADs role as a forum for negotiations. The provision was for a CF with agreed objectives, capital structure, modes of operation, an outcome of concensus evolved by LDCs. The paucity of capital was not a detterant to CF but dependence on International Commodity Agreements (ICAs) meant concensus among producers and consumers based on political commitments.

However, the fact of having voted the adoption of the CF did not make it obligatory for governments to ratify it as the Articles of Agreements is a legal instrument involving procedures based on international law. The experience of UN shows the slow nature of the ratification process, as internal procedures vary from Government to Government and are time consuming and at times necessitates legislation by Parliament.

The Agreement also stipulates two severe conditions for CF to exist-not less than 90 countries should ratify and should together account for 2/3rds of its total directly contributed capttal.

Chapter X on ICAs, traces the period 1965-1976 when meetings on Commodity problems apart from UNCTAD also involved FAO and other agencies.

The earliest agreement incorporating provisions for price stablisation is the International National Rubber Agreement (INRA) of 1979 with provision for market intervention to regulate prices exclusively through the purchase and sale of stocks.

The author has rightly cautioned the vested interests consisting of domestic lobbies of importers, manufacturers and distributors who are often suspicious of inter-governmental regimes and succeed at times with their access in undermining the confidence of policy makers in LDCs. Besides the passive attitude of LDCs themselves in the discussions and negotiations pertaining to commodity negotiations as in the case of tea for sharing of quotas is detrimental to their own interests.

The conservative governments that assumed office in US, Britain, FRG around the turn of second 'Oil Shock', 1989-80 gave priority to domestic problems than to promote development and co-operation or global economic management.

In *Chapter IX* the author focusses on the realities pertaining to commodity trade. Despite industrialisation and deversification of exports, large number of LDCs continue to depend on PCs for substantial part of their foreign exchange.

African countries are engulfed with acute food shortages and famine and in Latin America, development and growth was brought to a stand still by the burden of external debt crisis.

The author refers to Raul Prebisch thesis of the inherent tendency of the terms of trade of PCs to decline vis-avis Manufactures due to free play of market forces and as a sequel to the manifestation of greater organisational and monopoly powers exercised by the factors of production engaged in the manufacturing sector compared to primary production.

The author rightly points out the various tariff and non tariff trade barriers on processed goods exported from LDCs as being protectionist in nature and at variance with DCs proclamations in favour of trade liberalisarion and their reliance on market forces.

The question of marketing, as distinct from market access is another major aspect of the dynamics of structural change for the LDCs involved in PCs production and exports.

The processing of commodities however can gain momentum under schemes of integration involving LDSs at regional/sub regional levels as well as arrangements under the newly envisaged Global System of Trade Preferences (GSTP) aimed towards South-South Co-operation.

Among the many issues raised in the study, the concept of 'Supply' as envisaged by the author refers to variation, regulation, and management. The former is referred to in (Chapter I page 2, Chapter XI page 169 and latter in Chapters V to IX.) It involves a comprehensive package under the Integrated Programme of Commodities. Chapter XI (pages 177, 178, 179, 180, and 193), is on need for measures aimed directly at regulating supplies as part of the structural measures envisaged for commodities.

Supply management also involves technicalities concerning export quotas and international stocking arrangements. UNCTAD's assumption of the commodity markets is based on the assumption arising out of over production and laid emphasis on regulation of supplies which influenced prices. In practice, however, UNCTAD advocated the need to restrict production by curtailing acreage which went contrary to World Bank's approach of lending for acreage expansion which resulted in surplus and dampening of prices.

The buffer stock scheme as part of supply management laid emphasis on prioe stabilisation but fluctuations in export earnings were outside its scope as in the case of crop failures or political crisis which nullified the purpose of the scheme as pointed by the author (Chapter II, page 15). The basic draw back of the scheme was its emphasis on stabilisation of prices than export earnings as the former could not necessarily stabilise the latter without regulating supplies by quotas. Though market sharing and distribution of total planned export were specified, problems continued to persist with regard to determination of the nature and size of quotas and those meant for production/exports. Indulgence of LDCs in bilateral as well as various forms of counter trade and practice of maintaining privately owned stocks rendered the scheme ineffective.

In actual practice absence of realistic and effective export quota could not ensure realistic export price for producers. The lack of policy to ensure that exports would be disallowed, if it did not satisfy a minimum export price also rendered the scheme ineffective.

Another issue of inelastic nature of commodity supply, due to production and planting system and exchange rates (Chapter X page 161), is only one aspect of the problem. Since commercial crop production is mainly confined to larger estates primarily meant for external markets, profits are maximised by paying low wages to labour and keeping costs low. The pressure of excess labour has its repercussion on determining the exportable prices of PCs. Comparison between PCs exported by (LDCs) and Manufactures by (DCs) as argued by Raul Prebisch for the terms of trade to deteriorate in the case of former may not be valid for technical and methodological reasons. It is strange however all the same, as my own study shows that the same PC, exported by DCs seem to fetch always higher price. An important function of DCs is to act as intermediaries by purchasing cheap raw materials and increasing their value by processing, packaging, shipping and so on. The crux of the problem is therefore not one of inelastic demand alone but it is the control of business and the extent of control. The influence of TNCs and their control over a series of inter-linked operations such as processing, marketing, shipping, freight rate determination and interest payments on exports and services also play a crucial role in determining the direction and pattern of trade.

Another, major issue is 'Structual Change' which is confined to the commodity sector as in Chapter I page 5, Chapter III, page 29, Chapter IV, page 39 and Chapter XI, page 192. The concept of structural change in the commodity sector has to be viewed in a macro perspective involving suitable monetary, fiscal and agrarian reforms. Several Government's policies have been influenced particularly my IMF as in the case of devaluation of currencies (Chapter I, page 2, Chapter 10, page 60,) as pointed by the author. Such policy reforms initiated by IMF must be commensurate with the felt needs and socio-economic priorities of individual countries, if structural transformation in the commodity sector is to become a reality.

The issue of substitutes has a detrimental effect on prices of PCs as ascertained by the Author in (Chapter 1, page, 5) but is not as adverse as in (Chapter 11, page 168), but technological changes do affect product quality and costs as in the case of tea and rubber.

In the case of natural rubber (NR) excessive price fluctuations was diagnosed as a major malady and UNCTAD viewed creation of buffer stocks as a policy measure. However, knowledge of the production and consumption of the major competitor synthetic rubber (SR) is inadequate and defective. In USA, EEC and Japan, SR is the major competitor of NR and stocks are used to manipulate NR prices. NR is an important industrial raw material and for strategic reasons DCs also held stocks over which UNCTAD had very little knowledge and control.

A study on the useage by TNC's in the manufacturing tyre industry shows 2% of NR absorption with 10% of SR component. Therefore the employment generated by backward linkages (Rubber absorption is not very attractive). While a greater degree of substitutability and flexibility exists between NR and SR, the former's competitive efficiency is reduced leading to lower prices.

The technical innovations in the forms of Technically Specified Natural Rubber, (TSNR), Standard Malaysian Rubber (SMR) and Standard Indonesian Rubber (SIR) are no doubt innovations over Ribbed Smoked Sheets RSS, 1.,2,3, and 4. But, both in Malaysia and Indonesia the price advantage is lost due to stiff competition from SR and escalating freight rates imposed by TNCs shipping companies over the years.

Another issue raised refers to remunerative and fair prices to producers and consumers in (Chapter V, page 64, and Chapter II, page 170). UNCTAD could not explain what the remunerative prices were and how these prices could be provided and who will make the necessary sacrifices. Neither the producers nor the consumers could arrive at any concensus.

In the case of tea, regulation of marketing is to be coordinated to prevent over stocking as it could depress tea prices. As usual tea stocks for three months are held in London ware houses. UNCTAD has no control over supplies and this gave a fillip to speculation and uncertainties at all levels.

The price factor was not the issue with the Kenyan tea producers where yields per hectare are higher than both India and Sri Lanka and return per hectare was remunerative enough even at lower prices. Hence they wanted larger quotas and were more interested in retaining their share of World market rather than the return it fetched through exports. Another factor is the need to adjust frequently in a fast changing world environment the quota allocation of individual countries.

If an effective Central selling agency existed, it could have solved the problems of implementing a producers agreement, but not the problem of quota allocation especially between traditional and new producers.

The issue in (Chapter II, page 9,) refers to Government intervention and various forms of protection practised in US, Japan and EEC which has a depressive effect on PC's prices. The doctrine of comparative cost should normally be operative in laissez-faire economies but the very countries professing them dispense with the philosophy when their own interests are at stake. This limits market access for LDCs Products and what is even worse is the production of commodities by DCs for which they have least advantage ignoring in the process the criteria of efficiency in production.

The International trade bodies like UNCTAD and GATT, IMF and IBRD are based on the operation of market economy with the DCs dominating them and LDCs remaining less active partners. The control exercised by DCs is substantial both at the policy and operational levels.

Another issue in (Chapter II page 174) pertains to gains in manufacturing from innovations resulting in higher wages due to power of trade unions in DCs, seldom result in higher wages to workers in LDCs who generally lack bargaining power.

The real issue however, apart from the pressure of excess labour as already mentioned is the extent of market power exercised by the TNCs. Many of them are integrated backward into plantations and forwards into processing and transnational banks. With their superior economic, political and trading intelligence networks, they can combine speed and flexibility in their operations unmatched by the national marketing institutions of LDCs.

The weak bargaining power of unions in LDCs is also due to the existence of multiple unions serving various political parties with different ideologies with their own vested interests.

The author elucidates from a rare and unique perspective in his official capacity as Secretary General of UNCTAD from 1974 to 1984 and his role in shaping the course of events, paving the way for the various ratification process pertaining to commodities. The functioning of international politics and the development of international economic policy and law is descriptive in nature. Trade in commodities is seen as a key element in the search for an equitable global economy based on the principles of mutual interest and the interdependence of the global economy.

The author deserves to be complimented as he has touched upon all the crucial issues in the international commodity trade in a authoritative and comprehensive manner.

The book is a bold attempt in unfolding the dynamics of the functioning of UNCTAD in a global perspective and serves as a very useful guide to students, scholars and practitioners specialising in international economic policy and trade related studies.

V. JACOB JOHN

Twentysecond Census of Social Science Research in Southern States

1992

Introduction

The Twentysecond Census of Social Science Research recorded 409 entries which is not only been a rise since 1987 but well ahead of last years 369 entries. Table 1 which tabulates the entries according to states and institutes as well as disciplines shows that the coverage is far from being exhaustive. For instance, from Andhra Pradesh only 7 Universities/Institutions have responded and an equal number of 4 from Karnataka and Kerala and Tamil Nadu 10. This has been rather disappointing inspite of making special efforts to canvass information and sending reminders. Letters were sent out to as many as over 200 departments in various universities in South India. We would welcome suggestions from users of the census on how its coverage can be made more comprehensive.

Table 1 as already mentioned, gives the list of institutions that have participated in the census and the general classification of entries according to the subjects. In all 25 institutions (departments) responded to the request for information. Of the total 409 entries, Economics leads with 305, which is a sharp rise from last year's 278 entries. Surprisingly for the the first time Economics records the highest entry with 305 and History takes the second place with 26 entries followed by Education with 22 and Adult Education with 16 and Sociology with 13. Commerce, Demography, Law and Philosophy and Political Science have not found their entries this year although Agricullture, Psychology and Social work recorded neglible entries similar to last year. The figures for the remaining subjects are: Agriculture 3, Anthropology 8, Geography 11, Psychology 2 and Social Work 3.

The rows in Table 1 gives information about the institutions arranged according to States. The states total are also indicated. For successive years Andhra Pradesh leads with 254 entries over Tamil Nadu's 108 and Kerala 108 overtaking Karnataka for the first time.

In Andhra Pradesh, Economics leads with 230 entries. In Karnataka, Geography with 11 followed by Economics with 8, in Kerala, Economics has 13 entries and in Tamil Nadu, Economics with 54 entries followed by History with 23 entries.

Table 2 gives a more detailed classification of the census according to the purpose for which research is being done. Out of the 409 entries, 163 leads to Ph.D theses and 88 to M. Phil dessertations, the rest being research not linked to degress.

Presentation of Census

Part 1 of the census which reports on research projects is organised as follows:

The classification is first, subject-wise, second, institution-wise (University, Institute and College), third, degree-wise (M.Phil, Ph.D and projects not leading to any degree) and fourth, sub area-wise (alphabetically) and within each sub-area the order is chronological. The subject classification and the institutional listing is alphabetically arranged beginning with Anthropology.

Every entry first carries the title of the project. This is followed by the sub-area to which the research project belongs. It should be noted that the sub-area is given by the respondents. Where this or any other information is absent from any entry, it may be understood that the same was not furnished by the respondent. The sub-area is followed by a brief account of the objective and methodology of the project. Then follows the degree to which the project leads (Gen standing for 'General' is indicated if the project does not lead to a degree), the date of commencement of the project and date of termination, in that order. Finally, the names of the researcher and supervisor respectively are furnished. The abbreviation (Ind) appearing against the name of the researcher (s) indicates that the project has been undertaken independently by the researcher (s).

In the case of projects which have peen reported either in the last census or in earlier one, two points should be noted. (1) The objectives and methodology of projects are not repeated if they have already been reported in sufficient detail. However all other information is furnished. (2) In addition to other details, the objectives and methodology are included in cases were, (i) this information was missing in the earlier report, (ii) the presentation in the current report appeared to be more clear or detailed and (iii) any change was noticed in the Objectives and or Methodology.

The following abbreviations have been used in the presentation:

A: Sub-area

O: Objectives

M: Methodology

R: Name of the researcher

S: Name of the supervisor

Gen: General

Ind: Independent Research

In Part 11 of the Census, the areas of specialisation of different centres is listed on the basis of information supplied by the heads of concerned centres (departments or institutes as the case may be.) It is hoped that the information given in part II will help the researchers to find out where research work of their interest is currently going on. The appendix provides the addresses of the universities, institutes and colleges which have responded to the census.

Comments on the census from users and suggestions for improving the presentations of the reports will be most welcome and may be sent to the Director of the Institute.

TABLE 1

Twentysecond Census of Social Science Research in Southern Universities : General Classification

	Adult Education	Agriculture	Anthropology	Economics	Education	Geography	History	Psychology	Sociology	Social Work	Total
I. Andhra Pradesh											
1. Andhra University			5								5
2. Osmania University				96				2			98
3. University of Hyderabad							3				3
4. Sri Krishnadevaraya University				19							19
5. Sri Venkateswara University	14										14
6. Administrative Staff College, Hyderbad				106							106
7. Institute of Development & Planning, Vizagapatnam				9							9
Total	14		5	230			3	2			254
II. Karnataka											
1. Gulbarga University				3							3
2. Karnataka University			3	3							6
3. University of Mysore						11					11
4. ISEC, Bangalore				2							2
Total			3	8		11					22
III. Kerala											
1. Cochin University of Science and Technology				7							7
2. University of Kerala									12		12
3. Centre for Development Studies, Trivandrum				4							4
4. Indian Institute for Regional Development Studies, Kottayam				2							2
Total				13					12		25
IV. Tamil Nadu											
1. Annamalai University					15		16				31
2. Bharathidasan University				4							4
3. Gandhigram Rural University				16							16
4. Madurai Kamaraj University				13	4						17
5. Mother Teresa University, Guindy					3		7				10
6. Tamil Nadu Agricultural University, Coimbatore		3									3
7. University of Madras	2			6							6
8. Madras Institute of Dev. Studies				12					1		13
9. Madras School of Social Work										3	3
10. Ayya Nadar Janaki Ammal College				3							3
Total	2	3		54	22		23		1	3	108
Grand total	16	3	8	305	22	11	26	2	13	3	409

TABLE-2

Twentysecond Census of Social Science Research in Southern States

Subject Classification

Sl. No.	Area	Page No.	Ph. D.	M. Phil.	Gen.	Total
1 - 16	Adult Education		11	5	...	16
17 - 19	Agriculture		...	...	3	3
20 - 27	Anthropology		4	2	2	8
28 - 332	Economics		101	62	142	305
333 - 354	Education		6	16	...	22
355 - 365	graphy		10	1	...	11
366 - 391	History		19	...	7	26
392 - 393	Psychology		...	...	2	2
394 - 406	Sociology		13	...		13
407 - 409	Social Work		...	2	1	3
	Total		163	88	158	409

Part 1. Research Projects

ADULT EDUCATION

Sri Venkateswara University

1. A study of Job satisfaction of Adult Education Supervisors in Andhra Pradesh.

A : —

O : To estimate the general level of job satisfaction / dissatisfaction among adult education supervisors, find out the influence of personal and demographic variables on them and relationship between job satisfaction and job related variables.

M : Information on personal and demographic variables collected by using a personnel data sheet. Analysis of variance, t-test, F-test, simple random sampling consists of 500 supervisors working in the 52 Adult Education projects in Andhra Pradesh.

Ph.D. : Jan 1992 : 1987

R : P. V. Subba Reddy

S : B. Niranjan Reddy

2. An enquiry into the Job satisfaction among cement factory workers in Andhra Pradesh.

A : Workers education

O : To find out the relationship among the production, productivity and Job satisfaction of workers, enquire into the various determinants of job satisfaction and suggest various measures for developing the feeling of job satisfaction.

M : The study is based on 500 workers employed in Cement factories in Andhra Pradesh and linear systematic random sampling was employed. The sample of 500 workers selected from the cement factories of Andhra Pradesh. Interview schedule and observation method used.

Ph.D. : Jan. 1988 : Feb. 1992

R : S. Khader Basha

S : B. Niranjan Reddy

3. A Study of factors associated with Absenteeism among industrial workers in Nellore District.

A : Workers Education

O : To find out the relationship between Job Satisfaction and Absenteeism, the influence of personal factors (age, marital status, family size etc) and the relationship between Absenteeism and workers' relation with supervisors.

M : Questionnaire method used. The sample consists of 600 workers of 5 different factories in Nellore District in Andhra Pradesh (Chisquare), x^2 and t-tests employed.

Ph.D. : June 1988 : June 1991

R : K. Sudharani

S : B. Niranjan Reddy

Sri Venkateswara University College,
Tirupathi

4. Curriculum Designing in Health Education for Rural Adults in Chittoor District

O : To find out the knowledge level of adults in health aspects, educational needs of the adults in the area of health and the opinion of the doctors, health workers and volunteers regarding the aspects of health on which adults need to be educated.

M : Rating scale, opinionnaire, questionnaire and interview used.

Ph.D. : Aug 1987 : July 1992

R : G. Vishnu Madhavi Latha

S : V. L. N. Reddy

5. Knowledge and Educational needs of Rural Adults in Environmental education

A : Environmental Education

O : To find out the levels of knowlege and educational needs of rural adults in all the areas of environmental education, the significant difference of knowledge and educational needs of certain groups of rural adults, the priority items of environmental education such as air pollution, water pollution, noise pollution, energy, forests, mines & dams, land pollution, environmental sanitation, population, food and environmental legislation.

M : Questionnaires and interview and Annova technique used to analyse data from various rural adult groups such as adult education learners, adult education volunteers, non-formal education instructors, organised and unorganised workers, elementary school teachers, anganwadi teachers village development officer, village sarpanches and health workers.

Ph.D. : Nov 1988 : May 1992

R : Uma Devi Doddapaneni

S : V. L. N. Reddy

6. Development and Problems of Adult Education with special reference to women in Chittoor District

A : Women Education

O : To study the development of adult education programmes in Chittor district during the last 10 years, identify the problems of educating women as perceived by adult women labourers, supervisors and instructors and compare the problems faced by the instructors, supervisors and learners themselves.

M : Secondary sources to collect data relating to development of adult education programmes ; and problems were identified through interview techniques.

Ph.D: Nov 1988: Angust 1992

R : A Manjula

S : V. L. N. Reddy

7. Knowldege, Attitude and Practices of Women in the Selected Household Technologies.

A : Women's Education

O : To identify the different household technologies that are available to reduce the drudgery of women, assess the levels of Knowledge, attitude and practices of household technologies among women, study the influence of socio-economic factors on the knowledge, attitude and practices of household technologies and suggest certain measures for the effective use of household technologies to reduce the drudgery of women

M : Questionnaire schedule, rating scale and check-list to measure the knowledge, attitude and practices respectively. Statistical techniques like mean, standard deviation, 't' test and 'F' ratio and correlation and regression analysis used

Ph.D : June 1993: Sep 1990

R : R. B. Satyavathi

S : M. C. Reddeppa Reddy

8 An Evaluative Study of Adult Education Programme in Rayalaseema Region (AP)

A : Evaluation & Monitoring

O : To identify the socio-economic and demographic characteristics of the literacy centres, know the socio-economic background and training of volunteers and study the socio-economic characteristics of the learners affecting the acquisitions of literacy, functionality and socio awareness

M : A random sample of literacy centres drawn at each of the selected literacy centres, five learners, and the volunteers of the centre selected. Questionnaires for learners and volunteers and rating scales for the appraisal. Mean standard deviation, 't' test, correlation and regression analysis used.

Ph.D : Oct 1989 : Dec 1992

R : P. Siddaiah

S : M. C. Reddeppa Reddy.

9. Literacy and its socio-economic correlates in Andhra Pradesh with special reference to Rayalaseema region.

A : Literacy and Development

O : To identify the socio-economic factors related to literacy level, examine the nature of relationship between literacy and socio-economic and demographic variables, compare the villages of low and high literacy and study the factors for the same and suggest some measures for increasing the literacy rate.

M : Village information from secondary sources and information on families from interview schedules. Techniques such as correlation, regression analysis used.

Ph.D: Oct 1989: March 1993

R : P Jani Reddy

S : M C Reddeppa Reddy

10. Performance requirements of worker-teachers as perceived by the worker teachers of workers' Education centres.

A : Adult Education

O : To identify the requirement level of performance items as perceived by the worker teachers in workers' education centres, know the differences in the perception of the requirement level of sub-area of performance items between variables, different age, caste, income and educational groups.

M : Numerical rating scale used for indentifying the performance requirements of worker teachers, identifying the requirement level of performance item. The average requirement level experienced by the worker-teachers in performing his job is found by calculating the mean, then rank order list is prepared. To know the difference between the area-wise means of the two groups 't' value is calculated and its significance tested

formula: 't' ratio = $\frac{DM}{SE}$ (or) $\frac{DM}{D}$

M. Phil. 1985: 1987

R : G. Madana Mohan Reddy

S : B. Niranjan Reddy

11. A study of absenteeism among industrial workers in Chittoor District

A. Adult Education

O : To identify the causes of absenteeism among industrial workers, study their problems and identify the factors which are related to absenteeism and suggest the remedies to reduce them

M : Questionnaires were divided into no. of groups based on different variables like age, marital status, wage bonus etc.

M. Phil: 1985: 1987

R : C. Saraswathamma

S : B. Niranjan Reddy

12. A study of job satisfaction among industrial workers of Chittoor District.

A : Adult Education

O : To know how far the workers are satisfied with their jobs, find out the association between opinions and the employees that are working in the industries and if there is any significant difference between workers and the variables like age, experience etc.

M : Questionnaire method used and administered to the workers

M. Phil : 1989 : 1991

R : K. Omkar Rao

S : B. Niranjan Reddy

13. Determinants of effective communication in Adult education

A : Methods and media in Adult Education

O : To identify the factors which determine the effective communication, study the relationship between communication effectiveness and the socio-economic characteristics of the volunteers in the literacy centres and suggest measure for effective communication in the literacy centres.

M : Questionnaire and rating scale used in collections of data. Mean, standard deviation, value and correlation analysis used

M. Phil : Oct 1989 : Dec 1992

R : M. Mallikarjuna

S M. C. Reddappa Reddy

14. Motivational Factors Influencing the enrolement of learners in the Chittoor Literacy Campaign.

A : Literacy

O : To identify the motivational factors influencing the enrolment of learners in the litearcy centres; know the efforts made by the volunteers in enrolling learners; identify the problems faced by the volunteers in entrolling the learners in the literacy centres; and explore the motivational strategies to be adopted.

M : Checklist, rating scale and questionnaire schedule, mean, standard deviation 't' test and critical ratio used

M. Phil : July1991 : April 1992

R : M. Sowjanya

S : M. C. Reddeppa Reddy

University of Madras

Dept. of Adult and Continuing Education.

15. A Study of the knowledge and Attitude of the Shore Labour of the Madras Port Trust with a view to formulating a non formal curriculum

A : Continuing Education

O : To study the paradox between affluence and illiteracy among the shore labour and identify needs and means to resolve this lacuna

M : Scheduled interview, survey, research design, Pearson product movement, correlation technique used

Ph.D : August1978 : July 1990

R : Jamuna Kalyani Sridharan

S : R. Jayagopal

16. A study of knowledge of parents of elementary school children and their attitudes towards population and population education and family welfare programmes in Tindivanam Educational District (Tamilnadu)

A : Population Education

O : To assess the knowledge of parents regarding population problems, find out attitudes of of parents towards population education and family welfare programmes and develop curriculam on population education

M : Multivate regression (analysis used)

Ph. D : Sep 1985 : Sep 1990

R : G. Thangavelu

S : R. Jayagopal

AGRICULTURE

Tamil Nadu Agricultural University

17. Non formal Agricultural Education through correspondence course—A Critical analysis

A : Non-formal Agricultural Education

O : To gain knowledge in dry farming through (non-formal adult education) NAE and the symbolic adoption behaviour of the learned technologies by the participants, the factors associated with gain in knowledge and the symbolic adoption behaviour of the participants and the association between them.

M : Study conducted in a village of dry farming district in Tamil Nadu State, with 50 literate dryland farmers. A course content in dry farming on the norms of non-formal education, administered to the participants. Data on the socio-economic characters of the participants collected through interview schedule. Pre-entry knowledge and post-entry knowledge of the participants assessed using teachers made knowledge test.

Of the 9 lessons developed, knowledge gain tests conducted for 8 lessons, barring first lesson, which was developed to provide a philosophical base, so as to motivate the learners to learn enthusiastically from subsequent lessons. Norms for the non-formal agricultural education selected based on the opinion of judges in the field of extension education and followed at all stages in conducting correspondence course. The participants were included at all the stages in organising and administering the non-formal education programme. Case studies also conducted to know the opinion of the participants about the correspondence education, level of symbolic adoption and leadership developments.

M. Statistical methods such as percentage analysis, Omega 't' test, Cochron Q test, F test, Chi-square test, correlation, multiple regression, path analysis and factor analysis used.

Gen : ongoing

R : S. Somasundaram

S : G. Perumal

18. AEX 269. Post Graduate Teaching, Research and Extension Education of TNAU-An Analysis

A : Agricultural Education

O : To study the perception of PG teachers towards the Postgraduate Education system under trimester system of education and the extent of involvement of PG. teachers in extension education activities.

M : The study conducted with a sample of 37 teachers in each campus viz Agricultural College and Research Institute, Coimbatore, Madras Veterinary College Madras and 39 teachers from Agricultural College and Research Institute, Madurai. A Structured questionnaire was used in getting the response

Gen : 1998 : 1990

R : T Radhakrishnan

S : G Perumal

19. Knowledge and use of soil testing facilities by farmers.

A : Utilisation of Infrastructural facilities

O : To know the knowledge level of farmers in taking upsoil samples, the extent of utilisation of soil testing laboratories by the farmers and identify the constraints associated with the use of soil testing facilities.

M : Sakkottai block of Karaikudi taluk of Thevar Thirumaganar district of Tamilnadu selected based on the backwardness of the district. Totally 104 respondents selected from the nine selected villages in the block. The respondents personally interviewed with the help of the well structured interview schedule

Gen : 1989 : 1990

R : V. Ravichandran

S : N. Viswanathan

ANTHROPOLOGY

Andhra University

20. Social inequality among tribals of AP

A : Social Anthropology

O : To study about the social life of the tribals in a Tribal village of Visakhapatnam Dist, the patterns of interaction between the different tribal groups within the village and outside the village and examine the social hierarchy among the tribals

M : The conventional anthropological methods like, observation, participant observation, schedule, interview, case study etc. used to collect the empirical data

Ph. D : Jan 1990 : Dec 1992

R : Sathyapaul kumar

S : V. Subramanyam

21. Demogenetic survey of Mali tribe of Andhra Pradesh

A : Population genetics

O : To evaluate the fertility and mortality trends, study the growth and physique of populations, observe the genetic variability of populations and evaluate the effect of consanguinity on fertility, mortality, morbidity and growth of population

M : schedule survey, interview method, physical measurements and laboratory analysis

Ph. D : Jan 91 : Dec 93

R : B. E. Babu

S : J. M. Naidu

22. Demographic profile of Dhulia tribes of Andhra Pradesh and Orissa

A : Demography

O : To find out age, sex composition, sex ratio, age at different events of women's reproductive period and marriage patterns

M : Schedule survey, interview method, physical measurements and laboratory analyses

M Phil. : Jan 91 : ongoing

R : G. Ganapathy

S : J. M. Naidu

23. Demographic profile of Mulia-tribes of AP and Orissa

A : Physical Anthropology

O : To find out age, sex composition, sex ratio, age at different events of women's reproductive period and marriage patterns

M : Schedule survey, interview method, physical measurements and laboratory analysis

M.Phil : July 1992 : ongoing

R : S. Hemakumari

S : J. M. Naidu

24. Tribal entrepreneurship in Visakhapatnam, Vizianagaram - Srikakulam districts

A : Social / Cultural Anthropology

O : To identify the potential areas of enterpreneurship among the tribals, the problems of tribal entrepreneurs

M : Schedules, interviews, case studies and observation

Gen : April 1988 : October 1992

R : K. E. Rajpramukh

S : (Ind)

Karnataka University

25. Hanbars - a study (of pastoral community of Maharashtra - Karnataka taluk)

A : Socio-cultural Anthropology

O : To study the change and continuity

M : Ethnographic study

Ph.D. : 1986 - 1991

R : Aruna Hallikeri

S : K. G. Gurumurthy

26. Nagore - E - Shariff Durga - A Sacred complex study

A : Socio-cultural Anthropology

O : To study the sacred complex of Nagore and its role in Hindu-Muslim Synthesis and unity

M : Anthropological study

Ph D. : 1990 : ongoing

R : K. G. Gurumurthy

S : SSA Saheb

27. A study of the problem of the Aged and Need for Social Intervention

A : Socio-cultural Anthropology

O : To know the condition of the aged & plan meaningful programmes

M : Anthropologieal study

Gen ; Nov 1990 : Nov ; 1991

R : K. G. Gurumurthy

S : (Ind)

ECONOMICS

Osmania University

28. Problems of Labour Absorption in AP

A : —

O : —

M : —

Ph.D : 1991 (awarded)

R : K. Ramadevi

S : K. S. Upadhyay

29. Growth factor productivity in AP Manufacturing Industries

A : —

O : —

M : —

Ph.D : 1991 (awarded)

R : T.L.N. Swamy

S : J. Mahender Reddy

30. Impact of New Agricultural Technology on Production and Employment

A : —

O : —

M : —

Ph.D : 1991 (awarded)

R : K. Pochanna

S : J. Mahender Reddy

31. Working of Joint Ventures : Units - A study in AP

A : —

O : —

Ph.D : 1991 : (awarded)

R : Pakki Reddy

S : J. Mahender Reddy

32 Incidence of Public Expenditure on Education

A : —

O : —

M : —

Ph.D : 1991 : (awarded)

R : S. Sudhakar

S : B. Satyanarayan

33. Process of Industrialisation in India 1965-85

A : —

O : —

Ph D : 1991 : (awareed)

R : K. M. Narasimham

S : K. S. Upadhyay

34. Economics of Wool Industry in AP with special reference to Mahabubnagar District

A : —

O : —

M · —

Ph.D : 1991 (awarded)

R : M. Ramakanth Rao

S : K. S. Upadhyay

35. Growth and Instability of Food-grain production in the four Southern States in India

A : —

O : —

M : —

Ph. D : (awarded)

R : N. Ramakrishna Reddy

S : J. Mahender Reddy

36. Energy and Economic Growth with Special reference to Census Manufacturing Sector 1960-80

A : —

O : —

M : —

Ph. D : (awarded)

R : P. Rama Rao

S : J. Mahender Reddy

37. Ground Water Development vis-a vis other forms of Irrigation

A : —

O : —

M —

Ph. D : (awarded)

R : P. V. Krishnam Raju

S : A.R.K. Murthy

38. State Public Sector Enterprises is AP-Analysis of their performance

A : —

O : —

Ph. D : (awarded)

R · V. Rama Rao

S : A Nagaraj

39. Terms of trade between agriculture and industry with special reference to Telangana

A : —

O : —

M : —

Ph. D : ongoing

R : K. Pratap Reddy

S · M Yadava Reddy

40. Critical Appraisal of the working of the APS Cooperative Banks in Agricultural development

A : —

O : —

M : —

Ph. D : ongoing

R : S. P. Chary

S : Venkataramana

41. Credit planning - role of Commercial Banks in India's Economic Development since Nationalisation

A · —

O : —

M : —

Ph. D: ongoing

R : Venkatachar Joshi

S : K. S. Upadhyay

42. Performance of Regulated Markets with special reference to farm prices and marketed surplus of selected crops - A Case Study of three districts in AP

A : —

O : —

M : —

Ph. D : ongoing

R : A Lalitha

S : S. Kishan Rao

43. Impact of Irrigation on Income Distribution

A : —

O : —

M : —

Ph. D : ongoing

R : Krishnamurthy

S : M. Yadava Reddy

44. Consumption pattern and basic needs – A case study of slum dwellers in the twin cities of Hyderabad - Secunderabad

A : —

O : —

M : —

Ph.D: ongoing

R : A. G. Moss

S : K.S. Upadhyay

45. Export of Manufactures from India in 1970's — An Evaluation of performance and identification of determinants

A : —

O : —

M : —

Ph.D: ongoing

R : J. Rajeswar Rao

S : J. Mahender Reddy

46. Import Substituting Industrialisation in India

A : —

O : —

M : —

Ph.D: ongoing

R : G. Ramakrishna

S : A.R.K. Murthy

47. Substitution between conventional and Non-conventional sources of energy in different farms size groups

A : —

O : —

M : —

Ph. D. : ongoing

R : Jacob George

S : J. Mahender Reddy

48. Export Potential of India's Engineering Industries

A : —

O : —

M : —

Ph. D. : ongoing

R : V. K. Thomas

S : B. Satyanarayan

49. Export Promotion in India-Factors that impede it and solution through rational integrated approach

A : —

O : —

M : —

Ph. D. : ongoing

R : R. Kuppu Rao

S : K. S. Upadhyay

50. Impact of DIC Programme on Rural Economy-A Study of Three selected Districts in AP

A : —

O : —

M : —

Ph. D. : ongoing

R : A. D. Rama Rao

S : K. S. Upadhyay

51. The Impact of Drought Prone Areas on Production, Income and Employment-A Case Study of Kurnool District

A : —

O : —

M : —

Ph. D. : ongoing

R : K. Someswaraiah

S : J. Mahender Reddy

52. Cooperatives and Agricultural Development in Andhra Pradesh

A : —

O : —

M : —

Ph. D. : ongoing

R : Syed Dastagiri Pasha

S . K. S. Upadhyay

53. Pattern of Industrial Development

A : —

O : —

M : —

Ph. D. : ongoing

R : V. Rajamahender Reddy

S : M. Yadava Reddy

54. Performance of Anti-Poverty Programmes: A Case Study of the Scheme for providing self-employment to educated unemployed youth in Andhra Pradesh

A : —

O : —

M : —

Ph. D : ongoing

R ; K. Sateesh Reddy

S · B. Sathyanarayan

55. Impact of social over-head capital on small-scale Industries in AP

A : —

O : —

M : —

Ph. D : ongoing

R : M. Nirmal Reddy

S : B. Sathyanarayan

56. India's Agricultural Exports-Analysis of Determinants and Prospects

A : —

O : —

M : —

Ph. D : ongoing

R : B. Gangaiah

S : Mahender Reddy

57. Functioning of public distribution system and its impact on Weaker Sections with Special Reference in Andhra Pradesh

A : —

O : —

M : —

Ph. D · ongoing

R : G. V. Ranga Rao

S M. Yadava Reddy

58. Identification of Backward Regions-A Study of Regional Disparities in Andhra Pradesh

A : —

O : —

M : —

Ph. D : ongoing

R : J. Pandu Ranga Reddy

S : M. Yadava Reddy

59. Evaluation of Integrated rural development programmes - A Case Study of Two Mandals in Medak Dist

A : —

O : —

M : —

Ph. D · ongoing

R : G. Krishnaiah

S : J. S. Narayan Rao

60. Development Planning & Disparities in AP (An Inter-state Regional Analysis between 1956-1980)

A : —

O : —

M : —

Ph. D : ongoing

R : Asif Jahan

S : J. S. Narayan Rao

61. Pattern of Industrial Development Inter-state Comparisons

A : —

O : —

M : —

Ph. D : ongoing

R : V. Rajeswari

S : K.S. Upadhyay

62. Employment and wage Pattern of Agricultural Labourers in AP for the period 1965-85

A : —

O : —

M : —

Ph. D : ongoing

R : N. Venkataiah

S : M. Yadava Reddy

63. Analysis of Agricultural Subsidies-A Case Study of AP

A : —

O : —

M : —

Ph. D : ongoing

R : K. S. Reddy

S : R. Radhakrishna

64. Productivity and Efficiency under Different Sources of Irrigation - A Case Study of AP

A : —

O : —

M : —

Ph. D : ongoing

R : P. Sanjeeva Reddy

S : B. Satyanarayan

65. Structural Changes in Agriculture-A Case Study of AP. during the period 1960-1985

A : —

O : —

M : —

Ph. D . ongoing

R : V. Ramesh

S : M Narasimhulu

66. Pattern of Development and the Incidence of Rural Poverty in Three Regions of AP

A : —

O : —

M : —

Ph. D · ongoing

R : I Annapurna

S : K. S. Upadhyay

67. Financing of Indian Five year Plans with special reference to taxation

A : —

O : —

M : —

Ph D : ongoing

R : M. Venkateshwarlu

S : B, Satyanarayanan

68. Evaluation of IRDP-A Micro level Study of Karimnagar District

A : —

O : —

M : —

Ph. D : ongoing

R : K. Pratap Reddy

S : M. Yadava Reddy

69. Regional Cooperation Among SAARC Countries : with Special Reference to Trading pattern

A : —

O : —

M : —

Ph. D ongoing

R : N. Chandramouli

S : B. Satyanarayan

70. Systems Approach to Development A Study on Irrigation

A : —

O : —

M : —

Ph. D : ongoing

R : Savitha Devi

S : B. Satyanarayan

71. Andhra Pradesh Exports Trade : Trends and Prospects (1970-2000 AD)

A : —

O : —

M : —

Ph. D : ongoing

R : Y. Pushpalatha

S : J. S. Narayan Rao

72. Saving Behaviour in India with particular reference to Household Savings

A : —

O : —

M : —

Ph. D : ongoing

R : S. L. Narayana

S : J. Mahender Reddy

73. A Study on Seasonality of Due Dates for Crop Loans

A : —

O : —

M : —

Ph. D : ongoing

R : S. K. Balasundram

S J. Mahender Reddy

74. An Empirical Analysis of Demand for money in India During the period 1969-70 to 1988-89

A : —

O : —

M : —

Ph. D : ongoing

R : DVG Krishna

S : M. Yadava Reddy

75. Impact of Agriculture Development on Rural Poverty: A Study in Nalgonda District of Andhra Pradesh

A : —

O : —

M : —

Ph. D : ongoing

R : P. Srinivas Reddy

S : K. Chakradhar Rao

76. Structure, Growth and Sectoral Trends in Indian Economy since Independence

A : —

O : —

M : —

Ph. D : ongoing

R : A Umapathi Rao

S : S. Kishan Rao

77. Impact of Gramodaya Schemes on Income and Employment Generation

A : —

O : —

M : —

Ph. D : ongoing

R : S. Prakash Rao

S : J. S. Narayan Rao

78. Impact of Regional Rural Banks on Weaker Sections

A : —

O : —

M : —

Ph. D : ongoing

R : A. Raja Rao

S : K. Chakradhar Rao

79. Rural Permanent Housing Scheme in Medak

A : —

O : —

M : —

Ph. D : ongoing

R : M. Ramulu

S : Rahul Sastry

80. Impact and Evaluation of Single Window Credit System in Andhra Pradesh (A Case Study of Nizamabad)

A : —

O : —

M : —

Ph:D : ongoing

R : A. Padma

S : Sidda Goud

81. Pattern of Public Expenditure in AP since 1976

A : —

O : —

M : —

Ph.D. : ongoing

R : B. Narayana

S : M. Narasimhulu

82. Relationship between Size and Returns in a Less Developed Area (A Case Study of Kothagudam Mandal)

A : —

O : —

M : —

Ph.D : ongoing

R : K. Prameela

S ; G. Gopal Reddy

83. Rural Employment Generation Through the DRDA (A Comparative study of "TRYSEM" in Two Mandals of Tribal and Non-Tribal Areas in Khammam Dist of AP)

A : —

O : —

M : —

Ph.D : ongoing

R : J. Narasimha Rao

S : A. Muralidhar Rao

84. Elasticity of Substitution and Returns to Scale in Selected Manufacturing Industry Groups in Andhra Pradesh

A : —

O : —

Ph. D : ongoing

R : N. Sambasiva Rao

S : S. Indrakanth

85. Analysis of Inter-State Industrial Disparities in India

A : —

O : —

Ph D : ongoing

R : A. Anuradha

S : A.V.V.S.K. Rao

86. Growth and Pattern of Fertilizer Consumption in A.P. - Regional Analysis

A : —

O : —

Ph.D : ongoing

R : P. Vanaja Rani

S : V. Brahmanandam

87. An Analysis of Productivity in Manufacturing Sectors of Southern States in India

A : —

O : -

Ph.D : ongoing

R : P. Subramaniam

S : A.V.V.S.K. Rao

88. Asset Distribution and Occupational Structure (Miryalaguda Mandal)

A : —

O : —

Ph.D . ongoing

R : G. Srinivas

S : Tippa Reddy

89. Impact of Irrigation on Composition of Cost of Cultivation

A : —

O : —

Ph. D : ongoing

R : K. Srinivas

S : Tippa Reddy

90. Analysis of Structure of Municipal Finance - Interrelation to civic functions (A Case Study of Khamman Municipality)

A : —

O : —

Ph.D : ongoing

R : Ch. Sudarshan

S : K. Sai Hara Gopal

91. The Conditions of Organised and Unorganised Labour in Ranga Reddy District : A Comparative Study

A : —

O : —

Ph.D : ongoing

R : K. Kamala

S : K. Chakradhar Rao

92. A Study of Productivity in Hyderabad Allwyn Ltd.

A : —

O : —

Ph.D : ongoing

R : D. Madhusudhan

S : Kamala Subramaniam

93. Levy System and Performance of Rice Mills (with reference to the mills in Miryalaguda Mandal)

A : —

O : —

Ph. D : ongoing

R : B. Anand

S : K. Malla Reddy

94. Family Planning Programme in Andhra Pradesh - A Case study of Khammam District

A : —

O : —

Ph. D : ongoing

R : Venkateshwarlu

S : H. Venkateshwar Rao

95. Economic and Educational Status of Women Employees (NGOs) Their impact on Consumption (A Case Study of Osmania University)

A : —

O : —

M : —

Ph. : ongoing

R : Sharada Devi

S : P. Neerada Reddy

96. Economics of Dry Land Farming A Case Study of Mahabubnagar District in Andhra Pradesh

A : —

O : —

M : —

Ph. D : ongoing

R : U. Venkataiah

S : V. Suguna

97. Socio-Economic Analysis of Coal Workers at Manugooru in Khamman Dist.

A : —

O : —

M : —

Ph. D : ongoing

R : B. Santosham

S : S. Indrakanth

98. Cost and Returns in Stone Polishing Industry - Comparative Study of Performance of Selected Forms in Tandur

A : —

O : —

M : —

Ph. D : ongoing

R : B. Karunakar

S : S. Indrakanth

99. Regional Disparities in AP with Special reference to Education

A . —

O : —

M : —

Ph. D : ongoing

R : Madhavailatha

S : S. Kishan Rao

100. Industrial sickness of small scale industries in Andhra Pradesh

A : —

O : —

M : —

Ph. D : ongoing

R : T. V. Lakshmi

S : Tippa Reddy

101. Inter-Farm Distribution of Agricultural Incomes (A Case Study of Nalgonda Dist.)

A : —

O : —

M : —

Ph. D : ongoing

R : K. Amarender Reddy

S : K. Chakradhar Rao

102. Trends and Pattern of Electricity Consumption in Andhra Pradesh

A : —

O : —

M : —

Ph. D : ongoing

R : V. Surender Rao

S : S. Indrakanth

103. Impact of infrastructure in Economic Devolopment - A Case Study of Atmakoor in Nalgonda Dist

A : —

O : —

M : —

Ph. D : ongoing

R : K. Venkateshwarlu

S : Kamala Subramaniam

104. Occupational Hazards and Living Standards of Beedi workers (A Case Study of 2 Mandals in Warangal Dist)

A : —

O : —

M : —

Ph. D : ongoing

R : Maisadri

S · V. Suguna

105. Nature and Magnitude of Rural Unemploymsnt (A Case Study of Mahububnagar)

A : —

O : —

M —

Ph. D : ongoing

R : J. Papalarayadu

S : J. S. Narayan Rao

106. Social Forestry & Rural Development in Andhra Pradesh with special reference to Mahabubnagar Dist

A : —

O : —

M : —

Ph. D : ongoing

R : T. Padmavathi

S : K. Malla Reddy

107. Impact of DPAP with Focus on Minor Irrigation and Animal Husbandry-A Case Study of Mahabubnagar Dist

A : —

O : —

M : —

Ph. D : ongoing

R : K. Lakshmaiah

S : K. Sai Hara Gopal

108. Working Conditions and Magnitude of Exploitation of Child labour in Construction Industry

A : —

O : —

M : —

Ph. D : ongoing

R : S. Sunitha

S : P. Neerada Reddy

109. The Demand for Child Education A Socio-economic Study in Mellachervu Mandal (Nalgonda Dist AP)

A :

O : —

M · —

Ph. D : ongoing

R : D. Saidulu

S : Rahul Sastry

110. Scale and Capital Intensity in Manufacturing Industries (Small scale) in AP from 1979-80 to 1988-89

A : —

O : —

M · —

Ph. D · ongoing

R ; M. Renuka

S : B. Shivareddy

111. Analysis of Industrial Structure of Andhra Pradesh in Terms of Employment

A : —

O : —

M : —

M. Phil : ongoing

R : S. V. Venkateshwarlu

S : AVVSK Rao

112. Analysis of Industrial Structure of Andhra Pradesh in terms of Employment

A : —

O : —

M : —

M. Phil : ongoing

R : Md. Osman Ali Pasha

S : S. Indrakanth

113 A Comparative study of input use in Agriculture under Irrigated and Unirrigated conditions (A Case of Nalgonda District AP)

A : —

O : —

M : —

M. Phil : ongoing

R : D. Shyam Sunder Reddy

S : K. Pochanna

114. Industrial Disputes in Andhra Pradesh 1980-1990

A : —

O : —

M : —

M. Phil : ongoing

R : B. Srinivas Rao

S : J. S. Narayan Rao

115. Evaluation of Gramodaya Programmes : A Case Study of Cherial Taluk, Warangal District of Andhra Pradesh

A : —

O : —

M : —

M. Phil : ongoing

R : K. Yakaiah

S : Sidda Goud

116. Some Adverse Economic Effects of Industrial Pollution : A Case Study of Patancheru

A : —

O : —

M : —

M. Phil : ongoing

R : M. Sudha

S : Prabh Panth

117. Linkages between Small and Large Scale Industries in AP: Some Evidence

M. Phil : ongoing

R : M. Padma

S : TLN Swamy

118. Pattern of Income, Consumption and Other Correlates of Allwyn Workers : Some Evidence

A : —

O : —

M : —

M. Phil : ongoing

R : G. Maddilety

S : A. Muralidhar Rao

119. A Study on Population Distribution in Andhra Pradesh (1951-1991)

A : —

O : —

M : —

M. Phil : ongoing

R : D. Latha Rani

S : K. Mallareddy

120. Inequalities in Agricultural Sector-A Case Study of Kodad Mandal

A : —

O : —

M : —

M. Phil : ongoing

R : D. Bal Ram

S : A. Nakula Reddy

121. A Comparative Study of Land and Labour as Basic inputs in agriculture (A Case Study of Comparative analysis of Thailand and India).

A : —

O : —

M : —

M. Phil : ongoing

R : I. J. Pushpalatha

S : G. Gopal Reddy

122. A Study of External Borrowing and its impact on Indian Economy since 1980-1981

A : —

O : —

M : —

M. Phil : ongoing

R : C.H. Mahender

S : Gautham murthi

123. Performonce of Wage Employment in Asian Countries (A Comparative Study of Wage Employment between India and Pakistan)

A : —

O : —

M : —

M. Phil : ongoing

R : E. Purushotham

S : A. Muralidhar Rao

Sri Krishnadevaraya University, Anantapur

Dept. of Rural Development

124. Rural Banking and Agricultural Finance A Case Study of Commercial Banks in Rayalaseema Region in AP

A : —

O : —

M : —

Ph.D : Jan 1990 (awarded)

R : D. Chenna Reddy

S : K. V. Reddy

125. Dairying in rural development : A case study of dairy cooperatives in AP

A : —

O : —

M : —

Ph.D : 1990 (awarded)

R : G. Sreedhar

S : K. V. Reddy

126. Inter-district variations in agricultural productivity in Rayalaseema region of AP

A : —

O : —

M : —

Ph. D : July 1990 (awarded)

R : P. Nadamuni

S : K. V. Reddy

127. Grass root entrepreneurship : Emerging trends (An analysis of Gramodaya in Anantapur Dist)

A : —

O : —

M : —

Ph. D : July 1990 (awarded)

R : C. Harinarayana Rao

S : Ch. Uma Mohan

128. Planning and Management of Rural Development Projects - An Action research in Kurnool District (AP)

A : —

O : —

M : —

Ph.D : Sep. 1990 (awarded)

R : D. Chakravarthy Reddy

S : V. T. Naidu

129. Regional Rural Banks and Financing of weaker sections : A Case Study of SAGB in Anantapur Dist, AP

Ph.D : Feb. 1992 (awarded)

R : K. V. Sai Ramamma

S : K. V. Reddy

130. Social Mobility among Harijans A Study in a Village of Anantapur Dist.

A : —

O : —

M : —

Ph.D. : Jan. 1990 (awarded)

R : R. Vijaya Krishna Naidu

S : P. Muralidharudu

131. Integrated rural development programme (A Study of problems and prospects of the beneficiaries at Mylavaram mandal in Cuddapah dist

A : —

O : —

M : —

Ph. D : Sep 1990 (awarded)

R : D. Babu

S : P. Muralidharudu

132. Entrepreneurial awareness and rural industrialisation : Entrepreneurial awareness among rural educated youth (A Study of Plus Two level students in Anantpur District)

A : —

O : —

M : —

Ph. D : Dec 1990 (awarded)

R : K. Somasekhar

S : C. Sudhakar

133. Training of Rural youth for self employment : A study on its implementation and impact in Banagani Palli mandal in Kurnool Dist

A : —

O : —

M : —

Ph. D : Dec 1990 (awarded)

R : C. Chandramouli

S : P. Muralidharudu

134. DRDA in Anantpur District : A study on its role in rural development with special reference to DWCRA.

A : —

O . —

M : —

Ph. D : Dec 1990 (awarded)

R : N. G. Tulasiram

S : V.R. Reddy

135. Role of voluntary organisations for rural development : A Case study of KIPDIE

A : —

O : —

M : —

Ph. D : Dec 1990 (awarded)

R : K. Ramappa

S : K. Govindappa

136. Implementation of TRYSEM : A study in Anantpur District of AP

A : —

O : —

M : —

Ph. D : Dec : 1990 (awarded)

R : R. Suguna Kumari

S : V. T. Naidu

137. A study of socio-economic conditions of Agricultural labour (with special reference to Maddikera mandal in kurnool district of AP)

A : —

O : —

M : —

Ph. D : Jan 1991 (awarded)

R P. Narayana

S : N. V. Narayana

138. Rural artisans in urban setting : A case study of migrant silk weavers in Dharmavaram of Anantpur District

A : —

O : —

M : —

Ph. D : Feb : 1991 (awarded)

R : E. N. Anjaneyulu

S : C. Sudhakar

139. Occupational diversification and entrepreneurship : A study on migrant silk weavers of Dharmavaram town in Anantpur District

A —

O : —

M : —

Ph. D : Feb : 1991 (awarded)

R : T. Viswanath

S : C. Sudhakar

140. Regional rural banks (with special reference to SAGB, its functioning at Kothachervu mandal in Anantpur Dist)

A : —

O : —

M : —

Ph. D : March 1991 (awarded)

R : B. Sreeramulu

S : V. T. Naidu

141. Bio-energy for rural development A study of working Bio-gas plants in Anantpur Dist

A : —

O : —

M : —

Ph. D : July 1991 (awarded)

R : K. Krishna Reddy

S : K. V. Reddy

142. A study of working and organisation of cocoon regulated market yards in Anantpur District with special reference to Dharmavaram

A : —

O : —

M : —

Ph. D : Jan 1992 (awarded)

R : A. C. Rangappa

S : K. Bhaskar

Administrative Staff College of India, Hyderabad

143. Case Study on Vijaipur Project

A : Agriculture and Rural Development

O : —

M : —

R : K. S. Ramesh A V. Srinivasan

S : National Fertilizers Ltd, New Delhi

144. Evaluation of Agricultural Programmes : Seed Distribution

A : Agriculture and Rural Development

O : —

M : —

Gen : Feb : 1990 (completed)

R : C. Sitapathi Rao, S. Turabal Hassan, T. V. Satyanarayana Rao, S. Raghuveer Rao

S : Commissioner and Directorate of Agriculture, Govt. of Andhra Pradesh, Hyderabad

145. Evaluation of Intensive Cattle Development Programme

A : Agriculture and Rural Development

O : —

M : —

R : K.S. Ramesh N. Prem Kumar

S : Directorate of Animal Husbandry, Govt. of Tamilnadu, Madras

146. Farmers Participation in Irrigation Management

A : Agriculture and Rural Development

O : —

M : —

Gen : June 1990

R : K. K. Singh, M.V.K. Siva Menon

S : Ford Foundation, New Delhi

147. Water users Co-operatives in Gujarat and UP : Rayama and Seras, and Basarahiya

A : Agriculture and rural Development

O : —

M —

Gen : 1990

R : K. K. Singh

S : (Ind)

148. Evaluation Study of the Soil Conservation Programme in the RVP Catchments of Mayurakshi

A : Agriculture and Rural Development

O : —

M : —

Gen : —

R : C. Sithapathi Rao N. Prem Kumar

S : Directorate of Soil Conservation, Govt. of Bihar, Patna

149. Mayurakshi River Valley Project : Evaluation Study of Soil Conservation Programme in the RVP Catchment

A : Agriculture and Rural Development

O : —

M : —

Gen : July 1990

R : A.A. Firdausi, C. Sithapathi Rao, N. Prem Kumar

S : (Ind)

150. Study of Watershed Management and Irrigation in Drought Affected Areas in the State of AP, Karnataka

A : Agriculture and Rural Development

O : —

M : —

Gen : December 1990

R : S. Turabul Hassan, C. Sithapathi Rao, S. Satish, N. Prem Kumar

S : Planning Commission, Govt. of India, New Delhi

151. Agriculture Technology Diffusion Policies in India

A : Agriculture and Rural Development

O : —

M : —

Gen : —

R : S. Satish

S : Overseas Development Institute (ODI), UK

152. Bharatiya Agro Industries Foundation's Cross Breed Dairy Cattle Programme : A Case Study of Collaboration between NGO and Public Sector Research in India

A : Agriculture and Rural Development

O : —

M : —

Gen : August 1990

R : S. Satish, John Farrington

S : (Ind)

153. Development of Castor Crop : A Participatory Technology Management Programme by NGOs, Public sector Research and Extension Agencies and Farmers in AP, India

A : Agriculture and Rural Development

O : —

M : —

Gen : November 1990

R : S Satish, T.J.P.S. Vardhan John Farrington

S : (Ind)

154. Asian Institute of Rural Development's Sericulture Programme : A Case of NGO Coalition and Coordination with public sector research and extension System

A : Agriculture and Rural Development

O : —

M : —

Gen : November 1990

R : S. Satish, John Farrington

S : (Ind)

155. Auroville's Greenwork Programme: A Case Study of the Challenges Encountered by an Indian NGO in Agricultural Technology Development and Management.

A : Agriculture and Rural Development

O : —

M : —

Gen : March 1991

R : S. Satish

S : (Ind)

156. Evaluation of farmers Training in AP

A : Agriculture and Rural Development

O : —

M : —

Gen : —

R : A.A. Firdausi, C. Sithapathi Rao

S : Commissioner and Directorate of Agriculture, Government of Andhra Pradesh, Hyderabad

157. Farmers, Training Centres in Andhra Pradesh : An Evaluation

A : Agriculture and Rural Development

O : —

M : —

Gen : Jan 1991

R : A. S. Firdausi, C. Amar

S : (Ind)

158. Implications of Trade Liberalisation between India and Pakistan

A : International Trade

A : —

O : —

M : —

Gen : —

R : Arif A.Waqif, Anjana Chatterjee, M. Surendar Reddy

S : Friedrich Ebert Stiftung, New Delhi

159. Prospects for Joint Economic Activities Between Pakistan and India-Some Selected Dimensions.

A : Economic Cooperation

O : —

M —

Gen : July 1990

R : Arif A.Waqif, Anjana Chatterjee, M. Surender Reddy

S (Ind)

160. Multi-Level and Regional Planning Project

A : Planning

O : —

M : —

Gen : —

R : Arif A. Waqif, Balwanth Reddy Paramati Dasgupta, L. Sridharan and M. Surender Reddy

S : Planning Commission, Govt of India

161· Concepts and Categories of Rural Employment in India : A survey

A : Rural Economics

O : —

M : —

Gen : March 1991

R : Paramita Dasgupta

S · (Ind)

162. An approach to the Eighth and its succeeding Plans

A : Planning

O : —

M : —

Gen : January 1991.

R : Balwanth Reddy

S : (Ind)

163. Research Based Regional Workshop on SAARC Scenarios.

A : Regional Cooperation

O : —

M : —

Gen : —

R : Arif A. Waqif, M. Kiran Sankar Reddy

S : Friedrich Ebert Stiftung, New Delhi

164. SAARC Scenarios : A Review and Prognosis

A : Regional Cooperation

O : —

M : —

Gen : March 1991

R : Arif A. Waqif

S : (Ind)

165. Regional Workshop on SAARC Scenarios - Recommendations

A : Regional Cooperation

O : —

M : —

Gen : March 1991

R : Arif A. Waqif

S : SAARC Secretariat

166. Evaluation study of Solar Photovoltaic Systems.

A : Energy, Environment, Technology

O : —

M : —

Gen : —

R : S.S.R Prasad

S : Dept. of Non-Conventional Energy Sources, Ministry of Energy, Govt. of India, New Delhi

167. Report on Performance Monitoring on Solar Photovoltaic Systems in Andhra Pradesh (6 volumes).

A : Energy, Environment, Technology

O : —

M : —

Gen : June 1990

R : S. S. R. Prasad, D. S. Prasad, C. V. R. Krishna and Srinivasa Rao

S : (Ind)

168. Report on performance Monitoring of Solar Photovoltaic Systems in Madhya Pradesh (3 volumes)

A : Energy, Environment and Technology

O : —

M : —

Gen : July 1990

R : S.S.R Prasad, C.V.R. Krishna, K. Srinivasa Rao, D. S. Prasad M.V.R.K. Swamy

S : (Ind)

169. Technological Forecasting in Decision Making : Technology Informa-

tion Forecasting and Assessment Council (TIFAC)

A : Energy, Environment and Technology

O : —

M : —

Gen : —

R : B. Bowonder

S : Govt. of India, New Delhi

170. Technological Competence Building Strategy of Republic of Korea: Lessons for India-Report IV

A : Energy, Environment and Technology

O : —

M : —

Gen : September 1990

R. : B. Bowonder, T. Miyake

S : (Ind)

171. Economic Growth with Environmental Protection

A : Energy, Environment and Technology

O : —

M : —

Gen : —

R : B. Bowonder

S : Friedrich Ebert Stiftung, New Delhi, Bonn

172. Economic Growth with Environmental Protection : An Analysis of Environmental Subsidy in Industries.

A : Energy, Environment and Technology

O : —

M : —

Gen November 1990

R : B. Bowonder, S. S. Arvind, B. Venkat Rao

S : —

173 Industrial Automation Project Technology Information Forecasting Assessment Council (TIFAC)

A : Energy, Environment and Technology

O : —

M : —

Gen : —

R : B. Bowonder

S : Ministry of Science & Technology, Govt of India, New Delhi

174. Industrial Automation : Automated Assembly

A : Energy, Environment and Technology

O : —

Gen : Dec 1990

R : B. Bowonder, M. Kiran Shankar Reddy, V.V. Sharma

S : (Ind)

175. Industrial Automation : Semi conconductor Assembly

A : Energy Environment and Technology

O : —

M : —

Gen : December 1990

R : B. Bowonder, M. Kiran Shankar Reddy

S : (Ind)

176. Energy Management Practices at Cement Plant : A Case study

A : Energy, Environment and Technology

O : —

M : —

Gen : January 1991

R : S.S.R. Prasad, N.V.R.K. Swamy

S : (Ind)

177. Bibliography on New and Renewable Sources of Energy

A : Energy, Environment and Technology

O : —

M : —

Gen : January 1991

R : S.S.R. Prasad, N.V.R.K. Swamy

S : (Ind)

178. Environmental Management

A : Energy, Environment and Techlogy

O . —

M : —

Gen : —

R : B. Bowonder, S.S. Arvind

S : Ministry of Environment and Forests, Govt. of India, New Delhi.

179. Environmental Management at a Refinery : A Case Study of IOC Mathura Plant

A : Energy, Environment and Technology

O : —

M : —

Gen : August 1990

R : S.S. Arvind

S : (Ind)

180. Hazard Management at NFL Vijaipur : A Case Study

A : Energy Environment and Technology

O : —

M : —

Gen : January 1991

R : S.S. Arvind

S : (Ind)

181. Hazard Management at Gujarat Refinery : A Case Study

A : Energy, Environment and Technology

O : —

M : —

Gen : January 1991

R : S.S. Arvind

S : (Ind)

182. Environmental Management at Super Thermal Power Station : A Case Study

A : Energy, Environment and Technology

O : —

M : —

Gen : Feb. 1991

R : S.S. Arvind

S : (Ind)

183. Hazard Management at LPG Bottling Plant : A Case Study

A : Energy, Environment and Technology

O : —

M : —

Gen : March 1991

R : S.S. Arvind

S : (Ind)

184. Industrial Hazard Management: Oil Industry Safety Directorate

A : Energy, Environment and Technology

O : —

M : —

Gen : —

R : S.S. Arvind

S : Ministry of Petroleum and Chemicals, Govt. of India, New Delhi

185. Technology Assessment Practices. Technology Information Forecasting and Assessment Council (TIFAC)

A : Energy, Environment and Technology

O : —

M : —

Gem : —

R : B. Bowonder

S : Ministry of Science and Technology, Govt. of India, New Delhi

186. Technology Assessment Experience of Selected Countries

A : Energy, Environment and Technology

O : —

M : —

Gen : March 1991

R : B. Bowonder

S : (Ind)

187. Leadership and Management of Women Executive / Entrepreneurs International Council on Management of Population Programmes

A : Organisation Behaviour

O : —

M : —

Gen : —

R : Kokila Parthasarathy

S : (ICOMP), Kuala Lumpur, Malaysia

188. Corporate Social Accountability

A : Public Policy and Systems

O : —

M : —

Gen : —

R : G.R.S. Rao

S : Ford Foundation, New Delhi

189. Corporate Social Responsibility in India : A Status Report (Two Volumes)

A : Public Policy and Systems

O : —

M : —

Gen : August 1990

R : G. R. S. Rao, N. Sudhakar, Nita Prasad, N. Srinivas T.D.S. Kumar, T. Saraswathi

S : RIPA and ASCI

190. Evaluation of family welfare education in organised sector

A : Social serviees

O : —

M : —

Gen : —

R : G. Narayana

S ILO and Ministry of Health and Family Welfare, Govt. of India, New Delhi

191. Evaluation Report on Comprehensive Family Education Programme for the Organised sector

A : Social Services

O : —

M : —

Gen : May 1990

R : G. Narayana, Ch. V. Sitarama Rao, Swati Joshi, P. Madan Rao

S : Labour Dept., Govt. of Andhra Pradesh

192. Fertiliser Usage Efficiencies : A Micro level Study

A : Agriculture and Rural Development

O : —

M : —

Gen : May 1990.

R : S. Satish, H.S. Sai Hemasekharappa

S : (Ind)

193. Energy Management Practices in Manufacturing Industries

A : Energy, Environment and Technology.

O : —

M : —

Gen : August 1990

R : S.S.R. Prasad, Anup Bagla

S : (Ind)

194. Status report on Quality Circle Movement in India

A : General Management

O : —

M : —

Gen : April 1990

R : A. V. Srinivasan

S : (Ind)

195. Case Study on Metal Box

A : Marketing

O : —

M : —

Gen : February 1991

R : B. Kinnera Murthy

S : (Ind)

196. Materials Management Game

A : Operations Management

O : —

M : —

Gen : September 1990

R : P. V. Ganesan

S : (Ind)

197. Global Developments, National Economy and Indian Industry: Medium Term Strategic Scenarios

A : —

O : —

M : —

Gen : March 1991

R : Y.R.K. Reddy

S : (Ind)

198. Concept of Political will in the context of Evolving Suitable Performance Evaluation System for Public Enterprises : Some Explorations

A : Public Enterprises

O : —

M : —

Gen : June 1990

R : K. S. Sastry

S : (Ind)

199. Farmers' Participation in Irrigation Management

A : Agriculture and Rural Development

O : —

M : —

Gen : June 1991

R : K. S. Ramesh, M. V. R. Siva Mohan, C. Sitapathi Rao

S : Ford Foundation, New Delhi

200. Action Research Programme : On Farmer Managed Irrigation Systems in the Sri Ram Sagar Project (Part of Farmers' Participation in Irrigation Management Project)

A : —

O : —

M : —

Gen : ongoing

R : K. S. Ramesh, M. V. R. Siva Mohan, S. Turabul Hassan, C. Sitapathi Rao

S : (Ind)

201. Farmers' Participation in Management of Tank Irrigation Systems in Tamil Nadu : Case Study

A : Agriculture and Rural Development

O : —

M : —

Gen : June 1991

R : K. S. Ramesh, V.N. Chandramouli

S : (Ind)

202. Evaluation Study in the Catchment of River Valley Project of Pohru (Jammu & Kashmir)

A : Agriculture and Rural Development

O : —

M : —

Gen : May 1989 : June 1991

R : C. Sitapathi Rao, S. Turabul Hassan, T.V. Satyanarayana

S : Ministry of Agriculture, Govt. of India, New Delhi

203. Planning and Management of Development Projects at District Level

A : Agriculture and Rural Development

O : —

M : —

Gen Jan 1990 : Feb 1990

R : K.S. Ramesh, A. Rahul Kumar, N. Prem Kumar

S : Planning Commission, Govt. of India, New Delhi

204. Agriculture Technology Diffusion Policies in India

A : —

O : —

M : —

Gen : June 1990 : Dec. 1991

R : S. Satish, A. Rahul Kumar

S : ODI, UK

205. Nallavagu Watershed in Nellore Dist.

A : Agriculture and Rural Development

A : —

O : —

M : —

Gen : ongoing

R : MVK Siva Mohan, AA Firdausi, K S Ramesh, S. Satish

S : Dept of Agriculture Govt of Andhra Pradesh, Hyderabad

206. A Study of Landslides in Sikkim

A : Agriculture and Rural Development

O : —

M : —

Gen : July 1991 : Dec 1991

R : K S Ramesh, S Satish

S : Ministry of Agriculture, Govt. of India, New Delhi

207. Economics and Cost of Production of Clove, Nutmeg and Mace: A Study. Spices Board

A : Commercial crops

O : —

M : —

Gen : ongoing

R : L. Shridharan, M. Surendar Reddy, S. Lakshmipathi

S : Ministry of Commerce, Govt. of India

208. Joint Venture Potentials in South Asia : Multilateral Study

A : Industrial Economics

O : —

M : —

Gen : July 1990 : Sep. 1991

R : Arif A. Waqif, Anjana Chatterjee

S : Friedrich Ebert Stiftung, New Delhi

209. Steel Industry Sector in South Asia: Regional Study Committee on Studies for Co-operation in Development in South Asia

A : Industrial Economics

O : —

M : —

Gen : July 1991 : June 1992

R : Arif A. Waqif, Anjana Chatterjee

S : Marga Institute Colombo

210. Environmental Management

A : Energy, Environment and Technology

O : —

M : —

Gen : April 1990 : March 1995

R : B. Bowonder

S : Ministry of Environment and Forests, Govt. of India, New Delhi

211. Energy Management Case Studies. Petroleum Conservation Research Association, Oil Industry Development Board

A : Energy, Environment and Technology

O : —

M : —

Gen : April 1990 : March 1995

R : SSR Prasad

S : Ministry of Petroleum, Govt. of India, New Delhi

212. Evaluation Study of Solar Photovoltaic Systems

A : Energy, Environment and Technology

O : —

M : —

Gen : June 1989 : Aug 1991

R : S S R Prasad

S : Dept of Non Conventional Energy Sources, Ministry of Energy, Govt. of India, New Delhi

213. Information Technology Project Technology Information Forecasting and Assessment Council

A : Energy, Environment and Technology

O : —

M : —

Gen : June 1991 : June 1992

R : B. Bowonder

S : Ministry of Science and Technology, Govt. of India, New Delhi

214. Micro Electronics Project. Technology Information Forecasting and Assessment Council

A : Energy, Environment and Technology

O : —

M : —

Gen : June 1991 : June 1992

R : B. Bowonder

S : Ministry of Science and Technology, Govt. of India, New Delhi

215. Ecological Management

A : Energy, Environment and Technology

O : —

M : —

Gen : April 1991 : Dec 1992

R : B. Bowonder, S.S. Arvind, B. Venkat Rao

S : Friedrich Ebert Stiftung, New Delhi

216. Hazard Management : Oil Industry Safety Directorate

A : Energy, Environment and Technology

O : —

M : —

Gen : Sep 1990 : March 1993

R : B. Bowonder, S.S. Arvind

S : Ministry of Petroleum and Chemicals, Govt of India, New Delhi

217. Sustainable Development

A : Energy, Environment and Technology

O : —

M : —

Gen : April 1991 · Dec 1991

R : B Bowonder

S : Institute for Resource and Security Studies, Massachusetts, USA

218. Organisational Climate and its Impact on Various Aspects of Work Life in Public Sector Organisations

A : Organisation Behaviour

O : —

M : —

Gen : Dec 1983 : Sep 1990

R : Pritam Singh

S : Indian Council of Social Science Research, New Delhi

219. The value profile of IAS

A : Organisation Behaviour

O : —

M : —

Gen : Sep 1989 : Sep 1991

R : Pritam Singh, Asha Bhandarkar

S : Indian Council of Social Science Research, New Delhi

220. Labour 2000: Engineering Industry

A : Personnel Management and Industrial Relations

O : —

M : —

Gen : January 1991 : Oct 1991

R : Sunil Unny Guptan

S : Friedrich Ebert Foundation, New Delhi

221. Formal Schooling and Personal Efficacy in India and USA : Women in the Market - Who Benefits?

A : Social Services

O : —

M : —

Gen : July 1988 : ongoing

R : Daphne M. Rebello

S : Indian Council of Social Science Research, New Delhi

222. Baseline Surveys. Ministry of Health and Family Welfare, Dept. of Family Welfare

A : Social Services

O : —

M : —

Gen : April 1990 : Nov. 1990

R : G. Narayana

S : Govt. of india, New Delhi

223. Role and functions of Directors of Public Enterprise Boards

A : Public Enterprise

O : —

M : —

Gen : ongoing

R : S. Padam

S : (Ind)

224. Public Enterprises : Promise and Performance

A : Public Enterprise

O : —

M : —

Gen : ongoing

R : B. Kinnera Murthy

S : (Ind)

225. Case Studies of Turn - Around Managemant : A Profile

A : Public Enterprise

O : —

M : —

Gen : ongoing

R : Mathew J. Manimala, Pritam Singh, Mohinder N. Kaura, A. A. Gopalakrishnan

S : ASC, Hyderabad

226. A Status Report on Corporate Database for Public Enterprises

A : Public Enterprise

O : —

M : —

Gen : ongoing

R : A. V. Srinivasan, B. K. Malleswari, Mubeen Rafat

S : ASC, Hyderabad

227. Strategic Management of Public Enterprise for a Global Economy

A : Public Enterprise

O : —

M : —

Gen : ongoing

R : S. R. Ganesh

S : ASC, Hyderabad

228. Trends in Counter Trade

A : Public Enterprise

O : —

M : —

Gen : ongoing

R : K.R. Rao

S : ASC, Hyderabad

229. Implementation of Information Systems : A Preliminary Study of Public Enterprises

A : International Economics

O : —

M : —

Gen : ongoing

R : Mukund Mohan

S ASC, Hyderabad

230. Strategic Alternatives of Counter-Trade Promotion

A : International Trade

O : —

M : —

Gen : ongoing

R : K.R. Rao

S : ASC, Hyderabad

231. A quarter century of Industrial Relations: The case of a Process

A : Industry

O : —

M : —

Gen : ongoing

R : E.A. Ramaswamy, B. Muralidharan

S : ASC, Hyderabad

232. Technology Management Practices in Indian Companies (Phase II)

A : Technology

O : —

M : —

Gen : ongoing

R : B. Bowonder, Arif A. Waqif

S : ASC, Hyderabad

233. Human Resource Management: Policies in the Health and Family Welfare

A : Health

O : —

M : —

Gen : ongoing

R : U. Pandey

S : (Ind)

234. Project Management for IAS Officers for Level 1 and 2

A : —

O : —

M : —

Gen : ongoing

R : B. S. Chetty

S : (Ind)

235. Working Capital Management : Indian Practices

A : —

O : —

M : —

Gen : ongoing

R : V. E. Ramamoorthy

S : (Ind)

236. Emerging Financial Services Industry

A : Monetary Economics

O : —

M : —

Gen : ongoing

R : Mubeen Rafat

S : (Ind)

237. First Programme on Development Banking

A : Banking

O : —

M : —

Gen : ongoing

R : A. A. Gopalakrishnan

S : (Ind)

238. Vendor Development Policies and Practices in Manufacturing Organisations : An Exploratory Study.

A : Industry

O : —

M : —

Gen : ongoing

R : A. S. Ramasastry

S : (Ind)

239. Technology, Trade and policies in Indian Agriculture

A : Agriculture

O : —

M : —

Gen : ongoing

R : S. Satish, N. Premkumar

S : (Ind)

240 Current Management Accounting Practices in Manufacturing Industries

A : Industry

O : —

M : —

Gen : ongoing

R : S. Mallikharjuna Rao

S : (Ind)

241. A Study of Developments of International Financial Markets and Instruments

A : Monetary Economics

O : —

M : —

Gen : onging

R : Mohinder N. Kaura

S : (Ind)

242. The Influence of Traditional Practices on Communication in Indian Organisations

A : Communication

O : —

M : —

Gen : ongoing

R : Sunil Unny Guptan

S : (Ind)

243. Updating Manuscripts on Management Training and Development: An Evaluation and Graduate Engineer Trainees

A : Management

O : —

M : —

Gen : ongoing

R : B. R. Virmani

S : (Ind)

244. Case Studies of High Achieving Women

A : Women studies

O : —

M : —

Gen : ongoing

R : Kokila Parthasarathy

S : (Ind)

245. International Differentials and Trends in Industrial Conflict : A Study in the Context of Global Competitiveness and Economy Development

A : Industrial Relations

O : —

M : —

Gen : ongoing

R : Y.R.K. Reddy

S : (Ind)

246. A study of Exchange Risk Management in Direct Financing

A : Management

O : —

M : —

Gen : ongoing

R : Mohinder N. Kaura

S : (Ind)

247. Strategies and Policies of Successful Entrepreneurs : A Research Proposal

A : Industrial Economics

O —

M : —

Gen : ongoing

R : Mathew J. Manimala

S : (Ind)

248. Study on Computer Applications in Sales Management

A : Sales Magagement

O : —

M : —

Gen · ongoing

R : B. K. Malleswari, K.R. Rao

S : (Ind)

Institute for Development and Planning Studies, Visakapatnam

249. Marketing of paddy and producer's prices : A case study of west Godavari District

A : Agriculture Economics

O : To examine the producers'price for paddy and the variables affecting, examine the variations and prices in terms of size class and holdings

M : Sample Survey Method
M. Phil: June 1990 : May 1991

R : P. Sanjeeva Rao

S : G. Parthasarathi

250. Fish and Paddy farms in Koeeru lake area : An Economic Analysis of costs, returns and employment

A : Agriculture Economics

O : To analysis the implications of shift from paddy to pisciculture, the impact of the shift on farmers income and examine the impact of shift on rural employment

M : Sample survey methodology
M. Phil: June 1990 : May 1991

R : Ramachandra Raju

S : G· Pardhasaradhi

251. Inadequate Drainage System and Crop Loss : A Case Study of Neredumilli village under kaza drain, West Godavari Dist

A . Agriculture Economics

O: To evaluate the crop yields and incomes of households within the area of drainage system, examine the impact of drainage works and the cost of cultivation, input use and cropping pattern and identify the existing drainage problems in the area and suggest necessary measures in short-run as well as long-run.

M : Sample Survey Methodology
M.Phil : June 1990: May 1991

R : B. V. Narasimha Raju

S : G. Pardhasaradhi

252. Single window system : Emerging trends - A case study of West Godavari Dist.

A : Cooperation

O : To critically examine the factors that lead to the establishment of single window rural credit - delivery system in AP, assess the performance of single window societies in west Godavari district and examine the differences in the utilisation of services of single window society by different villagers and size class of farmers.

M : Sample survey
M.Phil: June 1990 : May 1991

R : D. Ramachandra Raju

S : K. V. Ramana

253. Lead Bank performance appraisal in West Godavari Dist

A : Development Banking

O : To examine the performance of the lead bank (Andhra Bank) in West Godavari Dist. with particular reference to branch expansion, deposit mobilisation, credit deployment and recovery of loans from 1982 to 1989, assess the performance in comparison of lead bank with other commercial banks in the districts in the implementation of annual action plans from 1986 to 1989 and suggest recommendations for improvement and performance

M : Case study method
M Phil : June 1990 : May 1991

R : M V. Rajyalakshmi

S : A. V. Ranghanadhachari

254. Commercial Banks credit to weaker sections : A case study of four villages in Pedavegi mandal in West Godavari Dist

A : Development Banking

O : To examine the role of institutional credit and the impact of banking finance, economic programmes and the levels of living of weaker sections; evaluate the economic activities financed by commercial banks and IRDP or PASMA and their impact on income generation and poverty alleviation and analyse the recovery performance of loans given under these schemes

M : Sample survey method
M.Phil : June 1990: May 1991

R : S. V. N. Malaya Devi

S : K. V. Ramana

255. Education and Productivity in Agriculture - A case study of Ramavaram Village in east Godavari Dist

A ; Economics of Education

O : To find out the impact of education on economic development in general and agricultural development in particular, examine the impact of education on farmers income and agricultural productivity and examine the differences in the impact of education on farmers training programmes, and farmers experience on productivity by size-wise of operational holdings

M : —
M.Phil : June 1990 : May 1991

R : T. Venugopala Rao

S : B. Sarveswara Rao

256. Role of Industrial estate in promoting small industries - A case study of industrial estate in Visakhapatnam

A : Industrial Economics

O : To examine the role of small scale Industries in India's economic development and particularly in Visakhapatnam City, the nature and role of industrial estates in India and evaluate their performance in India, State and Vizag. City and analyse structure and working of industrial units in the industrial estates

M : Sample survey m thod

M.Phil : June 1990 : May 1991

R : B. Subbalakshmi

S : K. V. Ramana

257. Public Distribution system, trends, utilisation and benefits with special reference to Andhra Pradesh

A : Public Distribution System

O : To review Public distribution system as seen from NSS 42nd Round (1986-87) for All India and Andhra Pradesh, review of Rs. 2 a kg rice scheme in Andhra Pradesh and and estimation of benefits from public distribution system through a case study of urban slum in Rajamundry area

M : Case study method

M. Phil : June 1990 : May 1991

R : K. Baby Sarojini

S : G. Pardhasaradhi

Gulbarga University

258 An economic analysis of finances and functions of zilla parishad, gram panchayats, panchayat samitis and local governments in Gulbarga District of Karnataka State

A : Local finance

O : To examine the Historical background of local self government in India in general and in Karnataka in particular, the sources of revenues of the various local bodies in Gulbarga Dist. and the expenditure pattern

M : Historical, analytical methods, primary and secondary sources, respondents selected based on, 'convenience sampling', the simple and multiple regressions model used

Ph. D. : July : ongoing

R : H. Vasudev Sedam

S : M. Basheer Ahmed Khan

259. A study of female agricultural labourers in Gulbarga Dist

A : Agriculture labour

O : —

M : —

M. Phil : Jan : 91 : Dec 91

R : B. Deshmanya Jagrati

S : B. N. Nimbur

260. Economic Philosophy of Sharanas of 12th Century AD

A : Economic History

O : —

M : —

M. Phil : Jan 91 : Dec 91

R : Tukkanna Gurubasappa

S : M.S. Kallur

Karnatak University

261. Rural Small and Micro Enterprise plan for districts of Dharwar, Gulbarga and Bijapur-Karnataka

A : Area Development by Rural Micro Enterprise

O : To help develop a profile of ARTISANS by collecting data on socio, economic and local natural resources, study and propose rural small and micro enterprises in three districts to be established under Netherlands assistance and study gender impact assessment.

M : Data from villages on local resources in terms of raw mateials, manpower (skilled), discuss with target group to evolve feasible micro enterprises and develop an overall district plan for bilateral assistance (from Netherland Govt. and Govt of India)

Gen : Aug 1990 : July 1991)

R : M.S. Subhas

S : (Ind)

262. Marketing of Chilli & Wool products

A : Marketing of chilli & wool products

O : To study the existing market and mechanisms in India for chilli and wool products and evolve marketing strategy for marketing these products

M : Survey of markets in Bombay, Bangalore and South for chilli products and survey of rural markets in SIRSI, Ranetennur for wool products

Gen : June 1991 : Jan 1992

R : M.S. Subhas

S : (Ind)

263. Independent Evaluation of Hospital (Swiss EMMAUS)

A : Evaluation of Management

O : To evaluate the management of Hubli Hospital in terms of project management

M : Indepth analysis of the Hospital Management decisions

Gen : Dec 1991 : Jan 1992

R : M.S. Subhas

S : (Ind)

Institute for Social and Economic Change, Bangalore

264. Decentralised Planning : The Karnataka Experience

A : Planning

O : To evaluate the decentralised planning process in the light of the normative model of decentralised planning

M : Case study of Bangalore Rural Zilla Parishad and eight purposively selected mandal panchayats

Gen : July 1989 : July 1991

R : Abdul Aziz

S : (Ind)

265. Inter-state migration and linguistic reorganisation of States in India

A : Linguistic Geography

O : To examine whether migration across linguistic boundaries has slowed down in the wake of linguistic reorganisation of southern states in 1956, whether the population in each of the southern states has become linguistically homogenous overtime and how linguistic minorities trapped within the reorganised states respond to the changes

M : Trend analysis of census data on inter-state migration, mother tongue, bilingualism etc. from 1961 to 1981

Gen : July 1990 : Sep 1991

R : M. Johnson Samuel

S : (Ind)

Cochin University of Science and Technology

266. A study of the linkages of electrical machinery industry in Kerala

A : Industrial Economics

O : To study the structure of electrical machinery industry, understand linkages both forward and backward and the basic factors responsible for the establishment of these industries, analyse location theory, evidential policy etc.

M Secondary sources

Ph. D : Jan 1987 : March 1992

R : K. Usha Kumari

S : M.K. Sukumaran Nair

267. Efficiency in Central Public Sector enterprices in Kerala

A : Economics

O : Analyse trends in the capacity utilisation, evaluate the profitability trends, productivity performance and causes of underutilisation of capacity

M : Productivity Analysis (both partial and total factor productivity), capacity utilisation analysis, profitability

Ph. D : June 1987 : ongoing

R : M. T. Antony

S : Jose T. Payyappily

268. Timelag and cost overrun of public sector undertakings in Kerala with special reference to the Hydro electric project

A : Industrial Economics

O To measure the extent of time lag and cost overrun and its relationship and analyse its impact on the planning process

M : —

Ph. D : March : 1990 March 1993

R : Baby Thomas

S : D. Rajasenan

269. India's Engineering Exports : A Case study of some selected items

A : Industry

O : To study role played by engineering exports in India's overall exports, analyse various incentives and export promotion measures provided by Government and the determinents of the exports of the selected engineering goods

M. : Library sources, published information on engineering exports compiled from libraries of commercial and educational institutions.

2· Field investigation, contacts and discussions with officials of EEPC, Exim bank etc.

Ph. D : 1991 : ongoing

R : P. Arunachalam

S : D. Rajasenan

270. A study of Agricultural & Rural development bank in Kerala

A : Banking and finance

O : To study the financial performance of the Agricultural Development Banks, analyse the factors influencing the profitability with special references to overdues and study impact of lending pattern on the cultivation pattern of farmers

M : Sample study based on primary and secondary data

Ph. D : July 1991 : ongoing

R : Joy Joseph

S : Jose T. Payyapilly

271. Inter-state variations in productivity trends and technological change in Indian Industry

A : Technology

O : To study state wise variations in the performance industry in India in terms of productivity and technology and the major factors that influenced the stagnation of industry from state to state

M : —

R : S. Muraleedharan

S : M. K. Sukumaran Nair

272. Recent trends in commercial banking development in Kerala

A : Banking

O : To analyse the growth pattern of banking at the state level and compare it with that of the all India patterns, the inter-district comparison of commercial banking development in Kerala and relate the changes in the banking industry to that of the changing economic scenario of the state

M : Secondary data published by various agencies, RBI publications, simple statistical technique like ratios, percentages, coefficient of variation etc. used

M. Phil : Nov 1989 : Dec 1990

R : Biju Mathew

S : K.C. Sankaranarayanan

Centre for Development Studies, Trivandram

273. Domestic Technology generating efforts

A : Industrial Economic

O : To measure the rate and nature of domestic technology generating efforts in Indian industries, analyse the micro and macro variables which affects such efforts, and assess the effects of such efforts on an Industry firm's capacity to export:

M : Case study method-case of nearly eleven industries drawn from basic, capital intermediate and consumer goods industries

Gen : Dec 1991 : Jan 1992

R : Sunil Mani

S : (Ind)

274. Education and Society

A : Economics of Education

O : To analyse the relationship between education and income in a society, understand the factors that determine socio-economic mobility of various social groups and how to expedite the process among the scheduled castes.

M : Stepwise multiple regression models, Recursive system of equations

Gen . June 1991 : ongoing

R : C. Gasper

S : (Ind)

275. Impact of withdrawal of fertiliser subsidy on production, prices and initial competitiveness

A : Policy

O : To quantify the crop and region specific impact of reduction in fertiliser subsidy on input use and output, prices and incomes and relative competitiveness of Indian agriculture

M : Neo-classical production theory

Gen : Jan 1992 : Nov 1992

R : J. V. Meenakshi

S : (Ind)

276. Rural non-farm employment in Kerala

A : Industrial Economics and Labour

O : To gain indepth understanding of the determinants of the level, pattern and growth of NFE; the extent to which rural NFE has mitigated incidence of rural poverty and unemployment, indicate possiblilities and limitations of promoting rural NFE and make policy recommendations to strengthen NFE in rural areas.

M : Primarily field survey and published data

Gen : —

R : Mridul Eapen

S : (Ind)

Indian Institute for Regional Development studies, Kottayam

277. Economic Utilisation of irrigation water - A Case study of Kuttiyadi Irrigation Project

A : Agricultural Economics

O : To find the method of irrigation and water use by the farmers, the water losses and assess irrigation efficiency and its impact

M : Questionaire method

Gen : Dec 1990 : Dec 1991

R : Kunjumon George, Sabu Thomas

S : P. T. Joseph

278. Concurrent Evaluation of Jawahar Rozgar Yojana

A : Rural Development

O : To make evaluation study on Government Policy to streamline and further improve the implementation of Jawahar Rozgar Yojana Programme

M : Questionnaire method

Gen : Jan 1992 : July 1992

R : Sabu Thomas, M. V. George

S : Molly Mathew

Bharathidhasan University

279. A study on Development of Entrepreneurship through Industrial estates

A : Industrial Economics

O : To examine the socio-economic background of entrepreneurs in industrial estates and compare it with outside, assess the relative performance of industrial units in estates with that of outside industrial estates, find out the relationship between socio-economic variables and the entrepreneurial performance and inentify the problems encountered by the entrepreneurs and suggest policy measures

M : Four industrial estates in Tiruchy Dist chosen. Of 208 units, 184 were established by private entrepreneurs and selected by proportionate sampling method. Within 2 kms radius of each of the above industrial estimates, 35 units selected

Ph. D : April 1987 : Nov 1991

R : N. Manimekalai

S : C. Thangamuthu

280. Economic Aspects of Sericulture in Dharmapuri District of Tamilnadu

A : Industrial Economics

O : To analyse the cost, returns and employment aspects of various stages of sericulture, the relative performance of reeling units and its various problems and study the implications of the existing marketing conditions, especially outflow of unprocessed cocoon and assess the sericulture potentialities in the state and suggest measures to sustain its development

M : Field survey for collecting primary data from sericulture from households in two selected villages of Hosur and Dharmapuri covering 108 farming households. In reeling units 39 printer units engaged in production during 1989-90 and seven cooperative units chosen for survey.

Ph.D. : 25 April 87 : Dec. 1991

R : R. Venkataravi

S : C. Thangamuthu

281. Industrial promotional agencies and entrepreneurship development in two backward districts in Tamil Nadu

A : Entrepreneurship Development

O : To examine the efforts of Industrial Promotional Agencies (IPAs), study the interaction between entrepreneurs and IPAs & evaluate the entrepreneurial performance of the new entrepreneurs assisted by the IPAs.

M : Randomly selected from Dharmapuri (74) Pudukottai (59) using primary data. The growth of the units and the determinants of growth rate analysed using linear multiple regression model and secondary data collected from the IPAs

Gen : ongoing

R : C. Thangamuthu

S : S. Iyyampillai

282. Status of social sciences in Universities and Colleges in Tamil Nadu

A : Social Sciences

O : To study the status of social sciences in terms of functions of the Department of various social sciences and the infrastructural facilities available in the colleges and departments

M : Survey of all the departments of (Economics, History, Commerce, Sociology, Politics, Philosophy etc.) of social sciences in all the Colleges and Universities in Tamilnadu

Gen. : Dec. 1991 : April 1992

R : Dept. of Economics

S : (Ind)

Gandhigram Rural University

283. Model plan for the Development of Health in Ponnai and Surulode villages of Kanyakumari district

A : Micro level Planning

O : To study the socio-economic status of the rural people, the awareness of the Health Programmes, identify the prevalent diseases, if any, study the nature of rural health facilities, and suggest suitable remedial measures to improve the health conditions

M : Survey Method

M.Phil : —

R : G. Appukuttan

S : S. Kesavan

284. Plan for containing migration in Thondamuthur, Vedapatti, Verakoralam of Coimbatore district

A : Micro leval planniug

O : To study the socio-economic conditions of Migrants, find out the nature and causes o migration, and suggest suitable measures to contain migration

M : Survey method

M. Phil : —

R : P. Nagappan

S : S. Kesavan

285. A study on the Unmarried Rural Young Women's Knowledge and Attitude Towards Family Planning.

A : —

O : To understand the knowledge and attitude of unmarried rural young women towards Family Planning

M : Survey Method

Gen : May 1991 : ongoing

R : S. Kesavan & Research team

S (Ind)

286. A Study on the Opinion of Rural Women about their Drinking husbands and other male family members

A : —

O : To find out the rural women's opinion about their drinking husbands and other male family members

M : Survey Method

Gen : May 1991 : ongoing

R : S. Kesavan and research team

S (Ind)

287. A Study on the Opinion of Landless Labour : Migration

A : —

O : To understand the pattern of unemployment prevalent among the rural labour and their migration

M : Survey Method

Gen : May 1991 : ongoing

R : S. Kesavan and research team

S : (Ind)

288. A Comparative study of V. Pappanampatti Scheduled Caste and Backward Class families on certain major issues of life

A : —

O : To find out how the Caste based Social Stratification in the Village affects the attitudes and opinions of the people

M : Case study

Gen : June 1991 : ongoing

R : S. Kesavan

S : (Ind)

289. A study on Socio-economic profile and aspirational aspects of 10 families of Puthur

A : —

O : To understand the socio-economic and aspirational aspects of Puthur Village

M : Case study

Gen : Nov 91 : ongoing

R : S. Kesavan and research team

S (Ind)

290. A study of the Brackish Water problem of Rengappanur

A : —

O : To study the problem of Rengappanur (Brackish water)

M : Gen : Nov 1991 ; ongoing

R : S. Kesavan and research team

S : (Ind)

291. Siluvathur - village study

A : —

O : To study the problems and aspirational aspects of Siluvathur

M : Survey Method

Gen : Nov 1991 : ongoing

R : S. Kesavan and research team

S : (Ind)

292. Unmarried Rural Young Women's knowledge and attitude towards family planning (in Athoor, Dindigul and Reddiar chatram blocks)

A : —

O : To understand the knowledge and attitude of unmarried rural young women towards family planning

M : Survey Method

Gen : Dec 1991 : ongoing

R : S. Kesavan and research team

S : (Ind)

293. A study on "Ex-servicemen as Catalysts of N. Panjampatti

A : —

O : To study the socio-economic profile of the Ex-servicemen and the socio-economic aspects in which they could extend their services for the uplift of the village

M : Survey methods

Gen : Dec 1991 : ongoing

R : S. Kesavan and research team

S : (Ind)

294. A study on the attitude of village school teachers in participating in the village Development programmes

A : —

O . To know the Socio-economic profile of the Village School Teachers & know the attitude of Village School teachers in involving themselves in the village development programmes

M : Case Study

Gen : Jan 1992 : ongoing

R : S. Kesavan and research team

S : (Ind)

295. A Study on the Perception of teacher students and parents about the middle school at K. Kurumbapatti

A : —

O : To understand the socio-economic profile of the village school teachers and the perception of teachers, students and parents about the middle school at K. Kurumbapatti

M : Case study

Gen : Feb 1992 : ongoing

R : S. Kesavan and research team

S : (Ind)

296. A study on the perception of teachers and students of their Government Hr Secondary School at Athoor

A : —

O : To study the Socio-economic profile of the village school teachers and the perception of teachers, students and parents on the problems and needs of the school

M : Case study

Gen : Feb 1992 : ongoing

R : S. Kesavan and research team

S : (Ind)

297. A Study on the functioning of Prohibition Enforcement Committee at Alamarathupatti, Anna Dist.

A : —

O : To study the socio-economic profile of the members of Prohibition Enforcement Committee at Alamarathupatti and the perception of the committee members on the functioning of Prohibition Enforcement Committee at Alamarathupatti

M : Case Study

Gen : March 1992 : ongoing

R : S. Kesavan and research team

S : (Ind)

298. A study on the perception of villages on ecological aspects of Narasingapuram Anna Dist

A : —

O : To study the socio-economic profile of the villagers of Narasingapuram and the ecological perception of the villagers of Narasingapuram

M : Survey Method

Gen : March 1992 : ongoing

R : D. Kesavan and research team

S (Ind)

Madurai Kamaraj University

299. An Empirical Analysis of State Tax Structure of Tamilnadu

A : Taxation

O : To analyse the growth pattern of state tax revenue of Tamil Nadu, measure the responsiveness of the tax system and identify the factors and find out the tax-effort index for Tamilnadu

M : Semilog fit for growth rates, double log fit for coefficient of buoyancy, Divisia index for coefficient of elasticity and multiple regression for tax effort index

Ph. D : July 83 : July 93

R : K. Deivamani

S : R. Sankararamalingam

300. The Role of State Bank of India financing in Rural Development in Madurai Dist.

A : Rural Development

O : To assess the extent to which the bank credit has helped in developing the rural poor by generating income and employment, analyse factors influencing repayment behaviour, causes for non-repayment, and examine the problems and constraints with a view to visualise as to what more requires to be done to provide sound development banking facilities for rural development.

M : A multistage stratified random sampling of 448 beneficiaries. Application of linear additive model, using Bartletts test, Gini concentration ratio and discriminant functions to discriminate between the prompt repayers and defaulters

Ph. D : 1986 : 1990

R : N. Saraswathy

S : K. Ramachandran

301. A study on employment, income and levels of living of landless agricultural labourers in Thirumangalam Taluk, Madurai Dist.

A : Labour economics

O : To estimate the average household and percapita employment, income and consumption of agricultural labourers and estimate the extent of poverty

M : Multistage stratified proportional random sampling of 250 households. Application of multiple regression, Engel functions and poverty measures such as Head Count Ratio, Income Crop Ratio and Sen Index of poverty

Ph. D : 1987 : 1990

R : Chellam Subramanian

S : R. Sankararamalingam

302. IRDP and poverty alleviation with special reference to Periyar district in Tamil Nadu

A : Rural Development

O : To study the role of IRDP in alleviating rural poverty in India in general and Tamil Nadu in particular, examine the planning & implementation of IRDP with special reference to the identification of beneficiaries and scheme channelisation of credit and spatial linkages and their functionalities and the impact on income generation, employment, consumption, asset and skill formation

M : The primary and secondary data used. Primary data from the IRDP respondents of Periar Dist. and secondary data from govt. records, various research Institutions, University libraries, block, development offices of periyar district, rural development offices at Madras etc. Tools like, multiple regression sex priority index, Engel's curve applied

Ph. D : January 1989 : 1992

R : S. K. Thangamani

S : T. Valathi Varaguna Singh

303. Economics of Industrial Pollution control in Tamil Nadu with special reference to Sugar Industry

A : Environmental Economics

O : To study the impact of pollution control, costs on the micro economy of the sugar industry, evaluate the magnitude of pollution control costs in terms of profit output and investments and suggest suitable policy measures to control the effluents in the form of pollution tax and other changes

M : Proposed to cover almost all the 25 sugar factories in the state based on case study of 3 factories one each from public, cooperative and private sector.

Ph. D : March 1989 : March 1993

R : S Nagaraja Murugan

S : G. Velan

304. Economics of migration in Madurai city Tamilnadu

A : Population

O : To analyse the causes of migration & the socio-economic impact of migration on the migrants family

M Primary data from the sample respondents, sample size 320, consist of slum and other households on the basis of multi-stage random sampling

Ph. D : Aug 1989 : Aug 1993

R : S.A.S. Somthapparaj

S : R. Sankararamalingam

305. A Study of Socio-Economic Conditions of cleaning (sanitary) Workers of Madurai Corporation

A : Labour Economics

O : To indentify the social background of the sanitary workers in Madurai corporation, estimate the average family income and examine the expenditure pattern and study the savings behaviour and the independedness of the workers

M : Random sampling method

Ph. D : Jan 1990 : Jan 1995

R : R. Duraipandi

S : G. Velan

306. India's Trade deficit and growth of foreign debt-since 1970

A : International Economics

O : To study the India's Exports trends since 1970 and their relationship and whether there is good potential for our exports

M : Secondary data covers period of 20 years from 1970 to 1990 on export and import trends, and the trade deficit & the debt position. Regression models also used

Ph. D : July 1991 : July 1993

R : S. Karthikeyan

S : M.S. Subramanian

307. An Economic Study of Poverty Migration & unemployment in select villages in Madurai District

A : Rural Economics

O : To identify the causes for poverty unemployment and migration of rural population

& analyse the inter-relationship among the poverty, employment and migration of the people

M : Primary information through a field survey among the migrants before and after migration, caloric norms for identifying poverty and multiple regression analysis to estimating the interrelation ship among poverty migration and unemployment

Ph. D : Oct 1991 : ongoing

R : C.A. Malarvizhi

S : M. Mohamed Mustafa

308. A study of poverty among the agricultural labour households in Thanjavur Dist Tamilnadu

A : Agricultural Economics

O : To study the dimension of inter-district variation in the incidence of poverty among the agricultural labour household estimate the extent of poverty among sample households lying below and above the poverty line, measure the average mandays of employment in a year for male and agricultural labour households in Thanjavur Dt. and estimate the gap between the actual and potential earnings and suggest measures to reduce the gap

M : Thanjavur Dist. in Tamilnadu selected based on primary or secondary data, Primary data from about 150 agricultural labourers by random sampling method administering pre-tested questionnaire. The secondary data from the Block Development offices in Thanjavur Dt. The sample survey will be distinguished by the reference in agricultural labourers, self-employed in non-agricultural occupation of rural household.

Ph. D : Feb 92 : Feb 1994

R : T. Anbalagan

S : R. Haridoss

309. Environmental Pollution Problems in Tamil Nadu

A : Environmental Economics

O : To discuss the sources and effects of air, water, solid waste, and noise pollution in general, explain the causes and effects of various types of environmental pollution in Tamil Nadu and suggest recommendations to control them

M : Descriptive with theoretical approach of the sources and effects of pollution.

Gen : Dec 1988 : Dec 1990

R : N. Manonmoney

S (Ind)

310. Income, Saving and investment of household in Madurai Dist.

A : Household Economics

O : To study the level of income, saving and investment of the rural and urban households in Madurai Dist, examine the investment pattern, analyse how far they are used for productive purposes, and study the distribution of income of the rural and urban households

M : Balance sheet method to estimate savings, Lorenz curves and Gini-ratios to examine income distribution among rural and urban households and analysis of financial investment

Gen : June 1981 : Dec 1990

R : N. Durairaj & S. V. Hariharan

S : (Ind)

311. A study of enterpreneurship in Madurai Dist

A : Industrial Economics

O : To identify the entrepreneurial base, envisage the problems associated with each type of industry vide : chemical engineering, agro based and identify entrepreneurial variables

M : Principal component analysis, risk analysis and multiple correlation

Gen : July 89 : July 90

R : V. Dhulasi Birundha & M. V. Satchidanandam

S : ICSSR

University of Madras

Agro Economic Researce Centre

312. Impact of Subsidies on Agricultural Development (Tamilnadu)

A : Agricultural Economics

O : To quantify level and spread of different types of subsidies in the state and districts, work out their macro effect on agricultural development, assess the quantum of subsidies availed, the extent of utilisation of subsidised inputs and their impact on different kinds of farmers with respect to asset formation, income generation and employment creation etc, study the role of subsidies on input use, structure, crop pattern and production pattern on different categories of farmers, the usefulness of subsidies on the adoption of modern technology for agricultural production and the administration of the disbursement of subsidies and suggest measures for improvement

M : Districts listed on the basis of different kinds of subsidies for a latest year for which data on all aspects are available, the extent of use of subsidies on different items in all the districts of the state worked out and the relative position of the districts in terms of their performance analysed. From these districts, one district which is the most important with reference to subsidy on a particular item selected and a minimum four important items receiving subsidy studied.

Gen : 1991 : 1992

R : S. Kesavan Nair

S : C. Arputharaj

313. Study of role of non-governmental agencies in agricultural development (Tamil Nadu)

A : Agricultural Economics

O : To study the nature, objectives and functioning of the organisations and source of finance, study the agricultural and allied activities and type of help given by the agencies and the basis for the assistance given to the farmers, impact and response from the farmers in respect of production, productivity, capital assets, infrastructure, adoption of technology and employment, study the coordination of non government organisations and government departments, examine the role of non-government agencies in bringing social action, modalities or social involvement in the process along with its long run substenance, study the problems faced by the non-government organisations in implementing the agricultural programmes and suggest guidelines for better involvement of non-governmental organisation in agricultural development.

M : Two non-government organisation (one each from two most agricultural backward areas) which have been considered successful in agricultural performance, irrespective of their source of finance selected. The role played by the non-government organisation will be evaluated through a sample study of about 50 beneficiaries and an equal no. of non-beneciaries

Gen : 1991 : 1992

R : A.J. Rupchand

S : C. Arputharaj

314: Study of emerging problems of agricultural marketing with special focus on processing and input supplies (Tamil Nadu)

A : Agricultural Economics

O : To study the existing marketing structure and its efficiency covering both private and regulated markets, identify the emerging problems of marketing both for old and new crops with added focus on processing and input supply, make projections of production, marketed surplus, demand, availability of market centres for all crops in general and for selected crops in particular, study the present arrangements available with regard to processing of selected commodities and their problems and examine the present processing facilities and their adequacy to meet the future needs.

M : Major and emerging crops identified and one district each representing a major crop chosen for study.

Gen : 1991 1992

R : Charles Valentine

S : C. Arputharaj

315. Decentralised planning in agricultural rural development - infrastructure development enumeration at district level (Tamil Nadu)

A : Agricultural Economics

O : To review the organisational structure and methodology adopted for decentralised planning in the district, prepare the profile of natural and human resources with focus on delineating agro-climatic regions in the district, highlight various schemes launched in the district, their implementation and problems, indentify the constraints in agricultural and rural development and suggest the strategy for the future development

M : A district selected which is either representative of the state's agriculture or one which is agriculturally backward

Gen : 1991 : 1992

R : C. Arputharaj

S : (Ind)

316. Economic viability of small and marginal farmers, its potentialities for increasing income and employment of marginal farmers (Tamil Nadu)

A : Agricultural Economics

O : To examine the characteristics of small and marginal farms with particular reference to the ownership, utilisation and productivity of resources including land, irrigation, labour, live stock, implements and machinery, study the costs and returns on agriculture and allied sector of the selected farmers, identify the farmers who are economically viable/non-viable under different agro-climatic conditions and the alternative strategies/programmes that could be used for imparting viability to the non-viable farms

M : The study covers two or three important agro-climatic regions in the state. Households belonging to medium, small and marginal farmers enumerated in 5 villages in each region. Ten households in each village selected randomly with probability proportional to the numbers in the three groups. In addition five most important activities allied to agriculture will be identified in each region for preparing case studies of the costs and returns and employment potential of these activities

Gen : 1991 : 1992

R : V. Chockalingam

S : C. Arputharaj

317. Price increase and its effect on fertilizer consumption in Tamil Nadu

A : Agricultural Economics

O : To study the effect of price increase of fertilizers on their consumption, the changes in cropping pattern, if any, due to the price hike and the dual pricing system of fertilizers

M : The study covers two agro climatic zones of the state. A three stage stratified random sampling adopted with taluk as the primary sampling unit; a cluster of villages as the secondary unit and an operational holding as the third unit. About 300 sample households contacted covering major fertilizer consuming crops.

Gen : 1991 : 1992

R : S. Kesavan Nair

S : C. Arputharaj

Madras Institute of Development Studies

318. The Economic impact and social implications of the public distribution system in Tamilnadu

A : Development Economics

O : To examine the trends in the procurement operations of the civil supplies corporation, study the interlinkages between the controlled market and the free open market in terms of purchase, distribution, price, institutional arrangements, etc. and examine alternative strategies for increasing the public distribution of essential commodities in Tamil Nadu

M : Analysis of secondary and primary data through statistical and survey methods

Ph. D : Feb 1984 : ongoing

R . C. Annadurai

S : C. T. Kurien

319. The Millet Economy of Tamil Nadu

A : Agricultural Economics

O : To assess the changes in area, yield and production of major millets in the past three decades, understand the purposes of growing millets (home consumptian, market, livestock-kind, wage payment etc), analyse the price and demand aspects of millets

M · Time series, secondary data and cross section primary data from field survey

Ph.D : Feb 1984 ; ongoing

R : M. S. Edwin Innocent

S : R. N. Poduval

320. Groundnut Economy of Tamil Nadu

A : Agricultural Economics

O : To indentify and analyse the nature and sources of patterns in growth and instability of groundnut area, yield and production within Tamil Nadu-1960-61 to 1989-81; indentify pattern of growth and instability in groundnut area, yield and production across Tamil Nadu and study the factors underlying the different paterns of growth and instability

M : Identified 8 important groundnut growing districts in Tamil Nadu; study growth and instability by year, moving average and percentage deviation from this trend analysed for proximate factors underlying different patterns use, a series of decomposition exercises done and for identification of actual factors influencing changes in area and yield supply response analysis used

Ph. D : June 1985 : 1991

R. : Asha Krishna Kumar

S : A. Vaidyanathan

321. Temples, tenants and agrarian relations

A : Rural Economics

O : To understand the evolutionary process of the existing land relations under the above religious institutions, how far the particular forms of land relations hinder/help the development of productive forces in agriculture and the effect of the particular land tenure-under which the religious institutions control the lands - on productivity and growth

M Historical materials mainly from Tamil Nadu archives to understand the evolutionary process of inam tenure and the changes in method/modes of land management atleast from the British period. Field work in areas where the religious institutions control land, board, and other relevant individuals, samples will be based on scientific methods

Ph. D : June 1986 . ongoing

R : R. Vidyasagar

S : A. Vaidyanathan

322. Bovine Economy of Tamil Nadu

A : Livestock

O : To bring out the factors that are responsible for a change in Bovine density and composition

M : —

Ph. D : Jan 1987 : ongoing

R ; George Mathew

S : A. Vaidyanathan

323. Urbanisation of Tamil Nadu 1901-81

A : Urban Economics

O : To study the process of urbanisation in Tamilnadu over this century that is from 1900-1980, identify various patterns of urbanisation obtaining in the state and examine the factors underlying few of the distinct patterns

M : —

Ph. D : July 1987 : ongoing

R : Rukmani Ramani

S : K. Nagaraj

324. Factors determining fertilizer consumption and its growth in Tamil Nadu : 1950 : 89

A : Agricultural Economics

O : Study the fluctuations and trends in fertilizer use, the diffusion and intensity of fertilizer use under irrigated and unirrigated conditions, the factors responsible for variation in fertilizer use, technical, economic and institutional factors and analyse the importance of agricultural extension and fertilizer research on farmers education to apply appropriate fertilizer nutrients

M : Study is based on time series secondary data. Techniques such as growth rates, stepwise multiple regression and simple correlation regression applied

Ph. D : Jan 1986 : ongoing

R : T. C. Mohanam

S : A. Vaidyanathan

325. Structure and organisation of Brick industry in Tamil Nadu

A : Industrial Economics

O : To explore the differences in the structural characteristics of Brick industry across various districts of Tamil Nadu

M : Sample Survey

Ph. D : June 1987 : ongoing

R : E. Manoharan

S : A. Vaidyanathan

326. Conjunctive use of surface and ground water in Tamil Nadu Agriculture

A : Agricultural Economics

O : To understand above phenomenon at macro level will be conducted on important irrigation system in Tamil Nadu using secondary data and at micro level to understand the problem in detail. Case studies of Irrigation system conducted covering both and also tank irrigation.

M : —

Ph. D : March 1988 : ongoing

R : P. Anbazhagan

S : A. Vaidyanathan

327. Land market (sales) in the villages of Tamil Nadu

A : Agricultural Economics

O : To examine the nature of transactions in land (agriculture), capture the evolution of market for land in the villages and discern the trend in the pattern of land transaction in the post sixties

M : Two villages identified on the basis of the volume of transactions and cropping pattern over the decades On the basis of the analysis of the secondary data from the Registration dept. as well as the revenue records the nature of the market for land (sales) will be prepared to collect information at the primary survey and after testing the same main survey will be conducted. The main survey results will be processed and a master table prepared.

Ph. D. : March 1988 : Oct 1993

R : S. Thirumalai Velayutham

S : C.T. Kurien

328. Historical Development of Tank Irrigation in Tamil Nadu

A : Agricultural Economics

O : To study the changes in the social relations between the people and irrigation water, explore the changes in the ite effectreness performing different types of irrigation institutions and irrigation management, analyse the changes in the physical and technical characteristics of irrigation system. the impact of change in all the above mentioned aspects of water management and its effects on agriculture.

M : —

Ph. D : Oct 1988 : Oct 1992

R : K. Sivasubramaniyan

S : A. Vaidyanathan

329. Industrialisation and Health : A study of Tanning and Leather Industry in Tamil Nadu

A : Industrialisation and Health

O : To study development of industry by using various indicators like employment, terms of technology, process of production etc. occupation and health hazards of workers in this industry and look into the legislation enacted and enforced in this industry with regard to health and welfare of the workers

M : —

Ph. D : June 1989 : ongoing

R : Millie Nihila

S : Padmini Swaminathan

Ayya Nadar Janaki Ammal College, Sivakasi

330. Problems of Cottage match industries in the Kamaraj Dist.

A : Cottage Industries

O : To find out the problems of production, marketing and finance and ways and suggestions

M : Primary data and secondary data

Ph. D : April 91 : ongoing

R : V. Madasamy

S : R. Neelamegam

331. A study of the impact of minor irrigation with reference to well irrigation in Tirunelveli Kattabomman District

A : Irrigation

O : To study the growth and pattern of well irrigation in Tirunelveli Kattabomman Dist, estimate the impact of well irrigation on the cropping pattern in the study area, evaluate the effect of well irrigation on the household employment and income of the farmers and analyse the socio-economic changes which have taken place over the year in the study area as a result of well irrigation

M : A three stage random sampling technique adopted to select the blocks, villages and the farmers, 3 blocks, 3 villages and 80 well owners and 20 non well owners selected from each village. In total 240 well owners and 60 non-well owners selected

Ph. D : Sep 1981 : Sep 1991

R : R. Murugan

S : G. Velan

332. Self employment programme for educated unemployed youth

A : Employment

O : To find out the end use of money under this scheme

M : Primary and secondary data
M. Phil : 1989 : 1991

R : M. Murugesan

S : Chidambaram

EDUCATION

Annamalai University

333. School effectiveness in relation to organisational climate

A : Educational administration

O : To study the relationship between school effectiveness and organisational climate of Higher Secondary Schools and school innovativeness and organisational climate of higher secondary schools and school results and organisational climate of higher secondary schools

M : Normative Survey method
Ph. D : 1986 : 1991

R : P. N. Nataraj

S : M. Andal

334. An Attitudinal study of National Integration

A : Sociology of Education

O : To study the attitude towards national integration and find out the attitudinal difference among students of different caste, religion and sex

M : Descriptive survey
Ph. D : Dec 1991 : Dec 1994

R : M. Pakkirisami

S : Mamota Das

335. A study of the academic achievement of adolescents in relation to their cognitive style, locus of control, self esteem and mental health

A : Educational Psychology

O : To find out the relationship between academic achievement, cognitive style, locus of control, self esteem and mental health, compare the cognitive style, locus of control, self esteem and mental health of high, average and low achievers and assess the difference caused by the management of the school, type of the school and location of the school on academic achievement

M : Descriptive survey research
Ph. D : 1991 ongoing

R : P. Thilagavathy

S : (Ind)

336. An investigation into the relationship between certain variables and achievement in history of the higher secondary students in South Arcot District

A : Correlates of achievement

O : To study the relationship between interest and achievement of higher secondary students

M : Normative survey used
M Phil : Oct 1991 : Oct 1992

R : S. Rajaram

S : N. Nellaiappan

337. Attitude of college students towards democracy

A : sociology of education

O : To measure the attitude of the college students towards democracy, find out whether there is any differences between rural and urban pupils' attitude towards democracy, whether there is any difference between the various social classes of pupils attitudes towardes (FC. BC, SC) democracy

M : —
M Ed. : Dec : 1991 : May 1992

R : V. Mohan

S : A. Selvaraj Gnanaguru

338. Educational Thoughts of Sathya Sai Baba

A : Educational Philosophy

O : To study the life sketch of survey of Sri Sathyasai Baba, study the general philosophy, his different educational principles

M : Historical method
M. Ed : Dec 91 : May 92

R : M. Soundarajan

S : T. Padmanabhan

339. Vocational Interest of Higher Secondary students

A : Educational psychology

O : To find out if there is any significant difference between boys and girls studying in Higher secondary school in respect of their vocational interest, difference between boys and girls studying in urban and rural areas and their communities

M : Survey method
M. Ed : Dec : 91 : May 92

R : K. Loganathan

S : B. Ellakkakumar

340. A study of habits and relationship between the achievement of the higher secondary students

A : School Education

O : To find out the study habits of the higher secondary students, acheivement of the Hr. Seconary students and study habits and achievement of the urban and rural Hr. Secondary students

M : Survey method
M.Ed. : Sep 1991

R : S. Santhi

S . M. Pakkrisamy

341. Socio, economic status of pupil in relation to adjustment and achievement

A : Psychology

O : To study the socio, economic status of higher secondary first year pupils of boys and girls, study the relationship between adjustment and academic acheivement of boys and girls having high & low SES, and compare the adjustment and achievement of boys and girls

M : Descriptive survey method

M.Ed : Dec : 1991 : May 1992

R : M. Nandagopal

S : V. Natarajan

342. A study of religious tolerance among B.Ed students

A : Philosophy of education

O : Religious tolerance among B.Ed students, find out religious tolerance in PG and UG students, and the religious tolerance in Hindu, Muslim and Christian students

M.Ed. : Sep : 1991 : ongoing

R : M. Valarmathi

S : R. M. Krishnan

343. Perception of student, teachers towards teaching practice programme

A : Teacher education B.Ed.

O : To find out the students teachers perception of teaching practice programme, the arts, science and language group B.Ed. students, perception of teaching practice, and sex differences among student teachers in their perception of TP.

M : Survey method

M.Ed. : Dec 1991 : April 1992

R : C. Kalaiselvam

S : N. O. Nellaiyappan

344. Educational thoughts of J. Krishnamurthy

A : Educational philosophy

O : General philosophy of J. Krishnamurthy, Educational thoughts with reference to the various companence of an educational system and the relevance of educational thoughts for the present

M : 'A synthetic and constructive process' of historical method

M.Ed : Dec 1991 : May 1992

R : D. Suresh

S : C. Dhandapani

345. Educational and Vocational Aspirations of Muslim Girl students

A : School Education

O : To find out educational aspirations of Muslim Girl students, vocational aspirations in rural and urban areas

M : Descriptive survey method

M.Ed : Dec 1991 : May 1992

R : M. A. Ishrath Jahan

S : M. Andal

346. A study of relationship between academic performance and participation in cocurricular activities

A : —

O : To find out the academic performance of the boys and girls, the participation of the student in co-curricular activities, and if there is any difference in academic performance of boys and girls

M : Sampling method

M.Ed : Oct 1991 : April 1992

R : S. Manohar

S : K. Balakrishnan

347. An Investigation into the relationship between scientific aptitude of achievement in science

A : School

O : To find out the achievement of the high school pupils in science, the differences in scientific aptitude of high school boys and girls and their relationship

M : survey method

Ph.D : Dec 1991 : May 1992

R : T. Murugeswari

S : D. Ramalingam

Madurai Kamaraj University

348. Utilisation of Technology for teaching in higher education

A : Educational technology

O : To take stock of the availability of the Hardware and software material in Hr. Edn. institutions, assess the educational, technological and institutional requirements, find out how far the teachers are making use of them, the difficulties experienced by the teachers regarding the use of modern technology in their teaching and suggest suitable recommendations for the edl. technology with reference to its utilisation

M : Survey method, sample faculties of arts and science colleges in Tamilnadu, tools such as educational technology utility check list (ETUC), educational technology requirement scale (ETRS) used

Ph.D : Sep : 1989 : March 1992

R : K. Nachimuthu

S : G. Subramonia pillay

349. Instructional designing by college teachers

A : Educational Technology, Instructional technology

O : To find out the various techniques adopted in different subjects by the college teachers, major methods followed in the teaching of different subjects by the college teachers and identify the pattern of instructional designing if any adopted in different subjects by the college teachers

M : Two rating scales developed and validated for collecting relevant data from college teachers. Instructional designing practices data from the colleges of Madurai Kamaraj University collected.

Ph. D : April 1991 : ongoing

R : P. Rajasekaran

S : G. Subramonia Pillay

350. Socio-economic status of students of polytechnic and their attitude towards manual jobs

A : To find out the attitude of students of polytechnic towards manual jobs, identify the social status of students of polytechnic and their economic status

M : Descriptive method used and the primary data by using socio-economic status scale and secondary sources

M. Phil : —

R : D. Subramanian

S : P.N. Muthiah

351. Economic parameters and interests of vocational stream students

A : Vocational education

O : To identify the economic parameters of vocational stream studies, find out the interests of vocational stream students and examine the relationship between economic parameters and their interests

M : Survey method used. The primary data through personal interviews by using comprehensive structured score card and secondary sources mainly from books, journals and periodicals

M. Phil : —

R : P. Pattinathar

S : P. Muthiah

Mother Theresa Women's University, Guindy

352. Preparing and evaluating self-instructional filmstrips on nutritional education for B.Ed students

A : Educational sociology

O : To prepare self-educational filmstrips on nutritional educators,evaluate the prepared filmstrips and compare the method of teaching against conventional lecture method

M : 770 B.Ed students from different colleges of Tamilnadu chosen. The population was divided into thirty groups, self institutional filmstrips with the teachers's explanations, filmstrips (conventional lecture method, self interested filmstrips along with teachers explanation chosen as the best method.

Ph. D : sep 1991 : ongoing

R : P. Usha

S : S. Thiruvenkatachari

353. Risk taking behaviour, anxiety in relation to academic performance of the students of Higher Secondary School of Ambur

A : Educational Psychology

O : To study the general anxiety of boys and girls at Higher Secondary level, the risk taking behaviour of the boys and girls of Hr. Sec. level of general anxiety, test anxiety and risk taking behaviour in relation to academic performance of boys and girls of higher secondary level

M : Normative survey method, relational and differential, Pearson's product moment correlation, 't' test used

M Phil : 1989 : 1991

R : A. Mangaigarakarasi

S : V. Rajeswari

354. Achievement motivation, locus of control and scholastic achivement of students of Higher Secondary schools in Kumbakonam

A : To find out the 'level' of achievement motivation, locus of control and scholastic achievement of boys and girls, estimate the 'interrelationship among achievement, motivation, locus of control and scholastic achievement of girls, find whether there is any differences between boys and girls

M : —

M. Phil : 1989 : 1991

R : M. Manimekalai

S : K. Subbammal

GEOGRAPHY

University of Mysore

355. Geo-economic analysis of animal resources in Bhutan

A : Resource Geography

O : To account for the analyses of annual resources in Bhutan, evaluate utilisation of animal products in Bhutan and account for the problems of animal based industries and to suggest remedial methods

M : —

Ph. D : 1982 : 1990

R : H. P. Parashivamurthy

S : K. Ranganath

356. Fodder and feed resources for Live stock in Karnataka

A : Agricultural Geography

O : To analyse the agro climatic conditions for the development of fodder and feed resources, examine the crop-livestock of the state and explore the present availability and utilisation of various feeding stuffs

M . —

Ph. D : June 1986 : May 1991

R : S. Krishnappa

S : K. Ranganath

357. The Geo-economic analysis of tobacco cultivation in Mysore Dist

A : Agricultural Geography

O : To analyse spatio-temporal diffusion patterns of tobacco cultivation with land allocation and evaluate the output of tobacco cultivation on cultural landscape of the adopters

M : —

Ph. D : 1986 : Jan 1992

R : Ranganatha

S : K. Ranganath

358. Problems and prospect of agricultural development in Dakshina Kannada

A : Agricultural Geography

O : To study the problems of agriculture in Dakshina Kannada

M : Factor analysis, crop combination and productivity measure

Ph. D : 1985 : 1989

R : R. Dinesh Rao

S K. N. Udayakumar

359 : Impact of irrigation on agricultural development in Raichur Dist

A : Irrigation agriculture

O : To study the changes in the agricultural pattern of Raichur District, from dry to wet farming

M : —

Ph.. D 1985 : 1992

R : V. S. Ashwathnarayana

S : . K. N. Udayakumar

360. Dry land development in Southern Mysore District

O : To study the problems and prospects of dry land development in Mysore

M : —

Ph. D : 1987 · ongoing

R : Somasundara

S : K.N. Udayakumar

361. Spatial aspects of Brick industry and its associated environmental problems

A : Environment

O : To evaluate the geograpical factors of location of brick industry in the two urban areas of different sizes, evaluate demand and supply conditions operating and evaluate the impact on the agricultural, soil and the resultant landforms created by brick loam quarrying

M : Field survey in the brick loam quarries situated around 20 and 15 kms around the two urban areas, collecting maps and statistics from the municipal offices regarding constructions, testing soil samples extracted from surface and subsurface of the brick loam quarries and classification of landforms

Ph.D. : 1987 : 1992

R : Asima Nusrath

S : P. D. Mahadev

362. Rural change and Population dynamics in Western states (Karnataka)

A : Rural Development and Rural change

O : To study the migration pattern of plantation labourers and resultant population pattern, process of rural change due to governmental and structural changes in villages of Western ghats

M : Personal interview and data from primary and secondary sources

Ph.D. : 1988 : 1992

R : B. N. Shivalingappa

S : P. D. Mahadev

363. Transport networks and regional development in Mandya District

A : Transport Geography

O : To study the road network, growth and efficiency and its impact on regional growth

M : —

Ph.D : June 1989 : ongoing

R : Dayananda

S : K. N. Udayakumar

364: Impact of agriculture on non-point source of pollution in the cauvery basin

A : Water Pollution

O : To assess the source and amount of pollution by agricultural activities along the cauvery basin in Karnataka

M : —

Ph.D : Dec. 1991 : ongoing

R : H. S. Manjunath

S : K. N. Udayakumar

365. Non Point sources of pollution along Kaveri

A : Environmental

O : To assess the landuse in the Kaveri basin Karnataka, study the demographic profile of the area & assess the quantum of pesticides and fertilizers used in agriculture in the area

M : Field survey of the villages, questionnaires for farmers and fertilizer dealers, interview with Dept. of agriculture officers and interaction with Pollution Board

Ph.D : 1990 : 1992

R : P. D. Mahadev

S : (Ind)

HISTORY

University of Hyderabad

366. Social and economic history of early Deccan : A source book

A : Ancient social and economic history of India

O : To collect archaeological, indscriptional sources for the early history of Deccan upto the fourteenth century and evolve data base of bibliographic reference to all studies of the Deccan period.

M : UNESCO prepared software CDS/ISIS to tabulate the textual data in worksheets. Bibliography prepared on *Bibliog* and Dbase3+

Ph.D : Aug 1988 : Aug 1992

R : Aloka Parasher Sen

S : (Ind)

367. Creches in the organised and unorganised sectors in Hyderabad

A : Women's studies

O : To survey and evaluate creches in the organised sector, the need for these facilities in unorganised sectors, examine infrastructural facilities, problems of management and the creche worker in running of creche in former, suggest measures for improvement of these facilities, profile the homebased worker, her contribution to household income work, responsibilities of home and children, probe their response to concept of creche in unorganised sectors

M : Formal questionnaires, interviews & field observations. Formal schedules administered to members of management and trade unions, creche workers and users.

Gen : June 1989 : June 1990

R : J. Kameshwari & Rekhapande!

S ; (Ind)

368. Girl child and family in Telengana

A : Women's studies

O : To generate data of comparable nature on some common parameters that will give an understanding of the situation of girl child, identify major problems relating to her status, suggest alternate course of action, start a series of actions to help rectify the situation and assist the community women in particular to pursue desirable alternatives by organising themselves

M : Data from govt. agencies collected, literature survery of thesis and dissertations, news paper reports and articles pertaining to Telengana region, household surveys for general socio-economic & demographic data and a detailed survey of mother and one girl child in a household and informal discussions.

Gen : Jan 1991 : March 1992

R : Rekha Pande & Kameshwar

S : Women studies cell

Annamalai University

369. The History of Thiruvavaduthurai Mutt

A : South India

O : —

M : —

Ph.D : 1987 : ongoing

R : G. Swaminathan

S : M. S. Govindasamy

370. National Movement on the South Arcot District - Tamilnadu

A : Modern Indian History

O : —

M : —

Ph.D : 1988 : ongoing

R : Sankari K.

S : P. E. Mohan

371. Darasuram Airavateswara Temple — A study

A : South India

O : —

M : —

Ph.D : Nov 1989 : ongoing

R : J. Rubavathi

S : S. Govindaraju

372. Sri Sattanathaswamy Temple at Sirkali - A Study

A : South India

O : —

M : —

Ph.D : Nov 1989 : ongoing

R : S. Anuradha

S : S. Govindaraju

373. Lord Muruga in Art and Literature (Tamil) - A study

A : South India

O : —

M : —

Ph.D : Jan 1991 : ongoing

R : P. Rajan

S : S. Govindaraju

374. History of Tamilnadu Welfare Legislations with special reference to women

A : Modern Indian History

O : —

M : —

Ph. D : April 1991 : ongoing

R : G. Syamala

S : A. Subbian

375. Reservation policy in Tamil Nadu. A study in socio-economic Development of Backward Communities and weaker sections

A : —

O : —

M : —

Ph. D : April 1991

R : A. Theenarasu

S : A. Subbian

376. French colonial administration

A : —

O : —

M : —

Ph. D : ongoing

R : M. Deenadayalan

S : S. Bhaskaran

377. A study of Minor Temples in Tamil Nadu

A : —

O : —

M : —

Ph. D : ongoing

R : A. Sivakamasundari

S : Dr. S. Govindaraju

378. Status of women in Madras presidency under British rule

A : —

O : —

M : —

Ph. D : ongoing

R : M. Samathanam

S : Subbian A.

379. The work of Pondicherry Mission with special reference to Social Upliftment of Backward Communities

A : —

O : —

M : —

Ph. D : ongoing

R : G. John Peter

S : Subbian A.

380. History of the Sivaganga kingdom

A : —

O : —

M : —

Ph. D : ongoing

R : S. Radhakrishnan

S : Subbian A.

381. C. Rajagopalachari & Freedom Development

A : —

O : —

M : —

Ph. D : submitted

R : Tamilchelvi

S : A. Subbian

382. Freedom Movement in Composite Ramanathapuram Dist

A : —

O : —

M : —

Ph. D : (submitted)

R : K. S. Ramasamy

S : M. S. Govindasamy

383. The Tiruppanandal Temple

A : —

O : —

M : —

Ph. : submitted

R : R. Malini

S : M. S. Govindasami

384. Tamil Illakkiyathil Nattiya Varalaru (Tamil)

A : —

O : —

M : —

Ph. D : (submitted)

R : —

S : —

Mother Theresa Women's University

385. Histroical perception of women of Pramalai Kallar Community of Madurai District

A : Women's studies

O : To find out the historical perception of women's role in the Pramalai Kellar community society, the changing position of women in the field of education, economy, policies and the changing perception of women in their attitudes, life and various fields

M : Historical methodology based on archival materials and sociology methodology based on interview schedule and observation

Ph. D : Aug 1986 : Dec 1992

R : P. V. Manoranjitham

S : A. Suryakumari

386. Women and crime in Tamil Nadu

A : Women's studies

O : To find out various crimes committed by women, causes that motivate women to commit crime and various means and ways to tackle the problem

M : Tamilnadu archives, national archives, Delhi, libraries and Historical as well as Qualitative analysis

Ph. D : Oct 1990 : Oct 1994

R : P. Gowri

S : A. Suryakumari

387. Evolution of Madras as an urban center and women's development-A Historical perspective of the link and impact

A : —

O : To find and establish the nature and kind of link between urbanization of Madras and the position of women, explore the multi-sided impact of such urbanising process on the development of women

M : Tamil Nadu Archives, MIDS, National archives, ISEC, and library reference work

Ph. D : ongoing

R : S. Latha

S : A. Suryakumari

388. Adages and the status of women in Tamil Nadu

A : Women's studies

O : To find out various adages that depict the status, explore the multi-faced impact on women and make a comparision with those adages that deal with the position of women.

M : Published works, libraries, interviews, schedule and qualitative analysis

Gen : March 1992 : March 93

R : A. Suryakumari

S : (Ind)

389. Women and colonial public health policy in the Madras presidency AD 1858-1900

A : Women's History

O : To find out British government's attitude towards women's health and the impact of public health policy on the women

M : Archival material

Gen : —

R : G.A.L. Satyarani

S : (Ind)

390. European women in Madras presidency and their contribution

A : Women's Studies

O : To find out the life style of European women in Madras Presidency, analyse the position of women in Madras presidency before the advent of European women in India, and the interest and efforts of European women for the welfare of their counterparts

M : Historical methodology and primary data

Gen : March 1992 · ongoing

R : K.S. Remadevi

S : (Ind)

391 Feminism and Nationalism in Tamil Nadu 1917-1947

A : Women's studies

O : To find out how feminism in Tamilnadu awakened women and its results, women's contribution to nationalism and history of Tamilnadu

M : Archival materials and qualitative analysis

Gen : March 1992 : Feb 1995

R : P.N. Premalatha

S : (Ind)

PSYCHOLOGY

Osmania University

392. Adjustment porblems of Physically handicapped in relation to their home/hostel, school and occupation

A : Disabled groups

O . To find out the personality correlates of the protest behaviour in the physically handicapped, their level of adjustment in relation to their hostel climate, school and occupations, compare and contrast their academic performance in the classroom with that of the non-hanicapped in comparable school conditions, work out learning modules for different categories of handicapped in order to help the classroom teachers in their instruction, examine motivational/aspiration patterns in different categories of handicapped and also to match them with their school achievement, work out interventions at different levels of their school careers and examine the feasibility of alternatives to the conventional classroom teaching

M : Questionnaire, testing and interventions

Gen : 1990 :1993

R : N.Y. Reddy

S : (Ind)

393. Educational, vocational, Guidance and Training Project

A : Socially Disadvantaged Groups

O : To evaluate students in the residential school with the help of several psychological tests in order to find out their general ability, aptitudes, interest patterns and learning difficulties, prepare and provide supplementary reading material and class room enrichment programme to slow learners in order to bring them on a par with the advanced learners, create learning research centres in hostels in order to help students suffering from learning disabilities. The centre consists of trained teachers in counselling and guidance techniques. For the purpose it is necessary to train teachers through workshops in different methods in psychological evaluation, diagnosis of learning disabilities and counselling techniques & conduct short duration workshops for some of the teachers of Residential schools at the Dept. of Psychology, Osmania University in test administration, diagnostic scales and remedial teaching methods

M : Questionnaire, testing and interventions

Gen · 1982 : ongoing

R : N. Y. Reddy

S : (Ind)

SOCIOLOGY

University of Kerala

394. Social mobility among Schedule caste women in Kerala

A : —

O : —

M : —

Ph. D : awarded

R : P. Leelakumari

S : M. Indu Kumari

395. Socio-cultural impact of integrated rural development programme in Kerala

A : —

O : —

M : —

Ph. D : ongoing

R : Krishnakumari

S : M. Indukumari

396. Effect of occupation health hazards on women workers in Kerala

A : —

O : —

M : —

Ph. D : ongoing

R : A. K. Geetha Nair

S : M. Indukumari

397. Role of libraries in the socio-economic, cultural and educational development among the rural people

A : —

O : —

M : —

Ph. D : awarded

R : S· S. Jagnayak

S : M. Indukumari

398. Social aspects of acute diarrhoeas among the 'underfives' in Southern Kerala

A : —

O : —

M : —

Ph. D : awarded

R : P. N. Karunakaran Nair

S : M. Indukumari

399. Deforestation and changing pattern of tribal economy in Kerala

A : —

O : —

M : —

Ph. D : submitted

R : A. Radhakrishnan Nair

S : M. Indukumari

400. Social status of Tribal Women in Kerala : A case study of the Kurichians of Wayanad

A : —

O : —

M : —

Ph. D : submitted

R : J. R. Reghurama Das

S : M. Indukumari

401. Social and psychological Adjustment of Elderly Nayar women in Kerala

A : —

O : —

M : —

Ph. D : ongoing

R : Y. S. Sivan

S : M. Indukumari

402. Women in Unorganised sector: A study of quarry workers in Trivandrum

A : —

O : —

M : —

Ph. D : ongoing

R : E. Vijayakumari

S : M. Indukumari

403. Socialization and Gender discrimination - Girl child among the Muslims in Kerala

A : —

O : —

M : —

Ph. D : ongoing

R : S. Mridula Venugopal

S : M. Indukumari

404. Psycho-social adjustments of female cancer patients in southern Districts of Kerala

A : —

O : —

M : —

Ph. D : ongoing

R : P.T. Latha

S : M. Indukumari

405. Women in Grassroots Democracy (a study of Kerala)

A : Women studies

O : To analyse women's perception in taking political roles and the ideological services which prevent women from taking such roles, study the socio-economic and political background of women representation in the panchayat, find out the obstacles, which women face for the more effective role in panchayat and analyse the extent of participation in the development activities of women members in particular and rural activities of women members in particular

M : Field data from the women members of the panchayat of Trivandrum district. A sample of 150 rural women and the extent of their participation in development activities and their perception and leadership roles analysed to know their socio, economic and political background, obstacles towards more effective role in panchayat

Gen : 1991 : May 1992

R : Abraham Vijayam

S : Manu Bhaskar

Madras Institute of Development Studies

406. The Educational status of women in India with special reference to Tamil Nadu

A : Women and Education

O : To look into the history of educational status of women, especially with reference to the differential caste-class participation

M : Socio-History research

Ph. D : Feb 1990 : ongoing

R : R. Akila

S : P. Radhakrishnan

SOCIAL WORK

Madras School of Social Work

407. Relevance of people's attitudes and beliefs for counselling

A : Counselling

O : To study the relationship between modernization, anomalies, beliefs, and the implications of the above for determining approaches to counselling

M : One hundred factory workers in urban areas and semi-rural areas interviewed using structured interview schedules

M. Phil : Jan 1990 : Dec 1991

R : A. Ezhilpari

S : P K Visvesvaran

408. Metropolitan playgrounds

A Youth welfare

O : To find out the characteristics of the users of playgrounds, problems in maintenance and the nature of their use

M : Ten playgrounds selected, 10 staff members and 100 users interviewed. Structured schedules and observation schedules used.

Ph. D : Jan 1990 : Dec 1991

R : P. G. Ranganathan

S : D. Varadharajan

409. Demography, Health and family welfare in the slums

A : Family welfare

O : To study the demographic characteristics, socio-economic traits, health care and status, attitudes and beliefs concerning family planning in slum populations and to offer appropriate suggestions to the Directorate of Family Welfare, Govt. of Tamil Nadu

M : 4500 households selected from 96 slums and interviewed by structured interview schedules

Gen : May 1988 : August 1991

R : K..N. George

S : (Ind)

PART II

Specialisations

Area of Specialisation		Centre
Agriculture		
Agricultural Economics	—	Andhra University Sri Krishnadevaraya University Administrative Staff College, Hyderabad Institute of Planning and Development Studies, Visakapatnam Gulbarga University Bharathidasan University Madurai Kamaraj University University of Madras Tamil Nadu Agricultural University Madras Institute of Development Studies
Agricultural Finance	—	Madurai Kamaraj University Tamil Nadu Agricultural University
Agricultural Marketing	—	Tamil Nadu Agricultural University Sri Krishnadevaraya University
Agricultural Price Analysis	—	Tamil Nadu Agricultural University
Communication	—	Agricultural College and Research Institute, Madurai
Environmental Economics	—	Madurai Kamaraj University Madras Institute of Development Studies
Farm Management	—	Tamil Nadu Agricultural Universiry
Forest Economics	—	Tamil Nadu Agricultural University
International Commodity Trade	—	Andhra University Madurai Kamaraj University
Plantation Economics	—	Madurai Kamaraj University
Production Economics	—	Tamil Nadu Agricultural University
Resource Economics	—	Tamil Nadu Agricultural University
Rural Banking	—	Sri Krishnadevaraya University

Area of Specialisation		Centre
Rural Development	—	Andhra University University of Hyderabad Sri Krishnadevarava University Bharathidasan University Madurai Kamaraj University Tamil Nadu Agricultural University Madras Institute of Development Studies
Water Management	—	Tamil Nadu Agricultural University

Anthropology

Cultural Anthropology	—	Karnatak University
Physical Anthropology	—	Karnatak University
Population Genetics	—	Andhra University
Social Anthropology	—	Karnatak University
Tribal Economy	—	Andhra University

Commerce and Business Administration

Business policy	—	Kousali Institute of Management Studies
Marketing Management	—	Administrative Staff College, Hyderabad Kousali Institute of Management Studies
Operations Management	—	Administrative Staff College, Hyderabad

Economics

Demography	—	Andhra University Bangalore University Institute for Social and Economic Change, Bangalore Gandhigram Rural Institute, Madurai

Area of Specialisation		Centre
Development Economics	—	Institute of Development and Planning Studies, Visakapatnam Cochin University of Science & Technology Madurai Kamaraj University Tamil Nadu Agricultural University Madras Institute of Development Studies
Econometrics	—	Andhra University Cochin University of Science & Technology Centre for Development Studies, Trivandrum Madurai Kamaraj University Tamil Nadu Agricultural University Madras Institute of Development Studies
Economic Theory	—	Madurai Kamaraj University Madras Institute of Development Studies
Energy Economics	—	Administrative Staff College, Hyderabad Madurai Kamaraj University Madras Institute of Development Studies Osmania University
Envionmental Economics	—	Administrative Staff College, Hyderabad, Madras Institute of Development Studies
Gandhian Studies	—	Karnatak University
Human Resource Development	—	Madurai Kamarai University
Industrial Economics	—	Gulbarga University Cochin University of Science & Technology Centre for Development Studies, Trivandrum Bharathidasan University Madurai Kamaraj University MIDS

Area of Specialisation		Centre
International Economics	—	Andhra University Cochin University of Science and Technology Madurai Kamaraj University
Labour Economics	—	Sri Krishnadevaraya University Centre for Development Studies, Trivandrum Madurai Kamaraj University Madras Institute of Development Studies
Mathematical Economics	—	Madurai Kamaraj University
Monetary Economics	—	Andhra University
Operations Management	—	Institute of Planning and Developmen, Studies, Visakapatnam
Public Finance	—	Andhra University Gulbarga University
Political Economy	—	Madras Institute of Development Studies
Regional Planning	—	Andhra University Osmania University Institute of Social and Economic Change, Bangalore
Research Methodology	—	Centre for Development Studies, Trivandrum Madras Institute of Development Studies
Urban Economics	—	Andhra University Osmania University Madras Institute of Development Studies
Welfare Economics	—	University of Mysore Madras Institute of Development Studies
Women's Studies	—	University of Kerala Mother Theresa Women's University Guindy Madras Institute of Development Studies

Education

Adult & Continuing Education	—	Sri Krishnadevaraya University Sri Venkateswara University University of Madras Madras Institute of Development Studies

Area of Specialisation		Centre
Curriculam Development	—	Sri Venkateswara University
Distance Education	—	University of Madras
Economics of Education	—	Andhra University Madras Institute of Development Studies
Educational Administration	—	Sri Venkateswara University
Educational Evaluation	—	Madurai Kamaraj University
Educational Planning	—	Annamalai University
Educational Psychology	—	Annamalai University Mother Theresa Woman's University
English language teaching	—	Annamalai University
Educational Technology	—	Annamalai University Madurai Kamaraj University
History of Education	—	Annamalai University
Population Education	—	University of Madras
Philosophy of Education	—	Annamalai University
Science Education	—	Annamalai University
Teacher Education	—	Annamalai University

History

Ancient Indian History	—	University of Hyderabad Mother Theresa Women's University

Geography

Livestock Geography	—	University of Mysore
Regional Planning	—	University of Mysore
Resource Geography	—	University of Mysore
Transport Geography	—	University of Mysore
Urban studies	—	University of Mysore

Psychology

Adoloscence	—	Osmania University
Clinical Psychology	—	Bangalore University
Counselling and Guidance	—	Bangalore University
Industrial Psychology	—	Bangalore University University of Calicut

Area of Specialisation		Centre
		Social Work
Organisational behaviour	—	Administrative Staff College, Hyderabad
		Madras School of Social Work
Personnel Management and Industrial Relations	—	Administrative Staff College, Hyderabad
		Mother Theresa Women's University
		Madras School of Social Work
Rural Social work	—	Sri Krishnadevaraya University
Urban Social work	—	Sri Krishnadevaraya University
		Sociology
Sociology of conflict	—	University of Kerala
Sociology of Development	—	University of Kerala
Sociology of Education	—	University of Kerala
		Madras Institute of Development Studies
Medical Sociology	—	University of Kerala
		Gandhigram rural Institute
Minority Communities	—	University of Kerala
		Madras Institute of Development Studies
Political Sociology	—	University of Kerala
Tribal Studies	—	University of Kerala

APPENDIX

Addresses of the Universities, Research Institutions and Colleges which responded to the Twentysecond Census*

1. Andhra University
   Visakapatnam,
   Waltair 530 003, Andhra Pradesh
2. Osmania University
   Hyderabad 500 007
   Andhra Pradesh
3. University of Hyderabad
   Central University PO.
   Hyderabad 500 134
4. Sri Krishnadevaraya University
   Anantapur 515 003
   Andhra Pradesh
5. Sri Venkateswara University
   Tirupathi 517 502
   Andhra Pradesh
6. Administrative Staff College of India
   Bella Vista
   Hyderabad 500 049
7. Director
   Institute of Development & Planning Studies
   Muvvalavanipalem
   Visakapatnam 530 017
   Andhra Pradesh
8. Gulbarga University
   Janana Ganga
   Gulbarga 585 106
   Karnataka State
9. Karnatak University
   Pavate Nagar,
   Dharwad 580 003, Karnataka State
10. University of Mysore
    Manasa Gangotri
    Mysore 570 006
    Karnataka State
11. Institute for Socio Economic Change (ISEC)
    Nagarbhavi PO.
    Bangalore 560 072
12. Kousali Institute of Management Studies
    Karnatak University
    Dharwad 580 003
13. Cochin University of Science & Technology
    University of Cochin
    Cochin 682022
14. University of Kerala
    Kariavattom PO.
    Trivandrum 695 581
15. Centre for Development Studies
    Prasanthnagar Road
    Ulloor, Trivandrum 695 011
16. Indian Institute for Regional Development Studies
    Pullarikunnu, Kottayam 686 027
17. Annamalai University
    Annamalai Nagar 608 002
    Tamilnadu
18. Bharathidasan University
    Tiruchirapalli 620 024
19. Department of Applied Research
    Gandhigram Rural University
    Gandhigram 624 302
20. Madurai Kamaraj University
    Palkalai Nagar
    Madurai 625 021

* Note : Enquiries may be addressed to the researcher (s) care of the department in the institution in which he/she they are working.

21. Mother Theresa Women's University
13, Race Course Road
Guindy, Madras 600 032

22. Tamil Nadu Agricultural University
Dept. of Agricultural Economics
Coimbatore 641 003

23. Dept. of Agricultural Extension & Rural Sociology
Agricultural College and Research Institute
Madurai 625 104

24. University of Madras
Chepauk, Madras 600 005

25. Madras Institute ef Development Development Studies
79, Second Main Road
Gandhinagar, Adyar
Madras 600 020

26. The Madras School of Social Work
32, Casa Major Road
Egmore, Madras 600 008

27. Principal
Ayyanadar Janaki Ammal College
Sivakasi 626 123
Tamil Nadu

Publications of the Institute consist of the following categories:

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

2. **Cyclostyled Publications :** These consist of Working Papers, Digest Series, Data Series, Popular Series, Interns Reports and Offprint Series brought out since 1978. Detailed list available on request from the Programme Coordinator of MIDS.

3. **Occasional Publications of the Institute Include :**

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

b) *Area Studies Bibilography Tamil Nadu* (1984) published by MIDS, pp. 226 Rs. 30/-for paper cover and Rs. 40/- bound volume.

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

a), b) and c) obtainable from the Programme Coordinator of MIDS.

4. **Special Publications***

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

b) *Guide to Research in Economics*, edited by C.T Kurien (second edition) (1985) & Published for MIDS by M/s. Rainbow Publishers, Coimbatore, pp. 390 Rs. 100/-

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

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

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

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

Regd. No. M. TN/MS(S) 485

MADRAS INSTITUTE OF DEVELOPMENT STUDIES (MIDS)

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

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

The activities of the Institute are:

- —Research leading to Ph.D. Degree
- —Studies and action-oriented research in micro-development prc
- —Documentation and library service in development problems
- —Exchange and dialogue at the State, National and Internationa on development issues
- — Publication of papers and results of the Institute

Editor : Dr. Malcolm S. Adiseshiah. Published by Dr S. Neelakantan for Madras Institute of Development Studies, 79, Second Main Road, Gandhinagar, Adyar, Madras 600 020, India.
printed at reliance printers, sardar patel road, madras-600 020.