



Tamil Arasu

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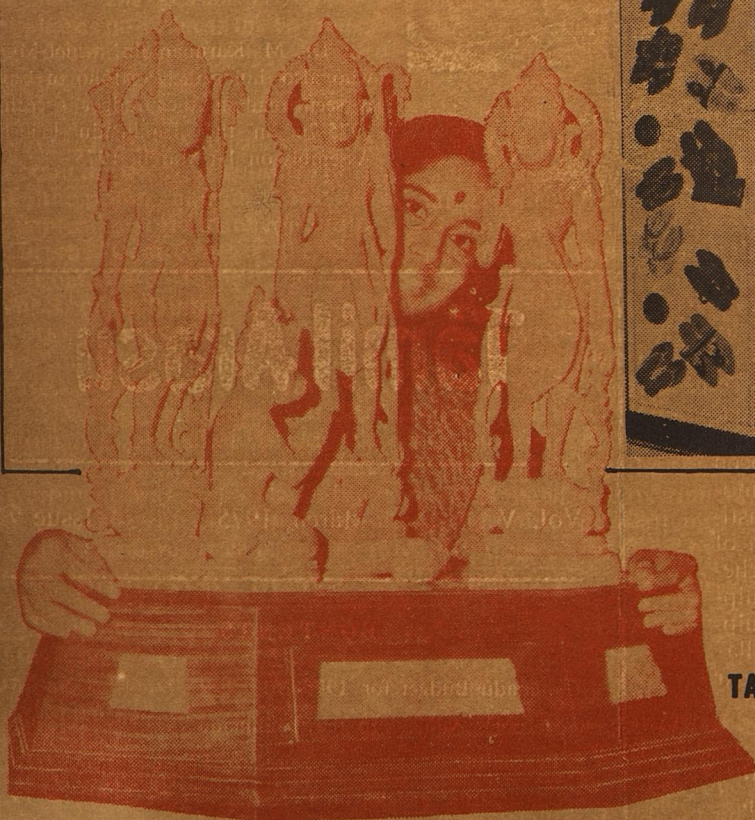
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Dr. M. Karunanidhi, Chief-Minister who also holds the Portfolio of Finance is seen reading the Budget speech for 1975-76 in the Tamilnadu Legislative Assembly on 1st March, 1975.

FOR REVIVAL OF TAMIL HISTORY, ART & CULTURE

A provision of Rs. 76.82 lakhs has been made for various programmes for the promotion of Tamil including the International Institute for Tamil Studies and the preparation of a Tamil etymological dictionary. We have schemes to protect and promote the art of sculpture and to give employment to hundreds of sculptors. The Sculpture Training Centre at Mamallapuram will be strengthened in the coming year with new courses.

The Thirumalai Naicker Mahal at Madurai will be converted into a Museum in 1975-76. Government have also decided to assist the effort to raise a temple for "Tamil Thai" at Karaikudi which is the resting place of Kamban. —From Budget Speech

Tamil Arasu

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Development Schemes go full Steam Ahead In spite of Drought

Presenting the Budget for 1975—1976 in the Legislative Assembly on 1—3—1975, Dr. M. Karunanidhi, Chief Minister, said :

The Indian economy is adrift in the crisis of iniquity arising from the unabated increase in prices and the inability of purchasing power to grapple with it. Hon'ble Members will appreciate that inevitably our Budget is overshadowed by this distressing situation.

Although there is severe world-wide inflation, India, because of her poverty, is not in a position to take it in her stride. Monetary instability erodes the real value of incomes and of savings and investments as well. It is also responsible for the stubborn continuance of social inequalities which we wish to abolish. Prices rise and wages are pushed up. The soaring Kite of price inflation is given a further lift by the threat of wage increases. Yet there are millions in India who are not in a position to make wage demands. The reason is simple : they have no wages to be raised. Our economic revolution should also take them into account. Indeed, it should have them as its centre-piece.

As Arignar Anna has pointed out on many occasions in this House, while the powers and responsibilities for controlling prices are concentrated in the Centre, it is the State which has mostly to bear the consequences of inflation. The Annual Report of the Reserve Bank of India on Currency and Finance, released a couple of months ago, has itself pointed out that "the continuance of inflation had also generated the fear that perhaps Government was not able fully to cope with the situation for political or administrative reasons."

NOT CONSULTED

While the severe drought in our State in the current year has no doubt aggravated the problem, no one can deny that the factors responsible for it are the financial policies pursued in the last few years by the Centre. In this situation we will have to take urgent policy decisions in several areas and particularly in regard to—

- the size and pattern of Plan investments ;
- immediate measures for increasing agricultural and industrial output and
- a national policy on wages, incomes and profits comprising both the public and private sectors.

Immediate attention is necessary at least on these basic issues. Many of the decisions taken by the Centre with the objective of controlling inflation are not popular or palatable to the people. It is, therefore, desirable that the Centre should consult the State Governments who are in close contact with the people before undertaking such measures. I have repeatedly emphasised that the Centre should convene a Conference of Chief Ministers to freely and frankly discuss the economic situation in the country and the various measures that need to be pursued. It is a matter for regret that the Central Government have not only not responded to this suggestion but even the National Development Council which should be convened periodically has not met in the last 15 months.

It is an anomaly that while the Centre is not able to prevent a large deficit in its Budget, State Governments are being constantly advised and even warned that their ways and means should always be in balance and that they should not incur any budgetary deficits. I must make it clear that I am not pleading for uncovered deficits in State Budgets. I only wish to emphasise that uniform yardsticks should be adopted whether it be the Centre or any one of the State Governments. There should also be no attempt to reduce the Centre's deficit by curtailing legitimate assistance to the States for development or for the relief of natural calamities or by denying them an equitable share in market borrowings.

BALANCING PROGRESS AND PRUDENCE

In the face of these uncertainties in the Centre-State financial relationships, we have to formulate our Budget in the light of our own circum-

stances, balancing the needs of both progress and prudence. As far as we are concerned, the principal objectives which are reflected in our Budget for 1975—76 are adequate provisions for :—

Annual Plan in 1975—76 ;

Development schemes outside the Plan ;

Drought relief ;

Special schemes for social welfare and

Measures for reducing social inequalities.

In 1975—76, the Centre has approved a Plan outlay of Rs. 143 crores as against our request for an outlay of Rs. 163 crores. Central assistance for only Rs. 41.15 crores has so far been assured. We have emphasised the need for an increase in Central assistance. The outlay of Rs. 143 crores does not include developmental expenditures that are financed from the internal resources and borrowings of a number of statutory authorities and public sector corporations. Including such extra-budgetary development expenditures as part of Plan outlay, the size of the Plan will be increased to the extent of Rs. 27 crores and will be of the order of Rs. 170 crores.

Rs. 57 Crores Drought Relief

We have been anxious that the pace of development in our State should not receive a set back due to the severe and unprecedented drought that faces us. The normal Plan provisions for drinking water and for various schemes which can provide sizable employment in rural areas will be concentrated in the drought affected areas in the next seven months. We have estimated that Rs. 7 crores in the current year and Rs. 18 crores in 1975—76 will be spent from Plan provisions in the drought affected areas. In addition, we have released Rs. 10 crores to Collectors and Rs. 2 crores to the Tamil Nadu Water Supply and Drainage Board in the current year outside the Plan for drought relief. We have also provided Rs. 20 crores for drought relief outside the Plan in the Budget for 1975—76. Accordingly, a total provision of Rs. 57

Power and Irrigation Get Top Priority

crores has been made for drought relief within and outside Plan provisions in the current year and in the coming year. We have requested the Centre for an assistance of Rs. 30 crores for drought relief. The Centre has promised an assistance of Rs. 7.5 crores in the current year. We hope that the balance will also be made available.

We undertook relief works to the extent of Rs. 18.64 crores in connection with the drought in 1969. This resulted in long-term benefits throughout the State in terms of rural drinking water supply, minor irrigation, roads and the like. Similarly, we incurred an expenditure of Rs. 13.61 crores in connection with the floods of 1972 and used this expenditure for creating lasting assets such as land reclamation, improvement of roads and restoration of irrigation sources. In the same way, I wish to point out that the drought relief expenditure currently being incurred will also be directed towards building up permanent assets in rural areas. By the same token, Central assistance for drought relief should result in a genuine additional transfer of resources to the State. It will not serve any purpose if it is only an advance instalment of normal Plan assistance liable to be deducted in the subsequent year. We trust that accounting will not become a substitute for aid.

The Budget has provided for sustained progress in our development schemes, both within and outside the Plan, despite the financial constraints created by Nature's neglect.

The New H.Y. Strains

Agriculture is the life breath of the economy of Tamil Nadu. It has been the policy of our Government to give the highest priority to agricultural development. As in the past years, new paddy varieties ADT-31 and Pusa-33 have been released in the current year. A new short duration paddy strain 6543 which matures within 90 days has been evolved by the Agricultural University. A new hybrid millet known as Kovilpatti Tall which gives higher yields of cholam as well as fodder has been released. We have also introduced a new cotton variety called CBS-156 which

is capable of being spun up to 120 counts and which can yield 15 to 20 quintals per acre.

We have extensive areas of cultivable lands estimated at 11 lakh acres lying waste at present. In order to bring such areas progressively under cultivation we have recently set up a State Farms Corporation. The State Seed Farms are being strengthened with various facilities for ensuring an increased output of seeds. In 1975—76, three seed farms in an area of 100 acres each will be established in the coastal districts in order to extend the cultivation of tapioca to one lakh acres. Another important project that will be taken up is the extension of the Intensive Agricultural Area Programme to the districts of Ramanathapuram, Salem, Dharmapuri and Kanyakumari. **I am happy to announce that as a result, the entire State will be covered by intensive programmes by the end of 1975—76.**

Summer Crop Programme

In the context of the drought, an ambitious summer cropping programme has been launched with a target of bringing 5 lakh acres under paddy, 6 lakh acres under millets and 6 lakh acres under pulses. Honourable Members are already aware of the several facilities and concessions we have announced in order to encourage our ryots to take to summer cultivation. The soil conservation and minor irrigation programmes being administered by the Department of Agriculture will also be significantly enlarged in order to benefit the drought affected areas. In 1975—76, the Department of Agriculture will sink 2,500 tube wells, 2,000 filter points, 800 bore wells and will deepen 1,800 wells. Adequate provisions have been made for the purchase of drilling and rock blasting equipments for this purpose.

The intensive cattle development project which has been introduced in the districts of Madurai and Tirunelveli will also be implemented in Thanjavur in 1975—76. Eight new key village blocks and 25 additional veterinary dispensaries will be opened in the State in the coming year. **A new exotic cattle development project with provision for 240 high yielding pedigree cows and 10 bulls imported from Denmark**

will be set up in Eachenkottai in Thanjavur district. A provision of Rs. 20 lakhs has been made for the Poultry Development Corporation, which was established last year and is expanding its activities.

The Fisheries Development Corporation which was formed last year has been functioning satisfactorily. The programme in 1975—76 is to construct 250 mechanised fishing boats for fishermen with financial assistance from the Agricultural Refinance Corporation and nationalised banks. The Plan provides for a share capital participation and loan of Rs. 70 lakhs for this purpose. The Corporation has also placed orders for two imported fishing trawlers which will supplement four indigenous trawlers for its deep sea fishing project. The Tamil Nadu Forest Plantation Corporation has taken over about 1.87 lakh acres of forest lands from the Forest Department and is raising new plantations in these areas. A sum of Rs. 12 lakhs has been provided in the Budget towards loan and share capital participation in this Corporation.

Irrigation—Benefits—5.5 lakh acres in 8 years

We have given high priority to major, medium and minor irrigation from year to year. In the last eight years, we have taken up 23 medium and major irrigation projects at a total cost of Rs. 112.5 crores to benefit 5.5 lakh acres. In the same period, we have completed 6,600 works under the Special Minor Irrigation and Desilting-cum-Reclamation Programmes at a total cost of Rs. 30 crores to benefit nearly 10 lakh acres. In taking up new irrigation schemes, we have relaxed the conventional yardsticks of cost-benefit ratios, especially in backward areas, having regard to the fact that more economical schemes have been taken up in our State. **Higher food production and the assurance of benefits of irrigation to the people are currently our prime considerations in sanctioning new irrigation projects.**

An amount of Rs. 31.51 crores has been set apart in the Budget for the development of irrigation facilities and for maintaining existing irrigation sources. In 1975—76, the following eight new schemes at a total cost of Rs. 20.2 crores will be

taken up to provide irrigation to a new area of 33,000 acres and to stabilise irrigation for 18,000 acres:—

- (i) Improvements to Veeranam tank and Vadavar Channel (South Arcot) ;
- (ii) Shenbagathope Reservoir (North Arcot) ;
- (iii) Doddahalla Reservoir (Dharmapuri) ;
- (iv) Siddhamalli Reservoir (Tiruchirappalli) ;
- (v) Uppar Reservoir (Tiruchirappalli) ;
- (vi) Sirumalayar Reservoir (Madurai) ;
- (vii) Poigai Anicut (Kanyakumari) ; and
- (viii) Koundiyandhi Reservoir (North Arcot).

In addition, the examination of four more schemes, namely, Noyyal reservoir (Coimbatore), Andiappanur Odai reservoir (North Arcot), Palar reservoir (Tiruchirappalli) and providing a supply channel to Gridhamal river will be completed quickly.

The ayacut of the Parambikulam—Aliyar Project will be increased by about 89,000 acres with the use of the additional water that will be available from the Nirar river. Supply will be made by turns every alternate year as is being done for the ayacut already localised. The additional area benefited will be about 24,000 acres in Pollachi taluk, 25,000 acres in Udumalpet taluk, 15,800 acres in Palladam taluk and 24,000 acres in Dharapuram taluk. The work on excavation of channels will be taken up immediately so that employment could be provided to the local population affected by drought and to extend irrigation benefits in the next season.

We have made a provision of Rs. 3.5 crores in 1975—76 for the Special Minor Irrigation Programme. In addition, a provision of Rs. 2 crores has been made for the accelerated minor irrigation programme and desilting-cum-reclamation schemes. The special scheme for the reclamation of ex-zamin tanks which was taken up in the current year will be continued in the coming year with a provision of Rs. 25 lakhs. I may point out that we have made a special effort to ensure that the various irrigation projects are concentrated and accelerated in the drought affected areas so that they can result in the provision of employment in the next 6 to 7 months. We expect to spend about Rs. 5.5 crores

from the Budget provisions for irrigation in the drought affected areas in 1974—75 and Rs. 12 crores from such provision in 1975—76.

Power—Ennore Generation to be doubled

Honourable Members are aware that the installed capacity for power in our State is the largest in any State in India, viz., 2254 MW. During 1975—76 one more 110 MW unit will be added at the Ennore Thermal Station. The Naduvattam diversion scheme in the Nilgiris will also be completed in the coming year and will contribute an additional 69 million units per annum of energy. Works on Kundah Fourth stage (110 MW), Suruliyar (35 MW) and Tuticorin thermal station (400 MW) are in progress. The Kundah IV stage scheme is expected to be completed in 1976—77 and Suruliyar and the first unit of Tuticorin are expected to be commissioned in 1978—79. **A special programme for improving capacity utilisation at the Ennore thermal plant in co-operation with the Bharat Heavy Electricals Limited has been taken up and it will be our endeavour in the next few months to double the generation of power from Ennore.**

Industrie—Aim at diversifying economic power

Our policy is that true socialism can be achieved only on the basis of an expanding role for the public sector. In order to exercise control over the private sector, we have also promoted a number of projects in the joint sector. We also believe in a strong co-operative sector and in the growth of small scale industries in order to diversify economic power.

The premier institution which is responsible for the promotion of major and medium industries in our State is the Tamil Nadu Industrial Development Corporation (TIDCO). In the last four years, TIDCO has initiated 37 projects which are designed to cover the gaps in our industrial structure in petro-chemicals, pharmaceuticals, chemicals, engineering and other industries. The total capital outlay in these projects will be of the order of Rs. 340 crores. They will generate employment for about 17,000 skilled and unskilled workers with many more thousands being benefited indirectly. In 1975—76, nine joint sector projects relating to fertilisers, chemicals, salt, television sets, cigarettes, nickel-cadmium cells and heavy castings are expected to go

on stream. The most important of these will be the joint sector fertiliser project at Tuticorin with an investment of Rs. 90 crores which will be the largest fertiliser plant in India. This project will be commissioned shortly. According to the allocation permitted by the Government of India, 60 per cent of the fertilisers produced in the Tuticorin plant will be distributed in Tamil Nadu.

I had announced in the last Budget our intention to nationalise Textools, LASCO Alloy Steels, Sakthi Pipes and Southern Structurals which are sick units being managed by Government. The draft legislation for this purpose has been sent to the Centre for approval. These units will be nationalised with the approval of the Legislature after concurrence is received from the Union Government.

The Tamil Nadu Small Industries Development Corporation (SIDCO) will take up a programme for the construction of 100 industrial sheds at a total cost of Rs. 1 crore in 1975—76. A provision of Rs. 20 lakhs as margin money has been made for this purpose in the Budget. The Tamil Nadu Small Industries Corporation (TANSI) will be taking up projects for the manufacture of mopeds and for the manufacture of machine tools in collaboration with the Hindustan Machine Tools Limited in the coming year. The State Industries Promotion Corporation of Tamil Nadu (SIPCOT) has sanctioned assistance to the tune of Rs. 9.8 crores under various schemes and has canalized a total investment of Rs. 73 crores with direct employment potential for over 12,800 persons. It is completing the development of the Ranipet complex and has taken up the development of additional industrial complexes at Hosur and Manamadurai.

Sugar Industry — Forestride

We have made significant progress in the development of the sugar industry in Tamil Nadu. **In the current year orders for plant and machinery for three new sugar mills at Vellore, Tiruppathur and Coimbatore have been placed for a total value of over Rs. 11 crores.** In addition, our co-operative sugar factories have taken up expansion programmes for a total value of Rs. 14 crores. In the last Budget I had announced our policy decision that new sugar factories in our State will be started only in the

Pride of Place to Welfare Schemes

public sector with share capital participation by cane growers. We hope to receive letters of intent shortly for 5 new sugar mills to be set up in accordance with this policy. It is a matter of satisfaction that sugar production in Tamil Nadu in the sugar year of 1973-74 (October 1973 to September 1974) reached a record level of 4.43 lakh tonnes which represents an improvement of 34 per cent over the previous year. I may point out that in order to encourage cane growers we are giving them a higher price than what is fixed by the Centre.

The recessionary trends in the textile industry as a whole coupled with general inflation has depressed the demand for handlooms and has resulted in the accumulation of stocks. We have arranged for a ways and means accommodation of Rs. 3 crores to the handloom sector through the Tamil Nadu State Co-operative Bank. We have also moved the Government of India for assistance for an additional amount of Rs. 3 crores to relieve the accumulation of stocks. I trust that their clearance to this proposal would be available soon.

Education continues to take the pride of place in budgetary allocations. Educational expenditure has risen in the last 8 years from Rs. 44 crores to Rs. 118 crores. We have also simultaneously pursued a number of measures for the qualitative improvement of school education. Nineteen high schools run by financially weak municipalities have been taken over and five more high schools will be brought under this scheme in 1975-76. There will be further expansion in the programme for converting existing high schools in the State into comprehensive high schools by the provision of courses for various technical and commercial courses. The Budget includes a provision of Rs. 14 lakhs for this purpose. In 1975-76, about two thousand additional teachers will be appointed. Honourable Members are aware that Government's contribution to the mid-day meals scheme has been increased in the current year from six paise to ten paise per pupil per day. The total budget provision in 1975-76 for this scheme is Rs. 4.5 crores.

In the last 8 years, the number of colleges offering Arts and Science courses has gone up from 105 to

183. The number of college students has increased from 94,000 to about 2,00,000 in the same period. I am glad to inform the House that the University Grants Commission has recently agreed in principle to our proposal for setting up a Technological University at Madras by upgrading the College of Engineering at Guindy and by including certain other technical institutions within the scope of the University.

Health Services

In the last 8 years, we have established 18 hospitals, 22 dispensaries and 194 Primary Health Centres. Bed strength has been increased by 2,185 in this period. 2,396 additional medical officers and 1,912 additional nurses have also been appointed in the last 8 years. The major thrust and emphasis in the Health sector will be on the aspect of qualitative improvement along with a continued increase in the number of beds in district and taluk headquarters hospitals. In 1975-76, we propose to absorb 123 doctors and 155 nurses in various hospitals.

The free eye-camp scheme inaugurated in June 1972 has been a success. As many as 6.36 lakh persons have so far been benefited under this scheme. 89,500 opera-

hospitals. Siddha wings will be established in 15 taluk and non-taluk headquarter hospitals. District Food Analysis Laboratories will be set up at Palayamkottai and Salem in order to detect food adulteration.

In the current year, 1,11,000 family planning operations have been performed in Tamil Nadu up to December 1974. From the inception of the family planning scheme, 18 lakh operations have been performed. On the average, we are giving an incentive of Rs. 100 per family planning operation as compared to Rs. 60 received by way of assistance from the Government of India. I wish to point out that the Government of India which is aware of the basic importance of Family Planning for releasing the fruits of development should meet this shortfall to encourage the State Governments to implement this important programme.

Welfare of Harijans and Backward Classes

This Government is deeply committed to the uplift of Harijans and Backward Classes. The outlay on the welfare of Harijans and Backward Classes in 1975-76 will be Rs. 16.69 crores as shown below:

	Non-Plan	State Plan	Centrally sponsored	Total
	(Rupees in crores)			
Harijan Welfare	6.41	3.97	0.50	10.88
Backward Classes Welfare.	5.17	0.64	..	5.81
Total ..	11.58	4.61	0.50	16.69

tions have been conducted in 219 camps and spectacles have also been supplied free under this scheme. The special fund for this scheme of Rs. 55 lakhs will be exhausted in the current year. However, the scheme will be continued in 1975-76 with a provision of Rs. 20 lakhs from the Budget.

In order to promote rural health, a third Medical Officer will be appointed in each of 100 Primary Health Centres. Immunisation of Pre-School children with triple vaccine will be implemented in 20 Primary Health Centres. Twelve bedded wards for ex-servicemen and their dependants will be constructed in each of 16 taluk hospitals. Dental clinics will be opened in 4 taluk

There are at present 555 hostels for Harijans and 231 hostels for Backward Classes. The outlays indicated above include the provision of Rs. 8.54 lakhs for the opening of 20 new hostels for Harijans and 20 new hostels for Backward Classes in 1975-76. The Harijan Housing and Development Corporation is engaged in the challenging task of building one lakh houses for Harijan families in rural areas. Fifteen thousand houses will be completed under this scheme in the current year. We have already spent over Rs. 3.5 crores for this purpose. This scheme will be accelerated in the coming year with provisions made in the Budget and support from financing institutions. Fifty Bal-

wadis will be constructed by the Corporation in the current year in the Harijan Colonies. The Harijan Housing and Development Corporation will also implement a programme for the construction of 100 hostels for Harijan students and 50 hostels for students belonging to Backward Classes in 1975-76. The total provision in 1975-76 for scholarships and boarding grants for Harijan students and students from Backward Classes in hostels will be Rs. 6.56 crores.

As against a budget provision of Rs. 15 lakhs for the acquisition and assignment of house-sites for Harijans in the current year, a revised provision of Rs. 48.5 lakhs has been made. The initial provision for this purpose in 1975-76 will be Rs. 25 lakhs. We have provided Rs. 82 lakhs in 1975-76 for the scheme of electrification of Harijan colonies. Out of a total of about 25,000 such colonies, 24,000 colonies have been electrified by the end of December 1974. The lack of proper pathways to burial grounds in Harijan colonies has been a felt need for a long time in our villages. This social disability should not be tolerated any longer. In addition to giving priority for pathways under other schemes, we are taking up a special scheme for providing such pathways in 1975-76 with an initial provision of Rs. 30 lakhs. In the first phase, this scheme will be taken up in 6,800 villages where land is readily available.

Slum Clearance

The Tamil Nadu Slum Clearance Board has so far constructed 1,5102 tenements since its formation in 1970. The Slum Clearance Board will incur a total expenditure of Rs. 3.5 crores financed from the Budget and from HUDCO in 1975-76. In addition, Rs. 45 lakhs will be spent on various programmes for environmental improvements in the slum areas of the city. The Housing Board will incur an expenditure of Rs. 40 lakhs for the construction of tenements in slum areas in district towns. It is a matter of satisfaction that we have been able to keep up this programme with undiminished vigour despite our financial difficulties and the lack of adequate assistance from the Government of India for the clearance and redevelopment of slum areas.

Roads

We have made a provision of Rs. 28.74 crores for the construction and maintenance of road works in 1975-76. The provision of all-

weather link roads for villages with a population of 1,500 and above and fair-weather link roads for villages with a population of less than 1,500 are two major programmes we have initiated. Rs. 7.5 crores have been set apart for the schemes in the current year and in 1975-76. The provision for roads also includes a grant of Rs. 2.19 crores to Panchayat Unions for improvements and maintenance of local roads. In addition, we have provided Rs. 75 lakhs to Panchayat Unions under the link roads programme. A sum of Rs. 60 lakhs has been provided for roads in the sugarcane growing areas around sugar factories. The roads programme will be of special importance for providing employment in the drought affected areas.

The bridges across the Cauvery at Tiruchirappalli and Bhavani, the Palar bridge at Vellore and the formation of Kodaikanal-Palani road are the important works to be completed in 1975-76.

Transport

In pursuance of the policy of nationalising the entire passenger transport industry in the State, 4,804 out of the 9,938 stage carriages in the State have been brought under nationalisation. The pace of nationalisation can be expedited only after the Supreme Court's decision in the appeal filed by the State Government is known. The Government have decided to take over all contract carriages including tourist vehicles (known as omnibuses) in order to provide an efficient and economical road transport service. A scheme for this purpose has already been published.

Water Supply

The Tamil Nadu Water Supply and Drainage Board (TWAD), formed in 1970, is in charge of investigation and execution of water-supply and drainage schemes throughout the State. In 1975-76, a provision of Rs. 10.32 crores has been made in the Budget by way of loans and grants to the TWAD. This will be supplemented by a loan of Rs. 5 crores from the Life Insurance Corporation of India. The Board will soon be completing the provision of water-supply for the Tuticorin industrial complex at a cost of Rs. 4.7 crores with a capacity of 20 million gallons per day. Work has been started on the Siruvani water-supply scheme for Coimbatore and an immediate programme for bringing three million gallons per day for Coimbatore town has been sanction-

ed at a cost of Rs. 1.71 crores. This scheme of which the first phase has already been put into operation is expected to be completed in 1975. A sum of Rs. 14.85 crores has been spent on the Veeranam project upto 31st March 1974 and a provision of Rs. 7.7 crores has been made in the current year. In the meanwhile, we have sanctioned a scheme for bringing water from the Palar bed to Madras City utilising the pipes laid for the Veeranam scheme. This scheme will result in three million gallons of water a day at a total cost of Rs. 1.12 crores.

The TWAD will be providing water-supply in 646 scarcity villages and 1041 endemic villages in 1974-75. As part of the drought relief programme, a special assistance of Rs. 2 crores has been released to the Board for drinking water-supply works in the drought affected areas in the current year. In 1975-76, a sum of Rs. 3.25 crores has been provided for drinking water-supply in rural areas. In addition, 1,500 bore wells will be dug with the help of the UNICEF in 1975-76. These provisions are in addition to Rs. 1.9 crores to be spent through Panchayat Unions for rural water-supply in 1975-76. Out of the various provisions for rural water-supply, we expect that Rs. 6.25 crores will be spent in the drought affected areas in the current year and in 1975-76.

Social Welfare

The various welfare measures which have been initiated from year to year by our Government for the most vulnerable sections of society have won appreciation all over India. We have so far undertaken schemes for the rehabilitation of leprosy affected beggars, provision of eye camps to the blind, replacement of hand-drawn rickshaws by bicycle rickshaws and for the rehabilitation of physically handicapped. These schemes have received the full support and co-operation of the public who have contributed Rs. 3.13 crores for these schemes. These funds are administered by the Finance Department and are audited like other Government funds. In 1975, we will take up a new scheme for taking care of destitute widows and orphan children. The details of the scheme are being worked out. An important new scheme in the Budget is the provision of various facilities such as land reclamation and irrigation wells in the rehabilitation homes for leprosy beggars so that they could be gainfully employed.

The main purpose of these schemes is to draw the attention of society to the problems that affect the poorest of the poor and to make a beginning in giving them a better life. Government are committed to bear the continuing expenditure on the schemes initiated every year and to expand such facilities so that solutions are found for tackling these social problems.

New Schemes To Benefit Weavers

We began the slum clearance and redevelopment scheme in 1970 and last year we initiated the scheme for providing free housing for Harijan families in rural areas through the Harijan Housing and Development Corporation. I take pride and pleasure in announcing yet another socialistic scheme for providing houses to one of the poorest sections of society. Our fisherfolk live in huts at the mercy of the wind and the sea. In order to provide them with houses, we will begin a new scheme similar to the Harijan Housing Scheme in the coming year. Under this scheme, 5,000 houses will be taken up in 1975-76 in the first phase at an estimated cost of Rs. 2 crores.

With its deep commitment to social uplift and social welfare, our Government has also been engaged in extending the concept of social security. Since we started implementing the Family Benefit Fund for Government employees in 1974, about 1,000 families have been benefited and have received a measure of solace and comfort from Rs. 10,000 which is being given under the scheme. Similarly, we have also introduced the Tamil Nadu Social Security Scheme which will be of widespread benefit to the public at large.

In continuation of these schemes, I have great pleasure in announcing that we have decided to introduce a scheme called "The Co-operative Handloom Weavers Savings and Security Scheme" for the benefit of handloom weavers in the co-operative sector. This scheme will be implemented with the co-operation of the Life Insurance Corporation of India. Under this scheme, each weaver in the co-operative sector can make a contribution of 6 paise per rupee in his wages to his Savings and Security Fund. This contribution will be supplemented by a contribution of 3 paise per rupee of wages by the Government. It is not necessary for the co-operative society to make any contribution. If the weaver happens to die before

the age of 55, an additional amount equal to the accumulation in his Savings and Security Fund from his own contribution and the Government contribution will be paid to his family. In addition, interest will be paid on the amount contributed by the weaver. For example, a weaver with a monthly wage of Rs. 100 will pay a contribution of Rs. 6 per month. The Government contribution will be Rs. 3 per month. If he happens to die after 20 years, his family will get Rs. 2,160 being the weaver's contribution and the Government contribution as well as an equal amount of Rs. 2,160 making in all a total of Rs. 4,320. In addition interest will also be paid on the amount contributed by the weaver. Tamil Nadu continues to be a pioneer in initiating social security schemes in the whole of India. I wish to express my gratitude to the Life Insurance Corporation for extending their co-operation in this effort.

Benefits to Government Servants

This Government has always had the welfare of its employees, teachers in aided institutions and the employees of local bodies at heart. Hon'ble Members are also aware that we have extended to them various concessions and benefits from time to time.

Retirement benefits to Government employees have been significantly increased by the merger of the whole of the dearness allowance given to them up to 1st February 1975 with basic pay for purposes of calculating pension and gratuity. We have also given an additional dearness allowance of Rs. 5 per month with effect from February 1975 to all Government pensioners. The scheme for remitting pension through money-order up to Rs. 300 of pension being implemented in seven districts will be extended throughout the State in 1975-76 at a cost of Rs. 6 lakhs to Government.

We have provided Rs. 75 lakhs in the current year for house building advances. We have decided to double this provision to Rs. 1.5 crores in 1975-76 in order to expedite the sanction of house building loans.

I am also happy to announce that with effect from 1st April 1975 the scheme of City Compensatory Allowance which is now in operation in Madras City, Madurai and Coimbatore will be extended to Tiruchirappalli and Salem urban areas at a cost of Rs. 35 lakhs. The City

Compensatory Allowance Scheme will thus cover all the major towns in our State.

We have increased the honorarium for Village Officers by Rs. 7 per month with effect from February 1975. I am happy to announce that with effect from April 1975 the Family Benefit Scheme will also be extended to Village Officers who are below the age of 55, benefiting thousands of Village Officers.

The pressing and vast demands on the budget for development, drought relief and implementation of prohibition are such that we face substantial revenue deficits both in the current year and in 1974-76. We have repeatedly undertaken measures for additional resource mobilisation but the extent to which and the frequency with which we can levy taxes in order to meet wage increases is limited. It is natural and understandable that State Government employees should press for the same level of emoluments which Centre is giving to its employees. However, the Centre has neither come forward to adjust its pay scales to those of State Governments nor has it been willing to extend financial assistance to the States for removing disparities in the emoluments of comparable categories of employees. The problems we have faced for many years in this matter have recently been made worse by the impounding of additional wages and additional dearness allowance. We had requested the Centre to at least exempt employees who draw less than Rs. 500 per month as emoluments from the scope of this legislation if they could not altogether repeal it. The Union Government has recently conveyed its inability to accept this suggestion also.

We had announced 6 instalments of additional dearness allowance to Government employees, employees of local bodies and teachers in aided institutions on the basis of the Central formula in January, following the recommendations of the Dearness Allowance Committee. Since then, the Central Government have extended three more instalments of additional dearness allowance to their employees the representatives of Employees' Unions have also represented to me that the dearness allowance increase recently sanctioned to them has not been adequate. Against this background, we have now decided to revise the orders issued in January on the following basis.

The total dearness allowance for Government employees upto a pay of Rs. 300 will be fixed at 36 per cent and for a pay above Rs. 300 at 27 per cent corresponding to nine instalments. The dearness allowance which was in force for our employees on 1st January 1973 when the Central pay revision took place will also be taken into account along with pay for purposes of calculating the new dearness allowance. The additional dearness allowance will be the difference between the total dearness allowance calculated on the basis outlined above and the dearness allowance of Rs. 55 or Rs. 70 which was in force prior to October 1974. The additional dearness allowance will be subject to a minimum benefit of Rs. 20 per month and a maximum benefit of Rs. 30 per month. This decision will apply to teachers in aided institutions and employees of local bodies also and will cover a total number of about 7 lakh employees. It will be implemented with effect from 1st February 1975 in modification of the decision announced earlier at the time of Pongal.

The decision now announced will cost the Government an expenditure of Rs. 24.5 crores, as compared to the cost of Rs. 12 crores, which we had accepted earlier on account of dearness allowance increases and other benefits to employees. I wish to point out that low-paid employees such as last grade Government servants will be specially benefited by the minimum increase of Rs. 20.

Revised Estimate, 1974—75

The Budget Estimate, 1974—75 anticipated a receipt of Rs. 480.69 crores including the taxation measures introduced in March 1974 as against an expenditure of Rs. 483.25 crores leaving a Revenue deficit of Rs. 2.56 crores. As against this, the Revised Estimate for the current year anticipate a deficit of Rs. 11.83 crores. This is mainly on account of the decreased receipts under Central Assistance for the State Plan and the loss of revenue due to remission of Land Revenue in drought affected areas, and the increase in expenditure mainly on account of the provision of Rs. 12 crores for drought relief works, provisions for interim relief and additional Dearness Allowance and the implementation of special schemes like the Accelerated Minor Irrigation Programme and Fair Weather Roads Scheme during the course of the year.

THE DEFICIT

The Budget Estimates for 1975—76 provide for anticipated receipts of Rs. 501.4 crores and an expenditure of Rs. 537.5 crores in the Revenue Account, indicating a revenue deficit of Rs. 36.1 crores. We anticipate an increase in receipts from Sales Tax to the extent of Rs. 26.4 crores. At the same time, there is a drop in Excise Revenue to the extent of Rs. 22.1 crores between the Revised Estimates for 1974—75 and the Budget Estimates for 1975—76. Abolition of racing, remission of Land Revenue, fall in the receipts from Electricity Taxes due to their merger with the Electricity tariff together result in a reduction of revenue. On the expenditure side, Rs. 20 crores for Drought Relief Works has been provided. If assistance from the Government of India is available in full measure for drought relief works, the revenue deficit will be substantially bridged. A capital outlay of Rs. 41.70 crores, Loans and Advances of Rs. 42.13 crores and repayment of Rs. 42.35 crores to Central Government have been provided for in the Budget Estimate. Including the revenue deficit of Rs. 36.1 crores, the total deficit under all accounts is Rs. 2.66 crores.

THE NEW LEVIES

In the context of the need to keep up the pace of development with adequate provision for drought relief and additional dearness allowance to Government employees and having regard to the loss on account of prohibition we are forced to undertake certain measures for additional mobilisation. It has always been our policy to levy taxes in such a manner that it does not affect the common man. Our present proposals have also been formulated from this point of view.

It is proposed to make a marginal adjustment in single point sales tax from 5.5 to 6 per cent on coffee, chicory, french coffee and tea in line with the rates prevailing in most other neighbouring States. In the last Budget, 59 items were brought over from multi-point to single point sales tax. At present the multi-point rate is 4 per cent in each stage. Accordingly, we

have decided to adjust the single point sales tax on oil cakes, vegetable oils, machine-made matches and pulses and grams from 3.5 to 4 per cent. However fertilisers, pesticides and insecticides will continue to bear only the single point sales tax of 3.5 per cent without any change in order to benefit agriculturists. At present, electrical goods, machinery, instruments and apparatus are subject to a single point sales tax of 9 per cent. A higher rate of 12 per cent will be adopted for such electrical goods like washing machines, grinders, mixers, blenders which are used by the more affluent sections and electronic instruments such as index card punching, cash registers etc. used in big concerns. Other items such as bulbs, fans, tubelights etc. will continue to bear the present rate of 9 per cent. The present single point sales tax of 9 per cent on scents and perfumes will be increased to 12 per cent. The present single point sales tax rate of 2 per cent on cotton and cotton yarn will be increased to 3 per cent which is the rate in most other neighbouring States. Prawns, lobsters, crabs, frogs and froglegs are mostly processed and exported to foreign countries. They are subject to a single point sales tax of 5 per cent in Kerala. It is, therefore, proposed to levy a single point sales tax of 5 per cent on these items at the point of last purchase with exemption from tax and registration to dealers whose total turnover does not exceed Rs. 5,000 per annum.

Stamp duties are now subject to an additional surcharge. It is proposed to merge the additional surcharge with the basic duty and also to make marginal adjustments with a view to rationalisation and facility in calculation.

It is estimated that the measures outlined above will result in an additional revenue of Rs. 6 crores per annum. Accordingly, the revenue deficit for 1975—76 will be reduced to Rs. 30.1 crores and the overall deficit to Rs. 20.6 crores. In the recent discussions on the Annual Plan held in Delhi, I have personally impressed on the Central Government the need for special assistance for drought relief and an increase in Central Plan assistance in order to bridge the gap in 1975—76. I trust that early and favourable decisions will be taken by the Centre on these requests.

Series of Concerted Relief Measures at Lightning Speed

The following is the Text of Governor's Address to the Legislature on 20-2-75.

This session of the Legislature is being convened when we are facing an extraordinary situation created by the almost total failure of the north-east monsoon in Tamil Nadu. The south-west monsoon itself was delayed and inadequate over large parts of the State. Consequently, the inflow of waters into our major reservoirs such as Mettur, Bhavani Sagar and Periyar was reduced and the opening date of many of the major irrigation systems had to be postponed. As far as the north-east monsoon is concerned, rainfall has been the lowest in the last 100 years. It is only 35 per cent of the normal rainfall that we have received this season. As a result of the poor rainfall, most of the irrigation tanks have received inadequate supply and this in turn has resulted in damage to crops which depend upon rain-fed sources.

There has been some shortfall in the Kuruvai crop. The Thaladi and Samba crops have been particularly affected. It has been estimated that as against an area of 39 lakh acres sown under Samba last year, the area sown this year is likely to be of the order of only 29 lakh acres. Last year we were able to produce about 56 lakh tonnes of rice, 15 lakh tonnes of millets and 2 lakh tonnes of pulses. In the current year, the latest estimates are a production of 43 lakh tonnes of rice, about 7 lakh tonnes of millets and about 1 lakh tonnes of pulses. The overall deficit in rice, millets and pulses is, therefore, likely to be of the order of 2 million tonnes which is about 30 per cent of our normal production.

The consequences of such a severe and unprecedented drought are bound to be pervasive. Apart from the food deficit, we face a shortage of drinking water for people and for cattle, shortage of fodder and scarcity of seeds for the next agricultural season. In this situation, a number of concerted measures will have to be taken. Employment opportunities, particularly for landless labour and

To Combat Unprecedented Drought

marginal cultivators, will have to be created and sustained in a widespread manner throughout the State in order to provide them with purchasing power. The provision for purchasing power will have to be matched with availability of foodgrains at fair prices. Special steps will have to be taken to safeguard a minimum supply of drinking water both in rural and urban areas. Cattle will have to be taken care of by the supply of fodder in areas where it is required most.

Series of Drought Control Measures

Government have already taken a series of measures to tackle the Procurement in the kuruvai season has been satisfactory and we have succeeded in procuring about 150,000 tonnes of rice. This was largely made possible by the provision of a reasonably remunerative price to the producer and a well-organised effort on the part of Government's procurement agencies. Along with larger procurement, the public distribution system has also been enlarged. Apart from Madras City, Coimbatore town and Kanyakumari district which were being covered in past years, fair price shops have been opened at a number of places in other districts. The enlarged distribution system has resulted in about 55,000 tonnes of rice on an average per month being sold through retail outlets at a fair price in various parts of the State, in addition to large quantities of wheat and coarse grains.

In the Samba season, it has been decided that procurement will take place at two levels. Statutory procurement under the levy system will be undertaken by the Tamil Nadu Civil Supplies Corporation, Co-

operatives and Food Corporation of India at prices which have already been notified for this purpose. A special incentive bonus of Rs. 10 per quintal of paddy will be given to producers under the levy system besides a transport subsidy of Rs. 5 per quintal to ryots who deliver paddy at direct purchase centres. In addition, Co-operatives will undertake open market purchase of paddy in surplus areas at a more remunerative price to the producer. Private wholesale trade will not be allowed to operate in such surplus areas. Our target of procurement will be four lakh tonnes of rice. About 3 lakh tonnes of coarse grains are also proposed to be purchased from other States. To supplement our own procurement for public distribution, we have requested the Government of India to allot one lakh tonnes of foodgrains per month for the next 10 months. We are grateful to the Government of India for their immediate response in increasing the monthly allotment to Tamil Nadu to 50,000 tonnes of wheat. We hope that this allocation will be increased in future months and substantial quantities of rice will also be made available, so that an overall allotment of one million tonnes of foodgrains will be made to Tamil Nadu before October 1975.

Concessions to the Affected Populace

Government have announced a series of concessions in order to provide immediate relief and assistance to agriculturists. In the drought affected areas, remission has been granted for land revenue, local cess and surcharges. The collection of arrears of land revenue and of loan dues to Government has been postponed to the next fasli. Short-term loans given by the Co-operatives will be converted to medium term loans so that it will be possible for the Co-operatives to extend short-term production credit to affected agriculturists once again in the next season without insisting on the repayment of past loans. An Ordinance has been passed to stay all Court proceedings for recovery of

private debt for a period of one year. Full power supply is being made available to agriculture despite the overall shortage of power. A subsidy of Rs. 1,000 per pumpset has been extended for the purchase of diesel pumpsets and diesel in adequate quantities is being made available for agricultural pumpsets.

Tamil Nadu has been in the forefront of all the States in India in the matter of rural electrification both for domestic and agricultural consumption. There are at present 7 lakhs of electric pumpsets in our State. This is about one-third of the total number of electrified agricultural pumpsets in the whole of India. In fact, but for the very large number and wide distribution of tube wells served with electric power in our State, it would have been very much more difficult for us to handle the failure of rains in the current year. In 1974-75, we propose to give connections to 30,000 pumpsets. A massive programme for connecting an additional 60,000 pumpsets in 1975-76 will be launched. All steps are being taken to complete this programme in time.

Rs. 55 Crores Relief Measures

I had already referred to the need for creating employment opportunities and for providing adequate purchasing power to landless labour and marginal cultivators who have been most affected by the drought. A detailed district-wise assessment of the situation has been made in this regard. Based on such an assessment, Government have initiated a massive drought relief programme with an outlay of Rs. 55 crores in the next 9 to 10 months throughout the State. The projects and programmes to be taken up with this provision will consist of rural drinking water-supply schemes, minor, medium and major irrigation works, desilting of and special repairs to tanks, soil conservation works, formation of new roads, improvements to existing roads and provision of rural amenities and works carried out through Panchayat Unions. The Drought Prone Areas Programme in Ramanathapuram and Dharmapuri districts will also be significantly enlarged to meet the pressing demands generated by the drought.

We are taking special care to ensure that the various works planned under the drought relief programme are labour-intensive so that their employment content is maximised. On the average, about 65

per cent of the cost of these works will be spent on wages. About 61 lakhs of persons will be given employment in the next 9 months. A detailed plan of action for carrying out these works is being drawn up so as to distribute them geographically in such a manner that relief is closely linked to the emerging needs of various parts of the State. Almost most all villages in the drought affected areas will benefit from these relief works. The works will also be evenly phased out over the next 9 to 10 months in order to maintain continuity of employment. The provision of purchasing power through these means will be matched by the opening of adequate outlets from which it will be possible to purchase food grains at a fair price.

Our objective in the formulation and implementation of this programme will be to ensure that drought relief outlays are used largely for works of a capital nature. Only then can drought relief lead to the building up of lasting assets like drinking water-supply, irrigation and communications which will serve us in good stead in future years. It is from this point of view that the existing provisions in the Annual Plan for rural works will be diverted, concentrated and accelerated to the maximum extent possible in the drought affected areas. We hope that it will be possible to finance about Rs. 25 crores of the expenditure required on drought relief from such normal Plan provisions. We have requested the Government of India for special assistance for the balance of Rs. 30 crores. We are grateful to the Centre for responding to this request with a special assistance of Rs. 7.5 crores for the current year. Government had released a first instalment of Rs. 3 crores for drought relief works outside the Plan. This has been followed up by a second instalment of Rs. 2 crores and a third instalment of Rs 5 crores. Rs 10 crores have thus been released so far for drought relief works outside the Plan in the current year.

Satisfactory Agricultural Development

In the long-term, it is the increase in agricultural production, and particularly higher production of foodgrains, that has to provide the lasting answer for high prices and scarcity. Over a period of years, agricultural development in Tamil Nadu has been quite satisfactory. In the matter of foodgrains we

reached the level of 73 lakh tonnes in 1973-74 as against the Fourth Plan target of 74 lakh tonnes. In oilseeds, the actual performance was 12.2 lakh tonnes as against a target of 11.5 lakh tonnes. In cotton, production in 1973-74 was 3.4 lakh bales as against the target of 4 lakh bales. In sugar-cane, the achievement was 13.7 lakh tonnes of gur as against a target of 11 lakh tonnes of gur. A good production potential in agriculture has thus been established in our State over a period of years. Our farmers have the willingness and ability to adopt high-yielding seeds, use of chemical fertilisers and pesticides and improved agricultural practices. We also have the infrastructure for providing credit, extension and other agricultural inputs in adequate quantity and in a timely manner to our farmers. However, despite large scale exploitation of ground water, we are still heavily dependent on rain as also on the availability of chemical fertilisers which are allotted by the Government of India. In the current year, for instance, we need 3.25 lakh tonnes of nitrogen. The allotment of fertilisers from the Government of India has, however, been only 2.56 lakh tonnes of nitrogen as against which anticipated receipts are only of the order of 1.70 lakh tonnes. In the context of the drought, I would once again appeal to the Government of India for an adequate and timely allotment of chemical fertilisers so that the potential for foodgrains production is utilised to the fullest extent possible.

Agricultural production has to be intensified in the future months in view of the drought situation and several steps have been taken in this regard. A number of concessions and facilities have been provided to encourage farmers to grow a third crop during the summer months. They have been assured adequate quantities of fertilisers and pesticides along with credit facilities from the Co-operatives. They will also be provided with an assured supply of power. The third crop will be exempted from levy procurement. I trust that these concessions and facilities will result in a large number of farmers coming forward to harvest a third crop wherever it is possible to do so.

We are taking a number of specific steps to ensure that agricultural production in the coming season is safeguarded. As much as Rs. 60 lakhs have been provided for the procurement of seeds which will be

required by farmers for the next season. We are providing Rs one crore for the purchase of drilling equipment and explosives for ground water programmes through-out the State. In addition, an emergency scheme has been sanctioned for supplementing the availability of water in the Grand Anaicut Canal from ground-water sources to benefit areas at the tail end.

Protected Water Supply Schemes

The drought has also cast its shadow on the drinking water position in urban areas. As far as Madras City is concerned, additional financial assistance of Rs. 1,05.5 lakhs has been made available to the Corporation for sinking 4,000 masonry wells and 5,000 tube wells and for increasing the fleet of lorries to 50 and number of tanks to 800. The Tamil Nadu Water Supply and Drainage Board has implemented a number of Water Supply Schemes, both for urban and rural areas. In the Fourth Plan a total expenditure of Rs. 46 crores was incurred for the purpose. After the formation of TWAD in 1971, an expenditure of Rs. 19.8 crores has been incurred. There is now protected water-supply in the two Corporations, 83 Town Municipalities, 5 Municipal Townships, 8 Panchayat Townships and 81 Town Panchayats serving about 65 per cent of the urban population in Tamil Nadu. In the current year, 25 Urban Water Supply Schemes are expected to be completed and schemes in 112 towns in the State are in various stages of execution. As far as rural areas are concerned, TWAD will be providing water-supply to 634 scarcity villages and 1,041 endemic villages in 1974-75. An allocation of Rs. 4.5 crores has been made for this purpose. In addition, 1,500 bore wells at a total cost of Rs 50 lakhs will be constructed with the help of the UNICEF. Measures have also been taken to expedite the Veeranam Water Supply Scheme by increasing the rate at which pipes are manufactured and laid. This project is in an advanced stage and it is hoped that its benefits will be available in the first half of 1976.

Vulnerability of the Power Situation

The drought has once again drawn attention to the vulnerability of the power situation in Tamil Nadu which is still heavily dependent on hydel power. Out of the

total installed capacity of 2,254 MW in the State, 1,224 mega watts are based on hydel sources. We have almost fully utilised our water resources in Tamil Nadu. We are far away from the sources of coal. It is, therefore, clear that future expansion in power generation has to be based on nuclear sources and lignite which is available within the State. It is in this context that we are pressing the Government of India to expedite the commissioning of the Kalpakkam Nuclear Project. The expansion of this plant with the addition of a third unit with a capacity of 500 MW should also be initiated without further delay. We have also proposed a second nuclear power station around Tuticorin with an installed capacity of 1,000 MW. I trust that the Government of India will expedite decisions in this regard.

It is also necessary for the Centre to go ahead without further delay with the second mine cut at Neyveli which can feed a second thermal station with a capacity of 1000 M.Wt. This will be a long gestation project which might take 7 to 8 years for completion. It is, therefore, all the more necessary that there should be no further delay in initiating the preparatory work. The continued postponement by the Government of India of major projects which are needed for the long term viability of the industrial and agricultural future of the State is a matter which cannot but cause deep concern. In the face of short-term difficulties, we should not lose sight of the horizon of long-term development and growth. It may appear that a particular project is too massive and the benefits expected from it are too distant in the future for the initial decision to be made now. However, experience throughout the country in the last two decades of Planning has amply demonstrated that in crucial sectors such as power, generation and supply should be constantly ahead of demand. A bold approach in this core sector of development is, therefore, necessary. I trust, that such a decision will be taken without further delay in initiating work on the second mine cut in Neyveli so that we are not found wanting, ten years from now in not having made adequate provision for the development and growth of Tamil Nadu.

I would now like to refer to some of the areas in which we need sympathetic understanding and urgent assistance from the Union Government. Foremost among our re-

quirements is the need for supplementing our own vigorous procurement programme with timely and adequate allocations of foodgrains in order to maintain an adequate public distribution system. Against an expected deficit of 2 million tonnes in internal production, our request for one million tonnes of foodgrains for the next ten months cannot by any means be considered to be too high a demand. In past years, whenever it has been favoured with a good crop, Tamil Nadu has voluntarily come forward to share its surplus with other States in India. Similarly when we are faced with a deficit situation today neighbouring States such as Andhra Pradesh which have a surplus are willing in principle to give us assistance provided that the necessary clearance is forthcoming from the Centre. According to present indications, the crop is likely to be very satisfactory in most other parts of India. The Government of India also have a large import programme with which they should be able to supplement internal availability of foodgrains. We are, therefore, confident that Government of India can assist Tamil Nadu and surely find a way to ensure that the minimum needs of this State are fully met in the months to come. We have been assured by the Centre that they fully share our concern in this matter and I hope that this assurance will be translated into an increased allocation of foodgrains and of rice, to the maximum extent possible, to our State.

I had referred earlier to the fact that we have approached the Centre for an assistance of Rs. 30 crores for undertaking drought relief works. We hope that the Centre will follow up their assistance of Rs. 7.5 crores in the current year with the balance in 1975-76. According to the arrangements introduced as a result of the report of the Sixth Finance Commission, the special assistance programme for taking care of natural calamities has been discontinued. Instead, each State is expected to make an annual contribution to a Fund for the relief of natural calamities and to use this Fund to meet unforeseen natural calamities. Accordingly, as recommended by the Finance Commission, we have made a contribution of Rs. 1.52 crores to the Fund in the current year. Unfortunately, droughts, floods and other natural calamities do not respect the niceties of financial formulae and do not wait for such funds to be

built up in an orderly manner before they make their presence felt. An extraordinary development of this kind will, therefore, necessarily have to be met by special measures. We hope that the Centre will take a practical approach to this problem and provide us with assistance which can be repaid over a period of years so that the development and welfare programmes in our State do not have to be cut because of the drought. Indeed, the needs of drought relief would themselves require an enhancement in the Plan provisions for a number of rural development schemes. It would, therefore, amount to a double punishment if normal development receives a set-back because of the drought.

Emergency Production Programme

In the present situation, we have also to take up a number of emergency production programmes which will increase the availability of water for agriculture. The enlargement of the normal programme for electrification of pumpsets from 30,000 pumps per annum to 60,000 in the coming year is the most important of these. This programme will need an additional allocation of Rs. 10 crores for the power sector and we hope that such programmes would also qualify for special assistance from the Centre.

It has been a matter of the greatest satisfaction that total prohibition has been reintroduced throughout the State with effect from 1st September 1974. Prohibition is also a Directive Principle of State Policy enshrined in the Constitution of India. Unfortunately, for purely technical reasons, the Sixth Finance Commission did not take into account the loss to the State revenues that would arise from the introduction of prohibition. We have estimated that this loss will amount to Rs. 234 crores in the Fifth Plan period, i.e., before the award of the next Finance Commission could come into force. The Government of India had a scheme between 1969 and 1974 under which they used to compensate 50 per cent of the loss to States which introduced prohibition. We have moved them to revive this scheme and to at least partially compensate Tamil Nadu which has embarked on this bold measure. It is necessary for the Centre to come to the assistance of States at least for a limited period before the

States can redress their ways and means position through their own efforts.

It is an anomaly that despite rising expectations and rapidly rising costs, Central assistance for Plan Schemes has remained constant in the last two years. We also understand that there is likely to be no increase in Central assistance to States in the coming year. This has led to a situation where the entire tempo of development has to be kept up through the internal effort of State Governments whose resources and fiscal powers are severely limited. The responsibilities of State Governments are rapidly increasing from day to day and it is unrealistic to have a system of devolution of development assistance which is becoming totally ineffectual. I would appeal to the Centre to take serious and urgent notice of this anomaly and to suitably increase Plan assistance to all the States in the coming year.

One other aspect in which Tamil Nadu has a special burden to carry arises from the fact that Madras City is one of the major metropolitan centres of India. It serves not only our State but a large hinterland for which it is the shipping and commercial centre. The needs of this City should, therefore, legitimately be met as a co-operative enterprise by the Centre and the State. Assistance from Metropolitan Development Funds available with the Centre is being given to other major cities such as Calcutta and Bombay. The requirements of water supply, housing, slum clearance, communications and transportation in the city are of such a stupendous magnitude, that massive and urgent attention should be given to them in time. Here again, we hope that the Centre would take an imaginative and sympathetic approach and come to our assistance in tackling what are after all national problems.

If I have touched at some length on the areas in which the co-operation and assistance of the Centre is required, it is not because that I wish in any manner to minimise the many ways in which we should carefully conserve and increase our own resources for development and drought relief. It is in fact in the context of our own prudent financial approach that we feel we have a special claim for consideration by the Centre in times of need. The Government has initiated a number of measures for achieving econo-

mies in administration. We have also had an excellent record in the additional mobilisation of resources both through taxation and by way of mobilising private savings. Our State has once again been a pioneer in this field by introducing the Tamil Nadu Social Security Scheme, 1974 which is designed to mobilise individual savings from large numbers of people to provide them with social security while, at the same time, promoting social investments. I would appeal to all Members of the Legislature to popularise this scheme which aims at benefiting the investor and the State alike.

We are now passing through difficult times both in the national sphere and in our own State. We however, face the situation with the firm confidence that we shall overcome the present difficulties and emerge from them with full success and added strength. In 1969, we had the experience of facing a drought and three years later in 1972, we faced a serious flood. We have tackled these situations successfully and we shall do so again.

The paramount needs of the hour are unity and understanding among all sections of the people. Although the coming year is a pre-election year, I am sure that Members of all political persuasions will agree that food is beyond politics and will come forward with their full co-operation in meeting this challenge. We are a proud and ancient people with great traditions. I am sure that everyone of us will wholeheartedly co-operate with the Government in its efforts to meet the various needs of the people throughout the State in the months ahead. I would add a special word of appeal to the employees of the State Government, at all levels, to work with total dedication in this hour of need.

I look forward to your deliberations in the ensuing session. I have no doubt that they will be conducted with a high sense of duty and responsibility and in our customary spirit of cordiality and mutual tolerance for which we have the admiration of our countrymen. Sobriety and an anxiety to give and take have been the cornerstone of our public life. This is an asset for any developing society. I hope and pray Tamil Nadu will continue to give a lead in making democracy a mode of living.

MEMORABLE ACHIEVEMENTS OF T W A D IN THREE YEARS

On the auspicious Tamil New Year's Day, the 14th April, 1971, the Tamil Nadu Water Supply and Drainage Board was born. Within a short span of time a record performance has been accomplished for which one can feel justifiably proud of. As the Chairman of the Water Supply and Drainage Board connected with its activities from its inception it is a proud privilege to set forth the achievements on this happy occasion.

The task of providing the two inevitable interdependent basic amenities, namely potable piped water supply and efficient system of waste water disposal for the protection and promotion of public health is the primary responsibility of any popular Government. The importance of providing these two basic amenities to the urban and rural areas of our State was engaging the attention of our beloved Chief Minister and to achieve this objective within the shortest possible time the TWAD Board was constituted under the Act of State Legislature. Since then under the dynamic patronage of Dr. Kalaignar and able leadership of our Honourable Minister for Health, this autonomous body is steadily and significantly progressing in the field of providing water supply and sewerage

facilities to the millions of urban and rural population in the State of Tamil Nadu.

Prior to Independence, water supply was available in 47 towns in the State benefiting a population of 41 lakhs. The investment on urban water supply schemes during the pre-Independence period was about Rs. 300 lakhs only. After Independence till the formation of the Board in 1971, 87 urban water supply schemes were commissioned benefiting a total population of 27

after year, particularly so from the year 1969-70 with pronounced effect since the Board's formation.

Thus it may be seen that the execution of water supply and sewerage schemes in the State got a great impetus after the formation of the Board. Water supply to as many as 40 towns was commissioned within the short period of three years benefiting a total population of 32 lakhs, the total expenditure incurred being around Rs. 33 crores. It is also interesting to note that the amount spent by the Board during the three years of its formation is more than the entire expenditure incurred since 100 years of the commencement of water supply schemes in our State. As a result, the position on date is that out of the 740 urban towns in the State with a population of more than 5,000, water supply is available in about 170 towns covering a population of about 100 lakhs. This represents about 65 per cent of the total urban population of 155 lakhs.

The most important development during the last two years is the taking up of the Rural Water Supply Programme in a mass scale on war footing. Readers are aware that the rural population of 256 lakhs is distributed in 374 Panchayat Unions comprising 58,595 villages

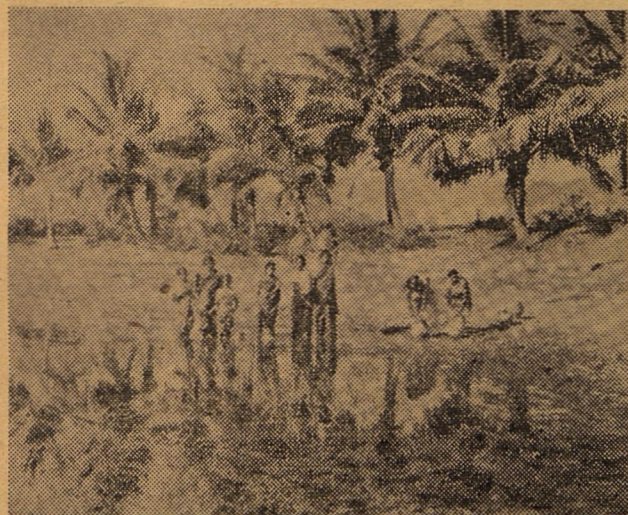
S. KANDAPPAN,

M.A., M.L.A.,

Chairman,
T.W.A.D.

lakhs, the expenditure incurred being Rs. 2,889 lakhs. Thus the total expenditure incurred prior to the formation of the Board in this sector was Rs. 32 crores. It is to be noted that in the year 1966-67 and prior to it the water supply and to a great extent sewerage was a neglected sector. The annual total outlay in the water supply and sewerage schemes in the State never exceeded Rs. 200 lakhs. From the year 1967-68 onwards, the outlay on water supply and sewerage has been increasing remarkably year

DRINKING WATER FACILITIES IN VILLAGES



Yesterday (L)

and



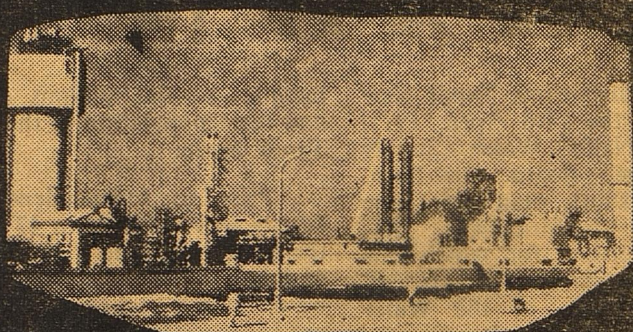
Today (R)

and hamlets. Regarding rural water supply the position is that 4,916 villages remain without any source of water; 2,230 villages in endemic areas are having water supply not protected enough to safeguard the health of these villages; in 11,814 other villages the water supply available is most inadequate creating crisis during summer months. The Government as well as the Board started thinking seriously about devoting greater attention to the vast majority of rural population which has been very badly neglected all these years. In the 12-year Perspective Plan for the State prepared by me under my Chairmanship for the "SANITATION GROUP" and submitted to the State Planning Commission, a great thought was given to this aspect of plan. A scheme was prepared for covering all the rural population with adequate protected water supply in a phased programme. A Special Investigation Division and one Planning and Design Cell were created by the Board for this purpose during 1971-72. The Special Investigation Division conducted investigation in the villages for the provision of safe drinking water for these villages where there is scarcity and endemicity. The Planning and Design Cell has processed 6,200 estimates for the villages identified by the Special Investigation Division.

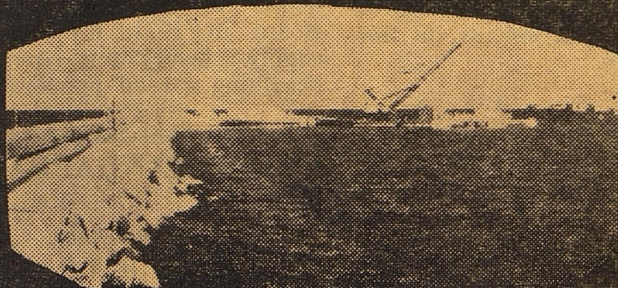
The execution of water supply scheme in rural areas has been tackled in a three-pronged effort through the UNICEF, Accelerated and Minimum Needs Programmes. The Government of Tamil Nadu sanctioned a scheme for Rs. 2.71 crores to drill 8,850 tube-wells in the scarcity and cholera-affected villages of the State covering all hard rock formation areas benefiting 2.62 million people within a period of five years with the assistance offered by the UNICEF in the shape of drilling rigs and transport vehicles. According to the subsidiary plan of operation 2,000, 4.5 in. dia. wells are to be drilled during the period 1971-74 covering 11 Districts of our State. So far, 1,400 successful tube-wells have been constructed in 720 villages with 950 hand pumps and 20 power pumps installed therein.

Under the Central sector, the Government of India during 1972 initiated the Rupees Twenty Crore Accelerated Programme of water

MILESTONES IN 'TWAD' WORKS



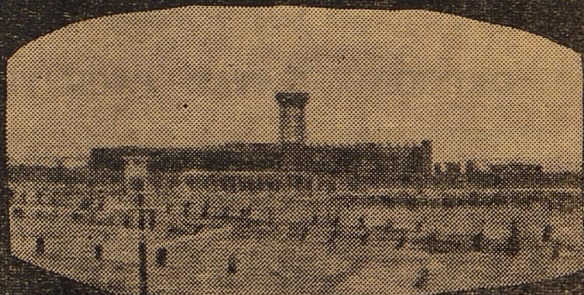
INDUSTRIAL COMPLEX (SPIC), TUTICORIN



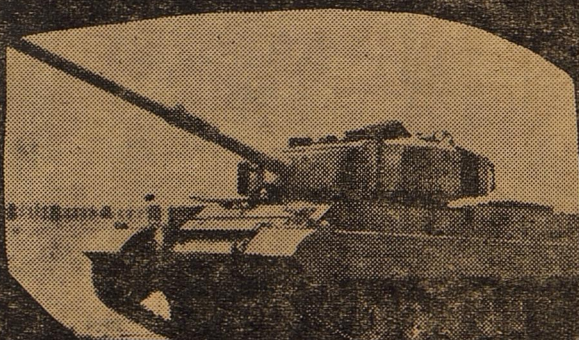
HARBOUR PROJECT, TUTICORIN



STEEL CASTING PLANT, ARKONAM



SMALL ARMS PROJECT, TIRUCHIRAPPALLI



HEAVY VEHICLES FACTORY, AVADI

supply and sanctioned 421 schemes covering about 600 villages at an estimated cost of Rs. 3.1 crores. About 300 schemes covering the villages in Ramanathapuram, Dharmapuri, South Arcot and Chingleput districts have been completed. But only half the money promised was given by the Centre and the rest was borne by the State. Now this programme has been merged with Minimum Needs Programme.

A sum of Rs. 25 crores has been earmarked by the Planning Commission for the implementation of Rural Water Supply schemes in Tamil Nadu during the Fifth Five Year Plan. The funds originally allotted for 1974-75 was Rs. 2.5 crores of which Rs. 50 lakhs was provided for UNICEF Programme. Considering the importance of the issue, the Chief Minister of Tamil Nadu was kind enough to sanction an extra allotment of Rs. 2.0 crores to tackle the scarcity and endemic villages during the current year itself under the Minimum Needs Programme. Accordingly a blueprint has been drawn for taking up 1,000 numbers of endemic villages covering 50 per cent of the villages in the endemic region during 1974-75. Further, in the case of scarcity and no source villages it is programmed to provide 1,500 tube-wells under the UNICEF Programme and tackle another 600 villages under the Minimum Needs Programme.

As a result, in the Rural sector the present position is that about 1,074 villages have been served with water supply. The expenditure incurred is Rs. 3.3 crores benefiting 5 lakhs of rural population.

To cope up with the increased work load the entire set up of the TWAD Board has been reorganised from efficiency and economy point of view. Two circles will be solely in charge of the Rural Water Supply Programme. The necessity and importance of a centralised Design office have been recognised and expressed not only by the distinguished engineers in our country but also by the U.S. Advisory Team which visited India sometime back. In line with this thinking a Central Design Circle has been created in the revised set up.

In this connection, it will not be out of context if I draw the attention of the readers to the recommendations made by the Committee during the Seminar on "the

Financing and Management of Water Supply and Sewerage works" held at New Delhi during 1964 under the auspices of the World Health Organisation. It was suggested that for effective planning and implementation of water supply and sewerage schemes, it is absolutely essential that a Board is formed in every State. I would venture to state that the TWAD Board is the first and only one of its kind in the country formed to look after the water supply and sewerage works for the whole State.

In addition to the Urban and Rural Water Supply Programmes enumerated above, some of the major projects undertaken by the TWAD Board deserve special mention. They are the 20 MDG water supply project to Tuticorin Industrial complex, the Veeranam Water Supply Project, the Siruvani Water Supply Project and the Water Supply Scheme to Salem Steel Plant.

In pursuit of the National goal of self-reliance in the field of Agriculture the Tamil Nadu Government have set up the SPIC at Tuticorin under the joint sector undertaking to manufacture fertilisers. The TWAD Board was entrusted with the giant task of providing 20 million gallon water to the Industrial complex to be set up Tuticorin at a total estimated cost of Rs. 4.70 crores. It goes to the credit of this organisation that against heavy odds and natural problems a difficult task has been achieved within a short period.

The Veeranam Project envisages augmenting Madras City water supply by 40 MGD by bringing water from the Veeranam lake to the city for a distance of 220 km. through 1,676 mm (5 ft. 6 in.) dia. prestressed concrete pipes. The total cost of the project is Rs. 29.25 crores. This is one of the largest water supply schemes in India and the largest in Tamil Nadu. The scheme is expected to be completed in another year and a half.

As a good example of Inter-State co-operation in achieving the common objective of raising the living standards, the TWAD Board is proud to associate itself with the construction of the Siruvani Project. This has been possible as per the agreement concluded with the Government of Kerala by which the Government of Tamil Nadu can draw 1,300 million cubic feet per year to meet the drinking water

requirements of Coimbatore and its surroundings forming greater Coimbatore. This will ensure a daily supply of 22.3 million gallons. This mighty project estimated at Rs. 10.20 crores is expected to be completed

Taking advantage of the experience and expertise at the disposal of the TWAD Board, the Salem Steel Plant authorities have requested the Board to plan and implement their 15 MGD water supply project. We are proud that the investigation has been completed and detailed design is in progress. This is another feather in the cap of the TWAD Board !

Research and Development Activities of the Board

The TWAD Board has a Research Unit under one Executive Engineer with 3 sub-divisions under it. The Kodungaiyur Sewage Reclamation Research sub-division established at Kodungaiyur Sewage Farm of the Madras Corporation is engaged in studies on sewage reclamation for industrial use at Madras by different methods namely sewage lagooning, trickling filters and activated sludge. The sub-division at Kilpauk Experimental Filter Station conducts studies on water treatment plants and flow in wells. The Industrial Waste sub-division at Guindy is conducting survey on pollution of rivers by the discharge of tannery wastes and distillery wastes.

We have recently created the Madras Metropolitan Division for preparing a Project Report for obtaining the World Bank assistance for the provision of water supply and waste water disposal facilities to the satellite towns, urban nodes and rural areas constituting the Madras Metropolitan area, including Madras City.

The TWAD Board is poised for more and quicker coverage in the days to come. Apart from the help and guidance that we get from the Government of Tamil Nadu, if there is anything that made this stupendous task which appeared as a dream some years back, a reality, devotion of the TWAD Board Engineers. To these dedicated men and the other staff of the TWAD Board, I take this opportunity to place on record my deep sense of appreciation.



Time is not far off for the citizens of Madras to drink the Cauvery water and take bath in the holy water too! 40 million gallons of water will be flowing daily to the Madras City from the Veeranam lake through the gigantic 1,676 mm (66 in.) diameter P.S.C. pipe-line over a distance of 220 km, to quench the thirst of the 2.5 million people living in the city. To the thirsty millions in the city whose water supply requirements were periodically subject to the vagaries of the monsoon, this is a real boon indeed!

This achievement will become possible after a few record-making items of work are completed. A pipe-line will be laid through difficult terrain traversing 220 Kilometres from Veeranam lake to Madras city. The diameter of the prestressed concrete pipe-line will measure 1,676 mm (66 in.) internally. Each of the pipes measuring 6 metres in length will weigh about 14 tons. A quantity of 40 million gallons of water will flow through the pipe-line every day. The scheme will cost Rs. 29.25 crores to execute and Rs. 46 lakhs for annual maintenance.

In terms of raw materials, the scheme will use 1,20,000 tonnes of cement, 1,80,000 cubic metres of coarse aggregate, 1,00,000 cubic metres of fine aggregate and 15,000 tonnes of high tensile steel. This is one of the largest water supply schemes in India and the largest in Tamil Nadu.

The first ever public water supply scheme came into existence in 1872 in Madras city. Comprehensive improvements were effected in 1914. A quantity of 52 million gallons per day is being supplied during normal times to the present population of 2.5 million from the 3 existing sources

Satyamurthy Sagar, Cholavaram lake and Red Hills lake. This works out to less than 20 gallons per capita per day as against 40 to 50 gallons per capita per day obtaining in or planned for in the other State capitals of India. The total anticipated water requirement for Madras city during the year 2001 is estimated as 200 million gallons per day which will require long term planning.

The Veeranam lake in South Arcot district fed by the Vadavar channel is the source of water supply. An intake tower in the left flank of the lake will draw 81 cusecs of water. This quantity will be pumped to a water treatment plant located at Vadakuthu 21 Kilometres away. The pump sets will have a duty 30,450 gpm against a head of 47.24 metres. A battery of 6 pumps which includes 50% standby is proposed.

by Thiru. T. S. KANNAN,

*Special Chief Engineer,
Veeranam Project, Madras.*

The Water Treatment Plant

At Vadakuthu, a 40 mgd water treatment plant will be constructed. This will treat the raw water through the following steps:

1. Prechlorination
2. Coagulation, flocculation and clarification
3. Rapid sand filtration
4. Chlorination

The treated water will be pumped from Vadakuthu to the city over a distance of 198 Km. The pump sets will have a duty of 27,770 gpm against a head of 67.00 metres. The water treatment plant will be the largest one constructed in Tamil Nadu.

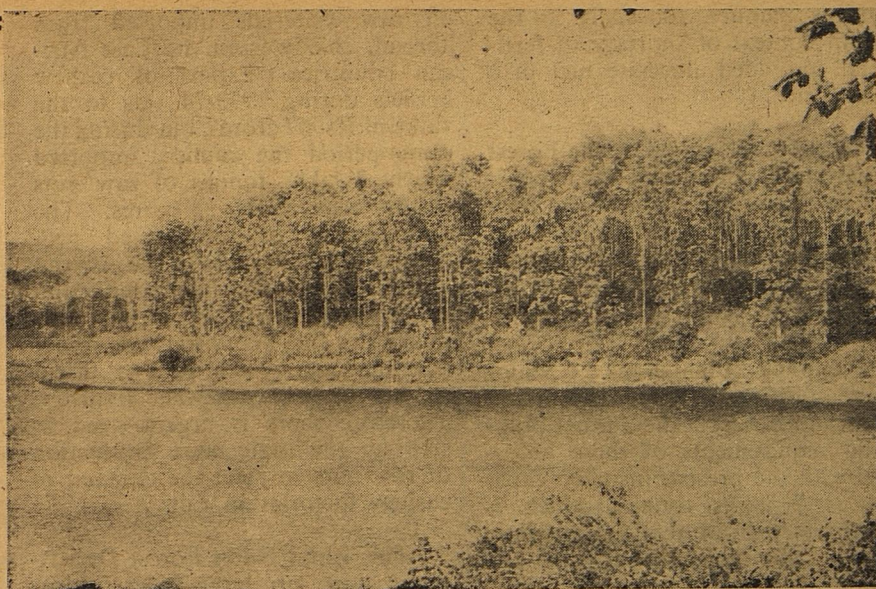
The conveying main of prestressed concrete with an internal diameter of 1,676 mm (66 in.) was decided upon after considering the size and material to give the most economical combination for capital and running cost. The prestressed concrete pipes manufactured are vacuum processed, adopting BBRV system of circumferential and longitudinal prestressing. The alignment of the pipe line from Veeranam lake will be along the lower Anicut-Vikravandi Road upto Vikravandi and then along the National High way upto a few kilometres ahead of Madurantakam. Then the pipe line is routed via Karunguzhi, Tirukkalkundram, Tirupporur, Tiruvannamur to the Madras city. This component forms a major work costing Rs. 20.60 crores for the entire length. The pipe line has to cross eleven major rivers including Vellar, Gadilam, Ponniar, Palar, the Okkium course near the city and Adyar inside the city.

Sufficient number of air valves, scour valves, gate valves and controls at the pump houses have been incorporated in the pipe line for satisfactory functioning of the pipe line. Break pressure tanks at appropriate locations are proposed in the pipe line to minimise water hammer and surges at critical conditions of working such as sudden stoppage of pump sets due to electrical failures or pipe line bursts.

When completed, the supply of water to Madras city will be nearly doubled. The attractive feature of the scheme is that even in the event of the failure of the monsoon, Madras city can look forward for dependable supply of water from the Veeranam source.

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Forest DEVELOP- MENT IN TAMIL NADU



Forests are a renewable natural asset which are essential for the welfare of mankind. They provide timber, fuelwood, gums, resins, essential oils and many other items of utility. Several industries such as paper and board, rayon, match, tanneries and saw mills depend on forests for their raw materials. Forests help to conserve the soil and to regulate the flow of rain water, thereby minimising the recurrence of floods. They also play a vital role in countering the dangers of environmental pollution.

Tamil Nadu is relatively deficient in forest resources. As a result of States' reorganisation in 1956, large tracts of valuable forests from the old Madras State were transferred to Kerala and Karnataka. The total area under reserved forests and reserved lands in the State at present is 20,925 km, which is 16.1% of the land area, as against an optimum of one-third of the land area laid down in the National Forest Policy. Major portion of the State experiences semiarid climate, with an annual rainfall of less than 800 mm., where the natural forests are of low productivity. Much of the forests had been denuded in the past during the panchayat and zamin management. Hence one of the main objectives of forest development is to improve the yield and to maximise the return from the forests.

Development under Five Year Plans:

Not much attention was paid to forestry sector in the First Five

Year Plan. However, the tempo of development had been steadily built up in the succeeding Five Year Plans, with a total expenditure of Rs. 1,442.74 lakhs under the various schemes upto the end of the Fourth Five Year Plan.

The outlay during the different Plan periods are given below :—

The various forestry schemes are aimed at raising plantations of industrial species such as teak, matchwood, cashew and rubber. Special emphasis is laid on raising plantations of quick growing species, namely, Eucalyptus, wattle and bamboos to meet the demands of paper, rayon and other wood based industries. Under the scheme of extension forestry and farm forestry large tracts of village waste lands, canal banks, river margins and foreshores of tanks have been afforested.

Soil Conservation schemes have been taken up in an integrated manner in the catchment areas of river-valley projects to minimise soil erosion and sedimentation of reservoirs.

The more important schemes are detailed below :

By

K. A. Bhoja Shetty,

*Chief Conservator of Forests,
Tamil Nadu.*

Timber : The current annual demand for timber in the State is nearly 3,00,000 tonnes, whereas the annual production is about 70,000 tonnes. Bulk of the timber requirements of the State is met from import from other States. Under the Five Year Plans emphasis has been laid on cultivation of timber species, particularly teak, but the areas suitable for planting teak in the State are confined to a few restricted localities with favourable rainfall and soil, in Coimbatore, Nilgiris and Kanyakumari districts.

Teak has also been grown successfully with other timber species like sissoo (*Dalbergia sissoo*) along canal banks of the Cauvery and Tambaraparni irrigation systems.

Red sanders is a timber of the dry tracts which has an export market, especially in Japan. A scheme has been taken up for raising Red Sanders plantations in Chingleput and North Arcot districts.

Fuelwood : The annual consumption of fuelwood (including charcoal) in the State is estimated at 90 lakhs tonnes whereas the production from the forests under the control of the Forest Department is about 30 lakhs tonnes per annum. Rest of the supply is obtained from the adjoining States of Kerala and Andhra Pradesh and also from private lands. A large quantity of cow dung is burnt as fuel, which could be usefully diverted to the

fields as manure, especially in the present context of shortage of fertilizers, provided alternate fuel at a cheap price.

Casuarina is grown by the Forest Department along the sea coast and river margins to meet the fuelwood demand. Plantations of Eucalyptus and indigenous miscellaneous species are also raised on an extensive scale.

Pulpwood Plantations : Major wood pulp industries are paper and rayon industries. The annual pulpwood requirements of these industries with the present installed capacity is 2 lakhs tonnes, which is largely met from the departmental forests. Bamboos, Eucalyptus and wattle are the chief raw materials.

The demand for both paper and rayon is increasing rapidly. Increase in population, rise in the standard of living and spread of literacy have resulted in greater consumption of paper and the nation is already faced with an acute shortage of this commodity. The existing industries have plans for expansion and there are proposals to start new units for paper and rayon production. The Forest Department has launched on large-scale pulpwood plantations to meet the present and the future demands of the industries.

Wattle : Leather tanning is one of the major industries in Tamil Nadu. Tanning materials to an extent of about Rs. 4 crores per annum are imported annually to meet the needs of the industry in the country, principally in the form of wattle extract and wattle bark.

Black wattle (*Acacia meansii*), a native of Australia, has been raised in the Nilgiris and Kodaikanal hills over a total area of about 23,251 hectares. The production of bark has to be stepped up considerably by undertaking more intensive methods of cultivation in order to meet the requirements of the tanneries without resorting to imports on a large scale.

Wattle wood is used by the rayon pulp industry.

Cashew : Although India holds virtually monopoly in cashew kernel trade, meeting nearly 90% of the world's demand, it depends heavily

on raw materials imported from abroad, chiefly from the East African countries. Export of cashew kernels during 1973-74 was to the value of Rs. 67 crores, but during the same period the country imported nearly 2 lakhs tonnes of raw nuts to the value of Rs. 38 crores. The development of mechanised processing of cashewnuts in the African countries and the likely reduction in the availability of surplus raw nuts from these countries are recent developments which pose a threat to the Indian cashewnet industry. Therefore there is urgent need to step up the indigenous production of raw nuts to meet the demand of cashew factories in full.

The Tamil Nadu Forest Department took up large-scale cultivation of cashew in the forest areas during the Second Five Year Plan period. Since then the area under cashew plantations has increased steadily and the total extent planted upto 1973-74 is 35,908 hectares. Cashew plantations are raised mainly in Chingleput, South Arcot, Tiruchirapalli, Pudukottai, Thanjavur and Ramanathapuram districts.

Rubber and Tea: In recent times, the Forest Department has diversified its activities by taking up cultivation of other plantation crops like rubber and tea. In Tamil Nadu Kanyakumari district offers optimum conditions for the growth of rubber. The Forest Department started planting rubber in this district in 1960-61 and so far the area planted is 3,226 hectares. The older plantation, sare under tapping and the annual production at present is about 700 tonnes.

For the rehabilitation of repatriates from Sri Lanka, the department has started a scheme for planting 800 hectares with rubber at an estimate cost of Rs. 81.49 lakhs. About 330 families will be provided employment in this project.

Another project implemented by the Forest Department for the rehabilitation of repatriates from Sri Lanka is the tea plantation project in the Nilgiris. The schemes envisages planting of tea over an area of 1500 hectares at a cost of about Rs. 600 lakhs. The number of repatriate families to be settled in the project is 1,750. So far, a total extent of 742 hectares has been planted and 444 repatriate families have been settled.

The extent of plantations raised under different schemes during various plan periods are furnished in the following page.

Extension Forestry and Farm Forestry :

In view of the limited extent of forest areas in the State, steps have been taken to afforest large areas of poramboke lands, tank beds, canal and river banks lying outside the forest limits. According to the survey conducted by the Forest Department during 1956 to 1966, it is estimated that about 5.98 lakhs hectares would be available for afforestation. The scheme of farm forestry was started in 1960-61 and are planted upto 1973-74 is 41,561 hectares. In addition, an extent of 8,101 hectares has been planted along river and canal banks. The object of this programme is to meet the demands of the local population for timber fuel and green manure.

Divisions have been started in a few districts with a view to increase the tempo of extension forestry programme. These divisions will also encourage tree planting in private lands by supply of seedlings at nominal cost and by providing necessary technical help. Planting of avenue trees has also been proposed to be undertaken by the Extension Forestry Divisions.

Soil Conservation :

Soil Conservation works have been taken up in the catchments of some of the major river valley projects with the object of minimising soil erosion and sedimentation of reservoirs. The works taken up are essentially afforestation, terracing and contour bunding in agricultural lands and engineering works like check-dams, gully-plugging, etc. Kundah and Lower Bhavani project areas are tackled under the Centrally sponsored sector while soil conservation works in the catchments of Mettur and Vagai projects are implemented under the State sector.

Revenue:

The gross revenue realised from the forests during last five years is furnished in the next page:—

Year	Revenue (Rs. in lakhs)
1969—70	335.82
1970—71 ..	366.08
1971—72 ..	455.90
1972—73 ..	490.59
1973—74 ..	735.40

The anticipated revenue during 1974-75 is Rs. 1,000 lakhs. Nearly one-third of the receipts is from sandalwood. Timber also contributes a sizeable share in the revenue. The return from the development schemes undertaken in the past has also shown a steady increase and the annual revenue from this source is of the order of Rs. 200 lakhs.

—o—

DURING FIVE-YEAR PLAN PERIOD

Plan Period	Forestry		Soil Con- servation	
		Rs. (in lakhs)		Rs. (in lakhs)
First Plan (1951—56)	..	30.43	..	..
Second Plan (1956—61)	..	101.70	..	45.57
Third Plan (1961—66)	..	302.04	..	70.10
Post Third Plan Period (1966—1971)	..	247.75	..	51.01
Fourth Plan	..	497.15	..	106.99
		1,169.07		273.67

SOUTHERN FOREST RANGERS COLLEGE COIMBATORE

The College was established by the Government of Madras in 1912 and closed during Second World War and it was reopened in 1945. The Government of India took over the College on 1-7-1948 as a branch of the Forest Research in order to meet the needs of Central and Southern States of India and to some extent the neighbouring foreign countries.

Strength of Trainees :

88 students were admitted for the Rangers Course during the year.

175 trainees were on rolls of the College in 73—74. 3 (three) foreign scholars under Colombo Plan. The total number of Rangers trained at the College from 1912 to 1974 with a break of six years from 1939 to 1945, when the College was temporarily closed, is 2,724.

There are 7 foreign scholars in the Junior Course. Of them 4 are from Sri Lanka under Colombo Plan, 2 Laos under STEC Programme of Ministry of External Affairs and 1 from Afghanistan under F.A.O.

STATEMENT SHOWING THE AREA UNDER PLANTATIONS

Sl. No.	Name of the Species	Upto 1955—56	Second Plan 1956-57 to 1960-61	Third Plan 1961-62 to 1965-66	Post Third Plan 1966-67 to 1968-69	Fourth Plan 1969-70 to 1973-74	Total
		Ha.	Ha.	Ha.	Ha.	Ha.	Ha.
1.	Timber	.. 1,674	5,361	4,392	2,480	4,204	18,111
2.	Fuelwood	.. 7,704	6,497	11,393	5,146	5,859	36,599
3.	Wattle	.. 1,179	8,138	6,751	2,109	5,074	23,251
4.	Pulpwood	.. 6,034	1,396	5,452	7,812	15,579	37,363
5.	Cashew	.. 1,705	18,972	5,397	3,215	6,619	35,908
6.	Rubber	.. ..	63	1,210	633	1,320	3,226
7.	Tea	.. ..	..	..	..	557	557
Total		18,296	40,427	35,685	21,395	39,212	1,55,015

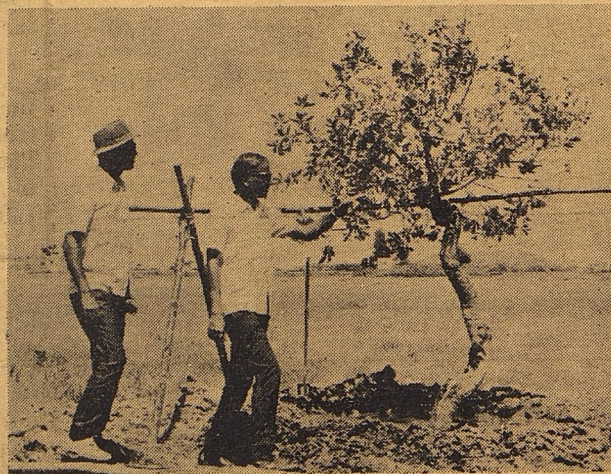
PROCESS OF TREE TRANSPLANTATION



Top Left : Gently removing tree from the soil without hurting its roots.



Top Right : Tree thus removed is lifted by a crane and is transported by a lorry.



Middle : Transported tree is planted with sick support in its new home.

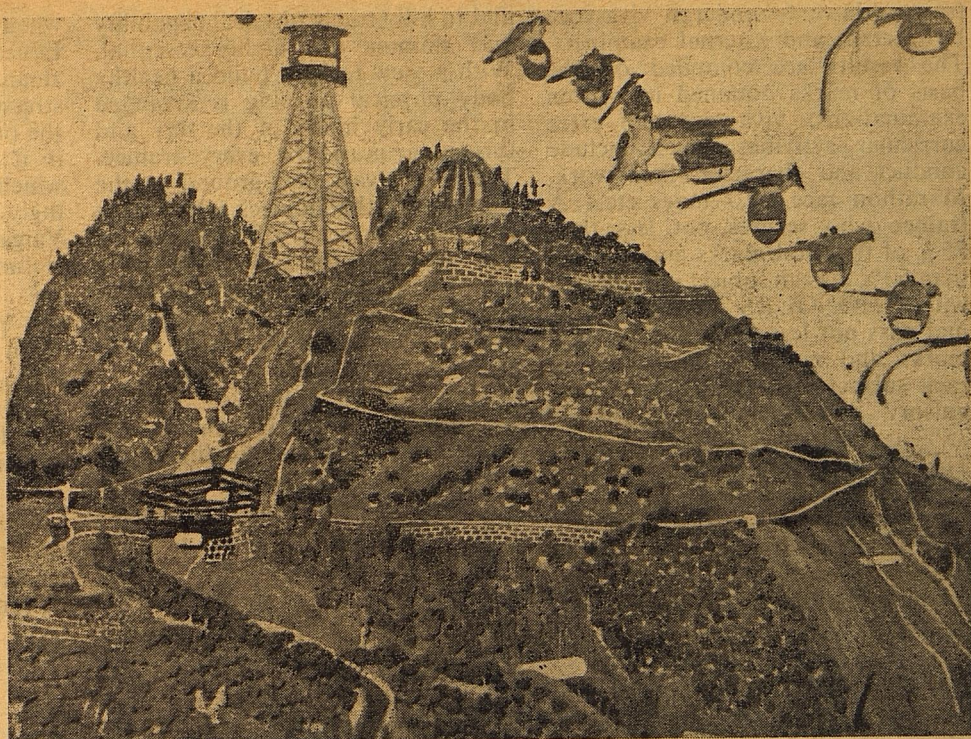
Bottom Left: Watering the plant.

Bottom right : Transplanted trees grown in the lake full of water. Many trees transplanted in this process are flourishing and birds sitting on the tree tops is really beautiful sight to look at in Vedanthangal birds sanctuary.



Samy-111

Tamil Nadu Forestry Training School At Vaigai Dam



A model at Vaigai Dam

When every one is concerned with the forests what is the role of the officers of the Forest Department who are actually in-charge of Forests and its inhabitants? It is imperative that such officers are trained effectively in the afforestation and soil conservation methods, to prevent forest offences and to protect the forests from wanton and wasteful destruction.

“Great trees are long in growing, but they are root up in a single hour”

—Curlius

In earlier days the Forest Guards were trained at Sethumadai in Coimbatore district and Mundanthurai in Tirunelveli district. Training was given to the Foresters at the Southern Forest Rangers' College, Coimbatore. The need to train the Foresters and Forest Guards under one roof was felt and in 1961 this became a reality. The TAMIL NADU FORESTRY TRAINING SCHOOL was established at Vaigai Dam.

The School campus covering an area of 494 acres has been declared under Section 4 of 1892 Madras Forest Act. There are quarters for the trainees and Office staff. The School was declared open on 31-7-1961.

This school is the only one of its kind in Tamil Nadu. The Head of the Institution is called Principal. 4 Instructors in the cadre of Range Officers and 2 Assistant Instructors in the cadre of Foresters form the teaching staff. As stated earlier, both the Foresters and Forest Guards are given training in this school. Forest Guards and Foresters in service are drawn from various Forest Divisions all over the State for the training. The training for the Forest Guards is for 6 months. In one year two batches of Forest Guards are trained, one from January to June and other from July to Decem-

V. SUBBIAH, B.A.

ber. The training for the Foresters is one year from July to June. During the training period each Forester trainee is paid an equipment allowance of Rs. 250/- and each Forest Guard Rs. 75/-. Training is given in the following subjects so that the trainees could understand the intricacies of Forestry, which otherwise they would not have a chance to learn.

1. Silviculture
2. Utilisation
3. Mensuration and Management

4. Survey and Drawing
5. Accounts and Procedure
6. Forest Engineering
7. Protection
8. Forest Law
9. Botany
10. Geology and Soil Science
11. Wild Life Management

With a view to have first hand knowledge about plantations, natural forests and wild life study tours are arranged for the trainees covering important areas in Tamil Nadu. Four such study tours are arranged for Forester Trainees and two for Forest Guard trainees (per set). For the Forest subordinates it is highly necessary that they are well prepared to face any eventuality arising during the course of discharge of their official duties. It is in this context that musketry training is arranged for the trainees with the help of Police officials. Special lectures on First Aid by the Medical Officer, Vaigai Dam and co-operative movement by the Principal, Pandia Nadu Co-operative Training Institute, Madurai are also arranged.

Terminal and Final Examinations are held for the trainees. Besides written examinations, the

trainees have to undergo viva-voce by internal and external examiners. The results are compiled on the basis of marks obtained in written examinations, viva-voce and extra curricular activities which include conduct and character, field work, Marathon race of 7 miles etc. A trainee who secures not less than 75% of the total marks and not less than 50% in each subject is decorated with "HONOURS". For a normal pass not less than 50% of total marks and not less than 35% in each subject are required. A compulsory minimum attendance of 75% is prescribed to the trainees. The Forest Guard who comes first is eligible for having sent for Forester's training and similarly the Forester who stands first becomes eligible for deputation to the Southern Forest Rangers' College, Coimbatore.

A healthy mind needs a healthy body. In the case of Forest Officers whose normal duty is inside forests

and in hilly tracts physical capability and stamina are highly essential. With a view to help build a healthy body physical training is arranged in the early hours of the day and this is a must for every trainee. There is a vast play-ground at the disposal of the trainees where they can play the game of their choice. To encourage the trainees matches are held and prizes are awarded to the winners during the sports day held in June and December every year.

Separate mess is run by the trainees themselves on dividing basis. Convocations are held twice in a year. The Half Yearly Convocation is held in December and the Annual in June.

A Museum is attached to the training school. It is located at Vaigai Dam. It contains some of the rare specimens of Flora and Fauna. Formerly it was within the school premises. During 1973

when the Hon'ble Minister for Education Thiru V. R. Nedunchezian, visited the Museum it was stressed that the Museum would serve the public and school students better if it was located at Vaigai Dam which is a tourist attraction. Accordingly, the Museum was shifted to Vaigai Dam in 1973 December and is functioning effectively.

The School has so far trained 1,059 Forest Guards and 621 Foresters and the service still continues. There is a proposal to provide additional training in Logging and also to start refresher course.

It is the bounden duty of every citizen to protect the forests and its wild life and be guardian of the national wealth.

"Trees mean Water,
Water means Bread,
And Bread is Life.

(K. M. MUNSHI.)

Steps To Enhance The Standard Of Education

The Vice-Chancellor, University of Madras, convened a meeting of the Principals of Arts and Science Colleges in the City and its neighbourhood on the 11th December, 1974.

The Vice-Chancellor placed before the meeting the following points for consideration.

1. The steps to be taken to prevent or minimise incidence of closure of colleges,
2. Improvement of the courses of studies,
3. Improvement in methods of evaluation and examination and

4. Full utilisation of the Government grant for providing work experience for students in the campuses.

All the Principals gave frank expression to their experiences. This revealed that in the first term, as the students are busy with the elections, the incidence of strikes is low. As they are busy preparing for the public examinations, the students do not resort to strike during the third term. It has become a habit during the last few years for students to go on strike in November/December in the second term. It came to light that the system of terminal examinations is not the same in all the Colleges. While a few conduct monthly tests instead of terminal examinations, others hold two terminal examinations in a year.

There is practically no difficulty in the conduct of the first terminal examinations. But, because of the closure of Colleges, the second terminal examinations are either postponed or conducted as class tests after reopening.

The Principals felt that if all the political party in the State could come to a "gentleman's agreement" as they did in the late fifties, not to involve students and teachers in active politics, a proper climate for undisturbed academic work could be created. The Principals wished to appeal to all the political parties to work towards this end. This is not to prevent the students from taking interest in political ideologies. It was also felt that if the candidates for the various elections in the Colleges are not sponsored by political parties, or elections conducted are not along party lines, it would go a long way to maintain peaceful atmosphere in the campuses. The cooperation and support of local citizens and teachers would be of great help to colleges in this matter. Hence parent-teacher councils may be organised wherever possible.

FOREST DEVELOPMENT THROUGH A SEPARATE CORPORATION

K. DURAIRAJ, I. F. S.,
MANAGING DIRECTOR,
Tamil Nadu Forest Plantation
Corporation Ltd.,
Tiruchirappalli.

The main objects of the formation of the Tamil Nadu Forest Plantation Corporation is to develop forestry in the State both intensively and extensively by utilising institutional finances. The National Commission on Agriculture had also made a study on some aspects, having a bearing on the forest development and has suggested a change over from the conservation oriented forestry to a more dynamic programme of production-oriented one. The Commission has recommended that agencies to implement the dynamic and aggressive man-made forestry programme in the State should be organised in the public sector as a fully State owned Company or a Corporation.

The Government after examining all aspects relating to the development of forestry proposed to set up an independent and autonomous body, namely, a Company, to be formed under the Companies Act, 1956 with the Board of Directors nominated by the Government to serve as an appropriate organisation for the purpose. According to the directions of the Government, Tamil Nadu Forest Plantation Corporation Limited was registered under the Companies Act, 1956 on 13-6-74. The Corporation has taken over the present commercial and developmental activities attended to by the Forest Department in the districts of South Arcot, Ramnad, Trichy and Pudukkottai to develop the existing plantations of Eucalyptus, Cashew and Casuarina besides planting new areas. The Corporation functions for the purpose of forest developmental activities in these four districts, with the Registered Office at Trichy. The forest areas together with the existing growth had been transferred to the Corporation by the State Government on a long term lease. The lease amount to be paid by the Corporation to the State Government for the first 3 years will be at a nominal rate of Rs. 20/- per hectare for planted areas and Rs. 10/- per hectare of unplanted areas annually. The main objects and other incidental and or ancillary objects are :

(a) increasing the productivity of the forest areas,

(b) creation of employment potential amidst the rural popula-

tion which in time will minimise migration to urban areas,

(c) Conservation of soil and moisture.

(d) augmenting the production of raw materials for feeding the existing and proposed forest based industries

and (e) serving as an essential link in the efforts to increase the productivity rate of the forest in better utilisation of the land resources.

The authorised capital of the Company is Rs. 2/- crores divided into 20,000 equity share of Rs. 1,000/- each. The following are the Board of Directors of the Tamil Nadu Forest Plantation Corporation Limited :

1. THIRU P. KANDASAMY, I.A.S., Secretary to Government, Forests & Fisheries Department, Fort St. George, Madras—Chairman and Director.

2. THIRU HARBANS SINGH, I.A.S., Special Secretary to Government, Industries Department, Fort St. George, Madras—Director.

3. THIRU K. CHOCKALINGAM, I.A.S., Special Secretary to Government, Agriculture Department, Fort St. George, Madras—Director.

4. THIRU K. A. BHOJA SHETTY, I.F.S., Chief Conservator of Forests, Madras—Director.

5. THIRU K. DURAIRAJ, I.F.S., Conservator of Forests—Managing Director.

The Tamil Nadu Forest Plantation Corporation Limited took over about 75,000 hectares of forest areas from the Tamil Nadu Forest Department on lease basis which includes 11,000 Ha. Eucalyptus Hybrid, 21,000 Ha. Cashew and 2,300 Ha. Casuarina Plantations. In the next 8 years the Corporation proposes to raise another 30,000 Ha. of Eucalyptus tereticornis plantations, 5,000 Ha. Cashew Plantations, besides replanting in the felled areas casuarina. The total capital cost of project is about Rs. 5 crores.

Eucalyptus Hybrid	—3,11,00,000
Cashew ..	—1,00,00,000
Casuarina	— 55,00,000
Other assets	— 29,00,000
Total	—4,95,00,000

REVENUE :

Yield of cashew raw nuts and apple from Cashew Plantations, pulpwood from Eucalyptus plantations and firewood from Casuarina

Plantations will be the main source of revenue for the Corporation. The revenue from the existing cashew plantations will be Rs. 25 lakhs in the first year and it will go up to 45 lakhs annually. From Eucalyptus plantations the revenue during the initial years will be Rs. 26 lakhs and it will go up to more than Rs. 140 lakhs from 9th year, when the new plantations will be due for felling for pulpwood. From Casuarina plantations, a revenue of about Rs. 7.5 lakhs can be expected annually. In order to tap institutional finances for this project, it has been proposed that the extension of Eucalyptus tereticornis plantations over 30,000 Ha. will be presented in the form of a Project Report to the Agricultural Refinance Corporation so that the capital cost for raising these plantations can be had as loans from the Commercial Banks arranged through Agricultural Refinance Corporation at a minimum interest rate of 11%. The total amount of loan to be raised for this project will be about Rs. 490 lakhs. For this loan a simple interest at the rate of 11% is payable. It is possible to start payment of interest right from the first year of the project and the payment of loan and principal will have to be made only from 9th year onwards upto 14th year. The entire outstanding amount of loan and interest would be repaid completely within 14 years of the project including the gestation period of 8 years.

It will be clear from the foregoing paragraphs that the project is worthy of implementation. This project will serve as an essential link in the efforts to increase the productivity rate of the forests and better utilisation of the land resources. The essential raw materials required by the paper and pulpwood industry and cashew nut factories will be made available on a scale commensurate with the growing demand for these commodities. The project being labour intensive, the travails of the rural unemployed and under-employed will be mitigated. The creation of man-made forests in the place of the existing scrubs is expected to create optimum condition for maintaining the edaphic, hydrological and climatic balance and thereby create a favourable influence on Agricultural economy.

GOVERNMENT RUBBER PLANTATIONS

If one begins to think of all the things in common use that are made of rubber or have rubber in their make-up, one realises how absolutely indispensable rubber has become to the modern world. At least 50,000 different articles that are in use today are made from rubber and more and more things that used to be made of wood, metal, leather, stone, brick and fabric are now being made of rubber. This is so because rubber is unique among all raw materials for its versatility. It can be as soft as a pillow or as tough as steel. Its capacity to stretch with the ability to return instantly to its original shape is unique. No other substance can absorb and store up so much energy as vulcanised rubber. It is extremely resistant to abrasion, wear and tear, and shock. It is an excellent insulator against electricity and heat. It is impervious to water and gases and resists many chemicals heat would corrode metals. It absorbs vibration and deadened noise. A world without rubber would be a terribly noisy place. It may sound a large claim to say that on the material side rubber has changed the face of Civilisation until one remembers that motor transport and the aeroplane have done more than the railways to bring people closer together and that this could not have been achieved without the pneumatic tyre. More than 65% of all the natural rubber produced in the world is consumed by the motor tyre industry. No army can move without trucks, planes and armoured cars. Rubber has thus become a strategic material of the greatest importance. It is used in Industry, on the farms, in the home, in sport, in hospitals and even on roads.

This raw material is obtained from the milky latex of the para rubber tree (*Hevea brasiliensis*) which is practically the only source of natural rubber now though nearly 900 plant species yield, latex containing varying percentages of rubber.

CONSERVATOR OF FORESTS,

Government Rubber Plantations,

NAGERCOIL

The tree is a native of Brazil and was introduced to tropical Asia in 1876. The tree is now grown in the tropical regions of Asia, Africa, and America. It grows on deep well drained soils in a warm, humid, equable climate with a well distributed annual rainfall of not less than 200 cms and at elevations generally below 300 metres.

Climatic Conditions

Such soil and climatic conditions exist in Kanyakumari district and rubber plantations were raised in this area by private planters from as early as 1930. In 1956 when the States were re-organised on a linguistic basis Kanyakumari district became part of Tamil Nadu. Rubber production at that time in the country was far below consumption and raw rubber had to be imported to meet the needs of the rubber goods manufacturing industry. The imports amounted to more than 50% of the total requirements.

With a view to bridge the gap between supply and demand several steps such as bringing more areas under rubber cultivation, replanting the areas under low yielding varieties of rubber with newly developed

high yielding varieties, controlling diseases affecting Rubber and encouraging better cultivation and processing methods were taken. When Kanyakumari District was formed in Tamil Nadu in 1956 the Tamil Nadu Government drew up schemes for the intensive development of the forests which formed more than 25% of the land area in the District. One of the schemes was the raising of rubber plantations by the Forest Department as climatic and soil conditions were highly suitable.

Extension of scheme to help the repatriates

The first government owned plantation was raised in 1960 and since then 3,400 Hectares have been planted with rubber and planting is still being continued. The original scheme for raising rubber plantations envisaged planting of 1,200 Hectares only but as planting progressed successfully further areas were taken up bringing the total to 1,800 hect. In the meantime several hundred hectares of private rubber plantations had to be cleared for the sake of irrigation projects and



Blue gum plantation at Ooty. This is mainly used for the manufacture of synthetic fibres and for pulp making.

to compensate for this loss the plantations were expanded further. Subsequently in 1969 in order to resettle a large number of repatriates from Sri Lanka a scheme was drawn up to raise another 800 hectares of Rubber Plantations and planting has been completed under this scheme. 333 families of repatriates are to be settled on these plantations and already 143 families have been settled. The ultimate target is to plant about 5,000 hectares before the end of the 5th Five-Year Plan period.

Administration

The 3,400 hectares of plantations raised are divided into seven divisions each under the control of a Divisional Forest Officer who is assisted by Range Officer and Foresters. For the entire 5,000 hectares there will be ultimately 12 divisions. There is an Assistant Engineer, in charge of Building and Road works. There is also a Civil Supervisor, an electrical Supervisor, two wiremen and a mechanic, to attend to Civil, Electrical and Mechanical works in the plantations and the latex processing factories. Nearly 1,500 labourers are employed regularly in the plantations for tapping the rubber trees processing the latex and for cultural operations in the plantations. In addition, building and Road works are carried out by contractors who engage their own labour. The entire rubber plantations constitute a circle in charge of a Conservator of Forests.

Rubber plantations can be tapped for latex from the 8th year after planting. The latex is then processed into raw rubber in the form of smoked sheets, crepe and liquid concentrate. A sheeting factory with smoke houses, a creping mill and a latex centrifuging factory have been established to process the latex. These three factories can process six tonnes of rubber a day. It is proposed to establish a 10 tonne capacity crumb rubber factory to produce modern block rubbers.

Price Fixation

Tapping the 1st rubber plantation started in 1967 and today about 1,200 hectares of plantations are

under tapping. Each year additional areas will come under tapping. The varieties of rubber used for planting are high yielding varieties and when all the plantations come into full production the average annual yield of rubber per hectare is expected to be 1,200 kg. The yield from the entire estate of 5,000 hectares will be 6,000 tonnes annually. The floor price fixed by the Government of India for rubber is about Rs. 5/- per kg. on an average for all grades and even at this price the gross annual revenue from the plantations can be expected to be Rs. 3 crores. The present market price is Rs. 7/- per kg.

Revenue from Rubber Plantation

The total annual yield of rubber during 1973—74 was 528 tonnes and this year it is expected to reach 600 tonnes. The gross revenue from the rubber plantations was Rs. 30,75,000 during 1973—74. The figure for 1974—75 is expected to be Rs. 55 lakhs. The total amount invested on raising and maintaining the plantations so far is about Rs. 2.5 crores.

These plantations apart from producing a very essential and indispensable raw material for strategic industries will provide also employment to over 3,000 workers in Kanyakumari district where the density of population is high and unemployment and under employment is chronic. The rubber plantation industry has more than fulfilled its objective of achieving self-sufficiency in raw rubber. In 1956 more than 50% of the countries requirements of rubber was imported. Today we are in a position to export small quantities of rubber and in the coming years there will be surplus production of rubber which can feed additional rubber goods manufacturing industries which are being set up in the Country now.

Privileges enjoyed by the plantation workers

The Government Rubber Plantations in Kanyakumari District come under the purview of the plantation Labour Act and various other Acts formulated for the welfare of

labour. The workers in the Government Rubber Plantations enjoy all the privileges under the Plantation Labour Act, like annual leave with wages, paid holidays for National and festival days, Sickness benefits, Maternity benefits, death-cum-retirement gratuity and the Industrial Employees Provident Fund benefits.

The workers are provided with accommodation which is rent free, water supply facilities, medical facilities etc. Provision for free education of the workers' children up to the Vth standard is made. Creches are provided in each division where the children of working mothers are looked after by experienced Aayas during working hours. Recreational facilities are also provided for the workers and their children. Every plantation worker is given an umbrella and bed sheet annually. There are at present three trade unions in the plantation (1) The Kumari Estate Workers' Union, (2) The Kanyakumari District Estate Workers' Union and (3) The Government Rubber Plantation Workers' Progressive Union. Amenities to labourers are being provided progressively and in due course, workers in all divisions will have all the amenities in full.

Welfare measures to the repatriates

Under the scheme for rehabilitation of repatriates coming from Sri Lanka 143 families have been settled so far. The scheme provides for employing 2 members from each family. A total of 333 families are to be rehabilitated. The rehabilitation work is being carried out in consultation with the Director of Rehabilitation and with loan assistance from the Government of India. The repatriates are provided with all the amenities listed out above. All the 333 families will be absorbed by 1978—79.

The scheme of raising rubber plantations in Kanyakumari District started on a modest scale and has grown into a successful, remunerative and flourishing project fully justifying the investment made and promising to yield better and higher returns in future.

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Sandalwood—

A VALUABLE WEALTH OF TAMIL NADU

Though Tamil Nadu contains a variety of forest types from the Tropical evergreen forests of the high rainfall areas in the Western Ghats with their lofty trees, to the thorn forests of the dry tracts of the East Coast with their shrubs and short trees, the forests of this State over a large tract falls below the normal concept of the average man of the term "Forests", as one visualizes an impenetrable maze of trees with the word "forests." Such thick forests with a variety of trees also exist in our State, though their extent is very low. It is not always the thick jungle that holds a highest utility value, as each type of forests serves a different purpose, each important in its own way.

It is a matter of pride to us that Tamil Nadu stands very high amongst the different States in India in the per unit income by area despite a low percentage of forests (16%) as compared to the total land area of this State. This high revenue yield potential is due to the presense in large quantities of the money spinner in the International Market — Sandalwood. Sandalwood (*Santalum album* — as it is botanically nomenclatured), is commercially known as the East Indian Sandalwood. At present its occurrence is confined only to our country and in India, it is mostly restricted to Karnataka and Tamil Nadu States, though sparse occurrence is known in Andhra Pradesh and Kerala. The annual production of Sandalwood is about 4,000 tonnes, of which Tamil Nadu's contribution is 1,400 tonnes and the rest is mainly from Karnataka.

In Tamil Nadu, Sandalwood is found in large quantities in the Districts of Nilgiris, Coimbatore, North Arcot, Salem and Dharmapuri and occurs scattered in the Districts of South Arcot, Tiruchirappalli, Ramanathapuram and Tirunelveli.

Sandalwood as a source of fragrance and medicinal value is well known, right from the very early times. There are many references to it in our ancient literature, where it is often associated with religious formalities and also as a specific for many diseases.

Exploitation of Sandalwood by the Forest Department is confined only to dead trees. Such death may be due to natural causes or disease. Such trees are exploited from the forests and transported to the Sale depots at Sathyamangalam or Tirupathur (North Arcot) where they are cleaned off their sapwood and stored for sale. It is the heart wood of this tree that possesses the essential oil responsible for the fine fragrance, and not any other part of the tree. There are rigid laws governing the extraction, transport,

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Conservator of Forests,
Madurai Circle, Madurai

storage and disposal of Sandalwood by the Forest Department. Even trees on the patta lands of some categories (*i.e.*, with reference to the dates of assignment in different revenue districts of the State, are held to be the property of the State and extraction of such trees are carried out by the Forest Department. There are rigid rules governing the extraction and disposal of Sandalwood belonging to individuals and such operations have to be carried out under the permission and licences granted by the Forest Department in each case. For possessing Sandalwood, more than 5 Kgs. one has to obtain a licence and unlawful possession is an offence which is liable for punishment under the rules in force to an imprisonment of one year and a fine of Rs. 10,000/-, and the produce as well as the vehicles involved shall be confiscated to the Government in such cases. The

price of Sandalwood was about Rs. 9,600/- in the year 1966—67 and has now shot up to an average of Rs. 58,000/- in July 1974. The price of wood is directly correlated with the price of Sandalwood oil, prevalent in the International Market. When such prices go up the problems of the Forest Department also increase because of the clandestine activities of unscrupulous persons, who resort stealing of such wood from the forests and dispose it of through unauthorised dealers. It calls for constant vigilance on the part of the Forest Department as well as the other Departments of the Government to detect and prevent such activities.

The Sandalwood smugglers, as smugglers of any other commodities, have a powerful organization with a highly efficient system of communications and intelligence. The methods of such smuggling are many. Billets of Sandalwood are smuggled along with bundles of cloth or any other such commodities. A small billet of about 15 cms. long and about 6 to 7 cms., in diameter is worth about Rs. 25/- at the present market rate and 4 or 5 such small billets taken in the brief case of an allegedly bonafide traveller in buses or train is worth about Rs. 125/-. Therefore the temptation to indulge in such activities is on the increase as stakes are high. Sometimes stock of Sandalwood is transported along with dry fish so as the fragrance of Sandalwood is masked by the bad smelling aura of the dry fish. These are known methods and the methods are changed and improvised frequently and the departments has to keep phase with such changes by being ever alert.

As has been mentioned earlier, Sandalwood is an important article of world commerce. The oil is obtained from the Sandalwood by steam distillation and the essential constitute about to 90% to 95%

of the oil. A yield of oil varies with the different parts of the tree, from about 2.5% in some of the stem portions to 7% in the root portion. Thus it is the root that contains the highest percentage of oil. About 95% of the Sandalwood produced in India is converted into Sandalwood Oil and the bulk of it is exported abroad where it is used as a base in perfumery and in the manufacture of soaps and to some extent for medicinal purposes. The exports are mainly to the United States of America, United Kingdom, France and recently to some of the Eastern European countries. Very little percentage of the wood is used in India as billets for religious purposess.

The extraction of Sandalwood being limited to the dead trees from among the naturally available Sandalwood, so far very little of artificial afforestation was resorted to till recently. The occurrence of a disease known as a spike disease which has assumed menacing proportions, calling for the premature felling

of the affected trees and this has been causing great anxiety both to the Forest Department and to the consumers. As a result of this disease, trees die young when they are immature. This results in large scale mortality and also leads to an erratic yield of oil, which is rather baffling. Despite research over more than 4 decades, effective control of this disease has not been located so far. This may lead to a quick depletion of the existing Sandalwood coupled with the growing demand in the market. While about 40 trees would yield a tonne of Sandalwood in the past, even 200 to 300 trees affected by spike do not yield this quantity now. Therefore, elaborate quick research is called for to control this disease and ultimately eradicate it, if our forests are to continue to hold the monopoly in this valuable species.

As an alternate method to maintain the stock of Sandalwood, large scale artificial regeneration of Sandalwood, is being undertaken now in the forests of Tamil Nadu.

This species is a partial parasite in its early stages and probably later too. It attaches its roots to the roots of the living plants nearby and draws the food, prepared by such host trees in a directly assimilable form. Therefore, artificial regeneration practices involve sowing seeds of the species in containers along with seeds of other forest species or other crops such as Thuvarai, etc., and plant them out on the field. As a plant grows older it sends its roots out and starts haustorizing on other big trees nearby. Sometimes Sandal roots traverse as far as 12 to 15 meters in search of a host.

Sandalwood, on date contributes about 5 crores of rupees to the State Exchequer apart from the foreign exchange to the country. This is a very valuable asset to the State. Therefore it is of paramount importance that this gift of nature to us is nurtured, maintained and improved, so that it will continue to serve its cause by the State and the country.



The Forest Department has built up a tradition of capturing and training elephants for all its multifarious labour-intensive work in forests like felling and transporting large forest trees. The elephant camps are regular parade grounds for taming and training the captured elephants. Seen in the picture is a formation of elephants under training.

THE TAMIL NADU CO-OPERATIVE HOUSING SOCIETY LIMITED, NO. X-406. VEPERY, MADRAS-600 007.

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Vice-President :

THIRU P. KASTURI PILLAI

Treasurer :

THIRU S. PALANISWAMY, M.A.,

—oOo—

Authorised Share Capital	—	Rs. 5 Crores
Paid up Share Capital	—	Rs. 2,53,10,225
Loan outstanding against Primary House Mortgage Societies and Building Societies.	—	Rs. 17,91,06,408

Long term loans for construction of new houses, additions and improvements etc., repayable in twenty years are granted to individuals through affiliated societies. Please contact nearby Primary Housing or Building Society for information.

Fixed Deposits also accepted.

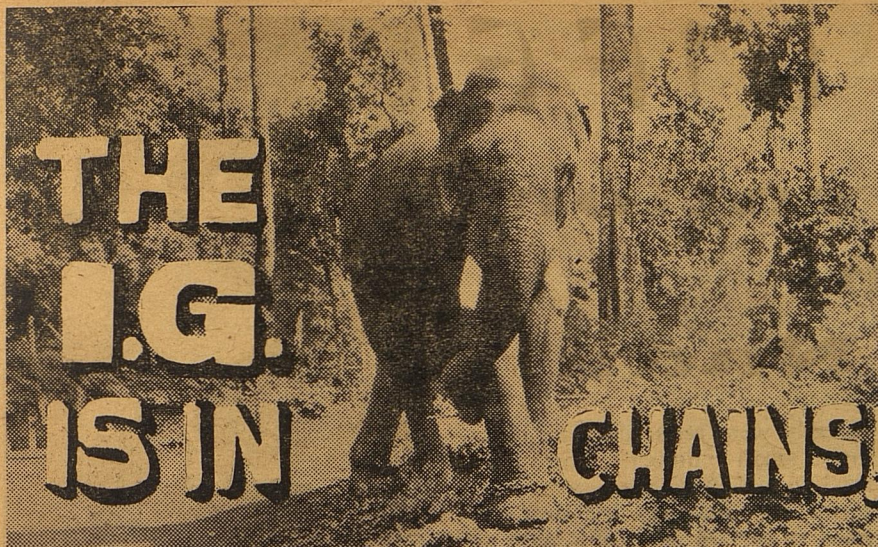
(Repayable of Principal and Interest payment guaranteed by Government of Tamil Nadu.)

MAXIMUM INDIVIDUAL LOAN

1. For Construction of new houses — Rs. 30,000
 2. —do— — Rs. 10,000
- (Through Rural Housing Societies)

P, K. PATHMANATHAN, B.A., H.D.C.,

Joint Registrar | Secretary.



—by PRIYA DAVIDAR,
COONOR.

Looking at him, one wondered whether there could be a ten foot Indian elephant at all. I.G. was named after an Inspector-General of Forests who had come for an inspection shortly after his capture in a pit. Some wise elephant man had even then known that he would live up to his name.

I.G. did not join the other elephants but stood apart with an aristocratic air, calmly scratching his toe with a stick. We learnt that he does not mix with the common crowd, and especially treats the other bulls with scorn. Such a snob he is.

The men who looked after and cared for the elephants were mostly drawn from the Malasar Tribe (Pulayars and Irulas being the other tribes in the camp). We enquired among them as to what marked I.G. as a great elephant. His nobility and strength, we were told. In spite of being assertive and fiercely independent, he was fond of people and never hurt a soul. Just then I.G. made a gurgling noise, interpreting it, his mahout Kalan said, he liked attention. This was our clue, to get close to him, feel him and pat him. He enjoyed being photographed posing for us at every angle without making a fuss.

When wild elephants were trapped by the pit method, the Forest Department found I.G.'s help invaluable. The men told us that the first thing I.G. did on reaching the pit was to give the captured elephant a sound rap, to assert his superiority. I.G. was useful not only in extricating captured elephants but also in training them.

In timber extraction he was invaluable due to his strength, skill and uncanny intelligence in extricating wayward logs.

I.G.'s most recent adventure was his part in the rescue operations of a family of wild elephants which were trapped in the Sircarpathy Canal of the Parambikulam-Aliyar Project. Even I.G. could not do much, the canal being a death trap, the majority of elephants perished.

At 52 years I.G. is middle aged passing on to old age. Because of his age and respected name he is not overworked. Yet where work requires strength, intelligence and courage I.G. is the obvious choice.

It was a bumpy ride on the back of an open timber lorry that took us over 33 Km. of forest road from Topslip, the headquarters of the newly formed Anamalai Wild Life Sanctuary in Coimbatore District of Tamil Nadu, to the Karuneer Elephant Camp. To add to the experience there were intermittent showers.

The forest on either side was mainly man-made teak plantations, with bits of natural jungle thoughtfully left by the old time forester along water courses and in hollows.

The jungle was dense and tropical composed of tall trees festooned with lianas and giant ferns and a lush undergrowth carpeting the forest floor. The morning was rather late for gaur and wild elephants which were said to be plentiful in those parts. But we did see chital, barking deer and troops of Nilgiri Langur which on sight of us languidly and effortlessly jumped from limb to limb and tree to tree and moved further away.

We were going to see I.G., the pride of the Tamil Nadu Government Elephant, who was famous with elephant enthusiasts and yet not universally famous because of his isolation.

The elephant camp was characteristically situated by the side of a river, and consisted of clusters of huts where the elephant men and their families lived, and larger huts where the elephant food was stored and cooked. There were thirty elephants in all in the camp, lined up and waiting for their morning meal. Among the assembled ele-

phants was one short squat bull—Ayyappan and a tall lanky temperamental bull—Tippu. We wondered which of them was I.G., but a Forest Guard told us that I.G. was yet to come from the jungle. We wandered around looking at and enquiring after the other elephants when someone called out "He is coming." Striding down the road was a magnificent tusker looking every inch as an Inspector General come to inspect the elephant guard drawn in his honour. A short length of his chain, slung over his right tusks, like an inspecting officers' swagger stick, completed the I.G. picture. Somehow captive elephants lose their proud bearing in exchange for a servile docility. But it was evident that I.G. was born free and living free despite the chains. He was beautifully proportioned and carried himself well—a Royal Elephant—a 'Kumaraya' according to Sander-son's classification. He carried a thick set, beautifully formed pair of tusks which, by way of abundant caution, had been cut short when young.

As estimates varied we wanted to measure him. We used both methods, a cross bar across his shoulder and also took the circumference of his fore foot which, multiplied by two, gives the approximate height at the shoulder. It was the Kavadi and not the mahout who assisted us. Elephants invariably know the difference between the driver and the learner driver. I.G. was no exception and consequently we had some difficulty in getting these measurements. He was an inch over nine feet and towered above the rest of the elephants.

WILD LIFE

Conservation In Tamil Nadu

The fauna and flora of a country are its national heritage. It is necessary that this national heritage should be used and managed with the utmost care and handed over to posterity in the same condition as we found them. It cannot be overemphasised that natural beauty is a vital part of man's spiritual and cultural heritage.

In our country development in all spheres had taken place very rapidly and in a spectacular way. Growth of agriculture and industrial developments have taken a heavy toll of the forest areas which are the habitat of wild life. The steady growth of population and the economic needs which it imposes have gradually encroached upon forest resources. Development of roads, issue of fire arms and use of poisons like folidol as pesticide have all been the contributory causes for the continued reduction of wild life in our country.

It must be recognised that India is remarkably one of the richest countries in the world, as far as the fauna and flora are concerned. We have had the most varied types of animals in our forest. But ever since sophisticated weapons were placed in the hands of man with faster mode of conveyance like the Jeep the threat to Wild Life has assumed greater proportions. Further the unrestricted issue of fire arms on the plea of crop protection Guns, became common excuses for the destruction of the valuable wild life. The export of skins and other wild life products under the plea of earning foreign exchange was also an important factor. Leopard and tiger skins have now become the most attractive items of such trade.

The Great Indian Rhinoceros used to occur in large numbers in the plains of northern India, but

recently were reduced to an alarmingly small number. Fortunately, this animal had been saved from extinction and they are now confined to certain parts of Assam and West Bengal. Similarly the Asiatic Lion would have been completely lost to posterity but for their preservation in the Gir Forest sanctuary of Gujarat. It is said to hear that the beautiful Indian cheetah has completely vanished and hereafter could be seen only in pictures and posters and not in the jungle. This is an irreplaceable loss. No amount of human ingenuity or technological ability can resurrect it. We have to realise that the world has lost something which has probably taken millions of years to evolve. There were, once, thousands of tigers in our country, but today this magnificent species is seriously in danger.

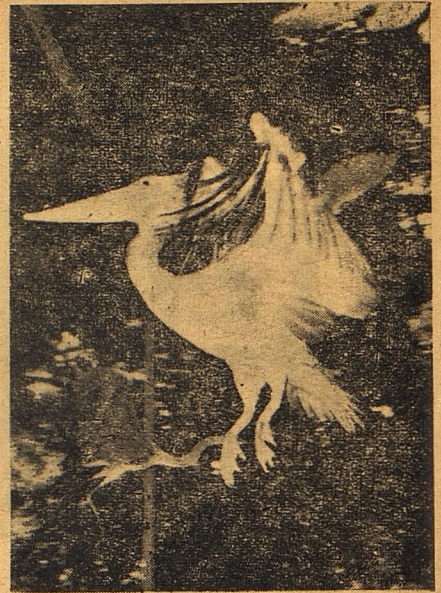
A.M. THOLAMANI DEVAR, I.F.S.,
Conservator of Forests.

(Working Plans and Research)

The Leopard, snow leopard, crocodile, four horned antelope, and black buck, many more are becoming rare and are now a threatened species.

The position of game birds, particularly the great Indian Bustard is precarious. Many other birds are vanishing fast on account of indiscriminate shooting.

So there is an obligation on the part of everyone that this national heritage of ours is guarded with care. The interference with the habitats and their reduction are the most serious factors leading to the depletion of wild life. Hydro electric projects have also taken up large areas of forests with the consequent disturbance to wild life. In-



dustrial and new technology pollute the air, the soil and the water and endanger wild life and cause a reduction in their number. Intrusion of men, poaching and heavy grazing have all been the contributory causes for the reduction in Wild Life. Wild life enthusiasts have to safeguard the fauna from all these destructive forces.

In Tamil Nadu a number of sanctuaries for animals and birds have been created with a view to preserve the diminishing population of wild life. These sanctuaries will be places where they could live and breed in peace and tranquility. There are six sanctuaries in Tamil Nadu, in addition to 19 water fowl refuges. Among the sanctuaries in Tamil Nadu Mudumalai and Vedanthangal are internationally famous. Mudumalai sanctuary was formed in the year 1940, over an extent of 321 sq. km. in the Nilgiris District. In Mudumalai, the dry and moist deciduous forests support a good population of wild elephants, Guar, Sambar and spotted deer. Mudumalai sanctuary is the only area in India where a large number of Chital and Guar (Indian Bison) could be seen at a time. Occasionally Leopard, tiger, barking deer are also seen. The bird life of this sanctuary is also very rich. This sanctuary is a great tourist attraction and a number of foreign tourists keep visiting the area.

Vedanthangal is the sanctuary for water-birds situated 52 miles from Madras. The gigantic congregation of waterfowl here has to be

seen to be believed. The branches of the barringtonia trees in the lake literally come down by the weight of the birds with their fully laden nests. Cormorants, Egrets, Grey heron, Open Billed Storks, Darter, White Ibises, Spoonbills, Grey pelicans and a host of other birds provide a real feast to the eyes when they are engaged in their flying and nesting activities. This is a very old sanctuary. From very early days this sanctuary was protected mainly by traditional village sentiments. Subsequently this is recognised by the Government and is maintained as a sanctuary by the Tamil Nadu Forest Department.

The Guindy Deer Park which is a tiny preserve of 231 hec. is unique by itself. It is incredible that a beautiful jungle exists within the Metropolitan City of Madras. It is with very great difficulty that this small extent of forest with its representative vegetation of the natural thorny shrub jungle has been preserved. It is worth the time, effort and expense to maintain it as a natural jungle. The main faunal attraction of the park is the Black Buck found nowhere in the world except India. Black Buck which is fastly dwindling is afforded protection here. Tamil Nadu can be proud of sheltering the largest population of Black Bucks in India, concentrated in the Guindy Park and Kodiakadu Reserve Forest in Thanjavur District. The total population of Black Buck is estimated to be over two thousand. This

park also affords protection to spotted deer and White Buck in addition to other animals and birds.

The sanctuary at Point Calimer in Tanjore District is 17 sq. km. in extent and was created in the year 1967. Point Calimer is noted for its large congregation of Black Buck, Spotted Deer, and a heavy concentration of Flamingoes. Semi wild horses and cattle also roam about the forests of Point Calimer.

A sanctuary for the tiger, first of its kind in India was constituted in Mundanthurai forest in Tirunelveli district in the year 1962. The extent of the sanctuary is 520 sq. km. Tiger is one of the species threatened with extinction. Thanks to the efforts of Government of India, "Project Tiger" has been launched in time to save this species and let us hope that this heritage will atleast be preserved. Even before a country-wide moratorium on tiger shooting was issued in 1970 all over India, Tamil Nadu had ordered protection to this grand animal as early as 1963.

The other sanctuary in Tamil Nadu that has recently been created is the Anamalai Sanctuary which is situated about 50 miles from Coimbatore. The area of this sanctuary is 958 sq. km. The Anamalais exhibit a rich and varied fauna and most of the animals such as the Elephant, Gaur, Tigers, Panthers and Deer are well represented.

Apart from these sanctuaries, there are nineteen water fowl refuges in the State spread over diffe-

rent districts, where protection has been afforded under the Wild Birds and Animal Protection Act.

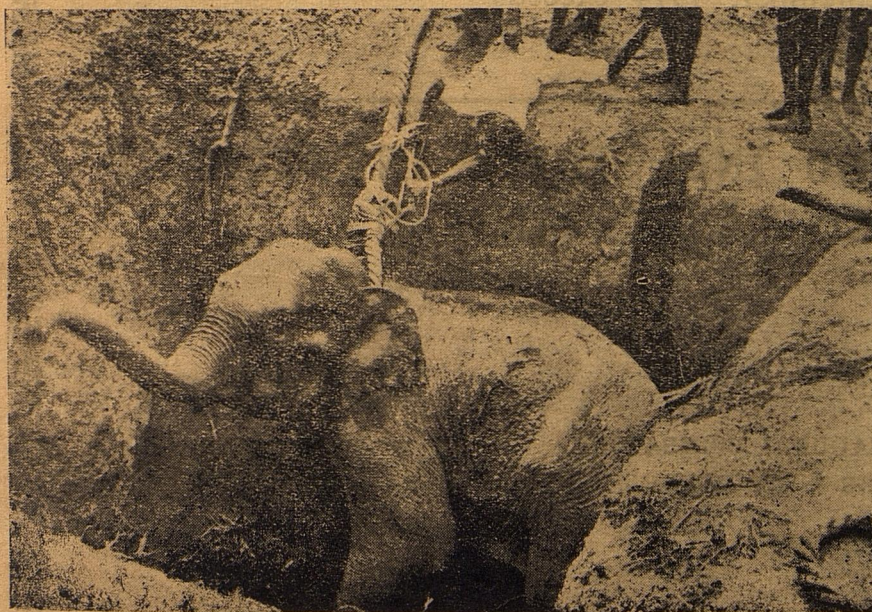
The State Government is also studying and exploring possibilities for the formation of more Bird Sanctuaries in all places where congregation of birds are noticed. Crocodile farms for the purpose of affording protection to this vanishing animal and for tourist attraction are also under consideration.

The most important step taken towards Wild Life conservation is the extension of the Wild Life conservation is the extension of the Wild Life Protection Act 1972 to Tamil Nadu. The Act aims at better conservation and protection of wild life by bringing under control the trade in wild life and wild life products and also by making it applicable to areas outside the reserved forests.

Wild Life is to be managed by dedicated personnel. It is necessary that people concerned with wild life management should have an inherent love for wild life. With this object in view, Tamil Nadu has proposed to start youth clubs for Wild Life. Students who have a flare for and love of wild life and forests, will be spotted out and suitable facilities for the study of Wild Life and forests, afforded to them so that the knowledge and training that they might gather from their young age may equip them better to become Wild Life managers in the future.

The other important aspects of Wild Life conservation are training and research. Scientific research is considered as an integral part of Wild Life conservation. For proper and intensified management of wild life a knowledge of the ecology of wild life and its habitat is indispensable. Trained personnel are the key to the success of Wild Life conservation. Meaningful steps towards conservation of Wild Life can be taken only when the Wild Life Manager is fully equipped to discharge his obligations.

It is also necessary that the popular awareness of the natural beauty of wild life, our Forests and mountains should be awakened. Wild Life publicity through the Radio, Television, press and school Text Books should be taken up on a regular basis. People living in and around rural areas have to be enlightened on the need to appreciate nature and the long term usefulness of Wild Life.



Trapped elephant is being lifted from the pit with the help of a rope.

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Tamil Nadu Agricultural University To The Farming Community

The following article is based on an interview with Dr. Rangaswami, Vice-Chancellor, Tamil Nadu Agricultural University, by a correspondent of the Planning Commission periodical "YOJANA". Dr. Rangaswami, while reviewing the activities and achievements of his University in the field of agricultural research, has suggested that the Government should introduce agriculture as a compulsory subject in schools.

"Almost all the graduates passing out of this University get employment without difficulty or delay, so that their valuable services are straightaway available to the people. This is an achievement of which the university as well as the students can feel legitimately proud."

When the Vice-Chancellor spoke these words in an exclusive interview to 'Yojana,' his face was lit up with enormous pride.

The university is the Tamil Nadu Agricultural University, Coimbatore, and the Vice-Chancellor is Dr. G. Rangaswami, a dedicated positive-thinking agricultural scientist with a rich research experience of more than 25 years.

Best talent selected

Dr. Rangaswami expressed joy over the fact that there is practically no problem of unemployment among agricultural graduates. According to him, this has been the position since 1945, except during a few occasional short spells. "In our University, we take care to attract our best talent; for every seat, we make the selection from amongst 15 to 20 candidates. Even for admission the qualifying marks are fixed very high so that only the really worthwhile talent is able to get in." The Vice-Chancellor added: "There has been a persistent demand for more agricultural colle-

ges. But we have been resisting the idea because we want to keep the quality of agricultural education very high."

Trimester system operated

A survey of the good work being done by the Tamil Nadu Agricultural University will corroborate this. Since its inception in 1971, the University has made substantial contribution for the enrichment of agricultural knowledge in the State. It has made rapid progress and is today considered to be one of the most outstanding universities in India. Within a short period of three and a half years, the University has set up four Faculties, 21 Departments, 20 Research Centres, one Agricultural Polytechnic (Krishi Vigyan Kendra), two Farmer's Training Centres and an energetic Communication Centre. With a fully integrated programme of teaching, research and extension education, the University is successfully operating a trimester system of teaching for effective internal assessment. The research work in the University is field-oriented and project-based; as many as 850 research projects are being carried out now by about 720 research workers under the able leadership of the Vice-Chancellor, who is also the guiding force behind the vital efforts of the Farm Advisory Councils designed to solve a number of the farmer's problems in agriculture promptly.

The importance of agricultural education in Tamil Nadu was effectively recognised in 1876 when an agricultural school was set up in Madras for training young farmers in the use of improved methods. Within two years the school was converted into a college offering diploma and certificate courses. The college was shifted to Coimbatore in 1907 in view of the wide variety of soils obtaining in this area. In 1920, the college was affiliated to

the University of Madras, with the diploma course being replaced by a three-year degree course. This was converted into a four-year course in 1957-58 following the introduction of the one-year Pre-University Course in the Madras University. In order to cope up with the demand for more agricultural graduates, a second agricultural college was started at Madurai by the State Government in 1965 because of the special problems and special crops of this area.

Multi-disciplinary Curriculum taught

The curriculum in both the colleges is a multi-disciplinary one consisting of Agricultural Botany, Soil Science and Agricultural Chemistry, Horticulture, Agricultural Economics, Agronomy, Animal Hygiene and Animal Husbandry, Agricultural Engineering, Agricultural Entomology, Plant Pathology and Agricultural Extension including some courses in Physics and languages like Tamil and English. The Coimbatore College was recognised in 1958 as a centre for post graduate training and the Madurai College was similarly upgraded in 1969. Students from all over India and also from other countries like Egypt, Nepal, Thailand and Malaysia seek admission into the college at Coimbatore. The Tamil Nadu Agricultural University was set up on June 1, 1971, with these two colleges affiliated to it. The colleges are now functioning as separate constituent units of the University along with the Coimbatore College of Agricultural Engineering and the Faculty of Basic Sciences and Humanities, Coimbatore. The Agricultural Research Stations at Bhavani-sagar, Aliyarnagar and Kaverippattinam, the Groundnut Research Station at Pollachi, the Apple Research Station at Kodaikanal and the Fruit Research Station at Periyakulam are attached to the University. They offer facilities to the post

graduate students for the research work. The All India Coordinated Research Projects at Aduthurai, Srivilliputhur, Kovilpatti, Cuddalore and Vriddhachalam and the All India Coordinated Research Improvement Projects at Tiruchi, Vopankulam, Muthupet and Kovilpatti are all run by the University.

As many as 220 Agriculture graduates, 20 Horticulture graduates and 50 Agricultural Engineering graduates pass out of the University every year.

Asked whether the University watched the career of the students passing out, the Vice-Chancellor said, "We do take some steps. We keep in touch with the State Government. We also send out our lists of successful graduates to prospective employers including industries and banks. About the placements of those accommodated by the Government and the employers we get prompt information. The State Government takes Agriculture graduates as gazetted officers. The Agricultural University itself absorbs some graduates to cope up with expansion."

Dr. Rangaswami referred in this context to the 65 year old Madras Agricultural Students' Union which is functioning from within the University campus, with the Vice-Chancellor himself as President. "This Union", he said, "acts as a lively link between the past and the present students of agriculture. Its 'Madras Agricultural Journal' has been regularly coming out since 1914; through its in-depth articles on agriculture and its research notes, the journal is rendering invaluable service in promoting modern agricultural thought."

Research

The Agricultural College and Research Institute in Coimbatore, with its bright record of 67 years of useful work, has been recognised as a pioneering research institution in many areas of agricultural science, particularly in plant breeding and genetics. As soon as the Tamil Nadu Agricultural University came into existence, Dr. Rangaswami set about reorganising the research activities of the Institute in such a way as to serve the farmer's needs effectively so that the laudable objectives of this need-based, rural-

oriented institution might be fulfilled. Besides integrated teaching, research and extension education in each discipline, several new Departments were started as a result. At present there are four faculties—one each of Agriculture, Agricultural Engineering, Basic Sciences and Humanities and Veterinary and Animal Sciences. In the four Faculties, there are in all 21 separate Departments dealing with the various subjects. The items of research work in each department are decided with a total awareness of the present and future needs of the farmers. The relevant officials in the State Government are consulted before the research projects are identified. These items are assigned with a total awareness of the present and future needs of the farmers. The relevant officials in the State Government are consulted before the research projects are identified. These items are assigned to the staff of the University for intensive research. The work done by the staff is reviewed quarterly by the concerned Heads of Departments. The Board of Management of the University is the chief administrative body which decides major policies. The Research Council is mainly responsible for guiding the research activities in the University. A master plan has been prepared to set up regional research stations and horticultural research centres in five different hill regions in Tamil Nadu and to undertake inter-disciplinary research work on multiple cropping and mixed farming.

While the funds for the various research activities are obtained mainly from the Government of Tamil Nadu, the Indian Council of Agricultural Research sanctions additional funds for research work on selected items of national importance. Of the 850 research projects now in operation, about 55 are on fundamental aspects while the rest are on applied aspects of agricultural science. The ICAR is presently financing 48 All India Coordinated Research Projects in various branches of agricultural science including farm machinery, soil and water management, horticulture, plant protection etc. In the Madurai College, some 84 projects (both fundamental and field-oriented) in different disciplines are in progress.

About 430 acres of land are available for experimental and demonstration work for the benefit of students. The University has ear-

marked nearly 30 acres of land for direct cultivation by the students themselves under its "Earn While You Learn" Scheme. The latest research findings are put to test in this land by the students.

Popular New Strains Developed

The Tamil Nadu Agricultural University has developed a number of new strains not only in paddy, pulses and millets, but also in a number of other items like tomato, papaya, banana, sun-flower, a variety of vegetables, groundnut, cotton and also flowers like the rose and the jasmine. The most significant of these are the improved paddy varieties, Bhavani and Vaigai, which have become very popular in Tamil Nadu during the past two years, covering a total area of about two lakh hectares and bringing an extra annual income of about Rs. 10 crores to the farmers. The University has also developed a wonder cotton by name "CBS 156" which is by far the best hybrid cotton evolved in India. This cotton spins upto 120 counts with a strong, long and fine lint and, when cultivated, gives high yields to farmers who can make a profit of about Rs. 10,000 per hectare. Even if this variety is cultivated in only one lakh hectares, it can yield enough high quality cotton to meet the entire requirements of India and thus help the country save as much as Rs. 150 crores of foreign exchange now being spent on importing the same from Egypt and other countries. This variety has a staple length of 36 mm. As the development of "CBS 156" represents a breakthrough in cotton breeding, the Tamil Nadu Agricultural University has drawn up an action programme for large scale cultivation of this new variety.

The Vice-Chancellor declared that the new strains developed in the University were very popular. The new varieties were made available to the farmers in the University itself and also through the State Department of Agriculture. Dr. Rangaswami said that there was a separate Department of Seed Technology in the University with a master's degree course. Seed farms were also being run by the Department of Agriculture. The Vice-Chancellor spoke about the efforts made in the University to evolve improved methods of cultivation and to deve-

lop better farm machinery and implements. Small powertillers were also being modelled. The Tamil Nadu Agricultural University, fully conscious of the short supply of nitrogenous fertilisers, has produced bacterial fertilisers in large quantities and is making them available to the farmers. The treating of the legume seeds with "Rhizobium" (bacterial) culture benefits the crop. The University has been distributing this culture to cover more than one lakh of acres of legume crops sown in Tamil Nadu and Pondicherry.

Dr. Rangaswami, as Vice-Chancellor, has organised a college of Agricultural Engineering and a college of Horticulture in the University, the former for the first time in South India and the latter the first of its kind in India. It is through his efforts that new Departments of Biology, Seed Technology, Forestry, Fisheries and Food Technology have come into existence in the University.

Extension Education

The Directorate of Extension Education in the University is designed to disseminate the various research findings to the farmers through a chain of extension workers and to solve the problems of the farmers as and when they come up. The Directorate trains under-graduates and post-graduates for employment in the Department of Agriculture and allied institutions. It also educates the chain of extension workers acting as its agents in the field. When progressive farmers come to the University with their problems, the Directorate educates them in the matter of solving the problem. Various categories of rural youth are also trained up by the Directorate in different branches of agriculture, so that they are gainfully employed in villages.

The University has a highly alert and active communication centre for the dissemination of all news about the University's activities. The Centre sees to it that all the research findings of the University reach the extension workers and the farming community without any delay, through all possible communication channels such as radio, newspapers and literature. It is the Communication Centre which

ultimately projects the brilliant image of the University to the public. It also assists the University staff in writing and publishing the research findings through various visual aids. The Centre has a sophisticated offset printing press, the photo section and a section of artists. The Centre also control the Central Exhibition and Museum located in the University.

There are two Training Centres for farmers, run by the University—one in Coimbatore and the other in Madurai. These Centres look after the training programme of the rural youth and farmers.

Farm Advisory Council

Another important instrument with which the University is rendering invaluable service to the farmers is the Farm Advisory Council. There are two such Councils, one at Coimbatore and the other at Madurai. Functioning under the Directorate of Extension Education, these Councils offer expert advisory services to the farmers. These services are made available at the very doors of the farmers to solve their difficult problems in the field of agriculture. The moment any particular problem of the farmer is identified, top experts of the concerned Departments in the University visit the problem areas, discuss the problem with the farmers and evolve methods of solving it. Whenever solutions are elusive, experts undertake research work in the University so as to find a solution.

There is a National Demonstration Scheme through which the University demonstrates all the findings of agricultural research to the farmers. This scheme is the main link between the farmers on the one hand and the University and the research workers of the University on the other.

The Directorate of Extension Education organises discussion groups for farmers to enable them to absorb the scientific knowhow devised in the University. Elaborate questions are raised in the discussion groups and ready answers obtained.

The Extension Education Directorate is also arranging in-service training to the officers of the Govt.

Departments and public undertakings as also to the executives of private institutions.

About the training facilities offered to the farmers, the Vice-Chancellor stressed the important role played by the correspondence courses of the University. These courses are conducted for a nominal fee from the candidates. Dr. Rangaswami said : "The courses are as oriented that all the practical aspects of agriculture are covered. Figures and drawings are sent to the candidates along with literature. We receive a number of applications for these course, but the selections for the 40 seats available for each course is made through strict screening. At the end of the course, the candidates are brought to the University campus for direct contact. They remain in the campus for three days, contacting the Farm Advisory Council, Heads of Departments and Professors. So far, as many as 250 persons have been given training through correspondence courses."

Agro-Climatic Region Set-up

Commending the way the farmers are making use of the extension services, the Vice-Chancellor expressed the view that if specialists were posted in each district, it would be more effective. He advocated the formation of an agricultural centre in each agro-climatic region. He cited the example of Kaveripattinam Research Station, which, situated in an area of 50 acres, is multi-disciplinary, dealing with crops, forestry, fisheries, animal husbandry, poultry etc. It is a unique experiment. We have suggested five such centres in Tamil Nadu—one each in Tiruchi, Tirunelveli, Tanjore, North Arcot and Chingleput." Dr. Rangaswami regretted that new ideas and new programmes were not being given proper encouragement. "Strangling research work, harmful not only to the present generation but to the future generations as well. In the matter of agriculture, an integrated approach is very necessary and it is the duty of the Government to do all in its power to encourage it," he added.

About the Farm Advisory Councils, the Vice-Chancellor said that these councils could be more effective if each block had an association

of farmers, which will present the agricultural problems of the area to the Councils. He felt that the State Department of Agriculture could help informing the associations.

The Tamil Nadu Agricultural University maintains contact with the other Agricultural Universities in the country through the Indian Council of Agricultural Research. There is an association of Agricultural Universities, composed of all the Vice-Chancellors. The Association meets once in three months to discuss problems of mutual importance and also to enable the Vice-Chancellors to compare notes.

A Master Plan for the development of the Coimbatore Agricultural University over the next 12 years has been prepared by Dr. Rangaswami. Three World Bank teams which visited the University have very strongly supported its development programmes on the lines of the Master Plan and have recommended substantial official assistance to the University. Dr. Rangaswami

has obtained for the University an amount of Rs. 40.2 lakhs from the Ford Foundation for developing the Departments of Rural Sociology and Agricultural Economics.

Any new projects in the offing? The Vice-Chancellor replied that his University was interested in new areas of activity. A four year B.Sc. course in Silviculture is to be started in the University as an experiment. This may come through in 1975. Dr. Rangaswami also said that two new Departments, one of Biochemistry and the other of Agro-Industries, were to be opened in the University. The proposal had been approved by the Board and the search for talents was on. The Vice-Chancellor added with agreeable pride that during the three years of the University's existence, the number of Departments had increased from 11 to 25. He also said that the number of research workers in the University had risen from 400 to 720.

All the recurring items of expenditure of the University amount-

ing to Rs. 165 lakhs are met by the Government of Tamil Nadu, while the Central Government extends its assistance to the University for all non-recurring items. So far, the Centre has given to the University about Rs. 96 lakhs. For research alone the Centre has given Rs. 65 lakhs.

Dr. Rangaswami concluded by saying that unless Agriculture was introduced as a compulsory subject in schools, it would be very difficult to bring the rural youth into the mainstream of Indian life. "The farm youth does not recognise agriculture as a dignified subject; he completes his school or college education and manages to move away from agriculture which is his natural avocation, because he considers it beneath his dignity to go back to his village. Unless a correct notion is inducted into his mind at a very young age, he will not take to agriculture. That is why I want the Government to introduce agriculture as a compulsory subject in schools."

THE GREAT IMMORTALISER PAPER

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LEATHER REIGNS SUPREME

Man has known for thousands of years the art of dressing the skins of animals to preserve them and to make them soft and flexible. The early cave men had discovered that the skins could be made into foot covering and clothing. It is no surprise therefore that the use of leather and leather articles figure in our ancient literature. The Silappathikaram mentions that one of the streets of Poompuhar was earmarked exclusively for those employed in the leather craft. Therefore, it is evident that the leather industry was cultivated as a fine art even as early as 2,000 years ago.

The hides and skins of all animals can be tanned. Cattle hides are by far the most important raw material for tanners. But the skins of calves, sheep and goats are also tanned on a large scale. Other types of leather are provided by skins of reptiles such as snakes, alligators and lizards.

Today, leather is important for its use in shoes. Leather is also

exceedingly important for other uses, such as industrial belting for power transmissions, harnesses and saddles, gloves, jackets and other clothing, luggage, upholstery and sports equipment.

Today is the age of synthetics. From textiles to utensils, almost every article is made from synthetics. **In spite of many attempts to replace leather by synthetics, leather reigns supreme.** In fact, leather finds newer uses.

The use of leather to protect oneself from the cold in cold countries is widely practised. Gloves and closed shoes are considered essential items of wear like skirts, jackets and coats. The wearer gives as much importance to the selection of these items as well as maintaining them. **A suitable synthetic providing man with equal comfort has yet to be found to replace leather.**

The unique insulating properties of leather, as garment material has made a comeback, but in a more sophisticated form. In the cold countries, especially in the west, the comeback of leather has had such an impact that it is considered as a status symbol to own leather clothing. This is highly significant to our country. Since India is one of the biggest producers of goat and sheep skins that are most suited for producing garment leather.

Leather—A Foreign Exchange Earner

India has a fine tradition in the exports of leather and holds an important place on the leather map of the world. It earns a sizeable amount of foreign exchange and occupies the second place in the list of export commodities. Export of leather alone earned Rs. 189 crores in 1973—74 by way of foreign exchange, representing 77 percent of our total exports in that year. It secured 9.7 per cent of our total exports in 72—73.

Changing pattern of leather export :

India has been exporting E.I. tanned hides and skins which used to be the raw material for the importers in the west. Today, the pattern of leather export is slowly



FASHIONS GROW WITH LEATHER
GARMENTS

changing. The content of finished leathers and leather manufactures in exports has been steadily increasing as is evident from the overleaf following figures :

Tanning :

Tanning is one of the oldest crafts known to man. A unique process known as East India (E.I.) tanning was developed in and around Madras about 200 years ago. The products viz., E.I. semi tanned leathers are exported from India to all parts of the world, especially the developed countries where they are much sought after. The E.I. tanned goat and sheep skins of superior quality are especially prized in the western markets where they are converted into sophisticated leather goods. East India tanned leather is famous all over the world. The tannage is peculiar to India and cannot be duplicated elsewhere. Good tensile strength is a characteristic of hides and skins tanned in India. Tanning in India has been raised to the level of an art.

The premodinant tanning areas are in and around Madras and in certain other centres like Ambur,



Breath-taking beautiful leather-stole, produced in India now capturing foreign markets,

Vaniyambadi, Erode, Dindigul and Tiruchy. There are many tanneries around Bombay. Calcutta, Agra and Kanpur are other important tanning centres. The organised tanneries are fed by raw materials which flow into these areas from all over the country through a complicated distribution of network.

The Government of India is aware of the importance of the leather industry to the national economy. It has taken a number of measures to boost up the export of finished leathers, footwear and leather goods which, with added values over the semi-finished leathers, could contribute to the foreign exchange earnings in a more significant manner. As a result the export of raw goat skins has been completely banned and quota system has been introduced for the export of semi-finished E.I. and blue chrome hides and skins. This will cut down the export of such leather which will act as an incentive for tanners to take up the manufacture of finished leathers and leather products including footwear.

In this task the Central Leather Research Institute has been playing a significant role to put India on the leather map of the world.

The Central Leather Research Institute was set up in the year 1952 to promote leather research with a view to modernize the industry and bring it on a par with industry in the West. The immediate target of the institute was to develop and promote indigenous know-how for making finished leathers and leather goods, so that the industry's earnings and consequently the nation's wealth would increase. In addition to carrying out both fundamental and applied research, the Institute helps the Indian Leather Industry in a number of ways.

Importance of Research Data :

For the planned and organized growth of any industry, statistical data regarding resources, availability of raw materials, export etc., are very essential. Such information about the tanning industry has never been available before. The C.L.R.I. has carried out techno-economic surveys in a number of states, and this will come in handy when new units are to be set up.

INDIA'S PATTERN OF EXPORTS OF LEATHER AND ALLIED PRODUCTS (PERCENTAGE SHARE IN TOTAL)

		1961-62	1965-66	1968-69	1972-73	1973-74
1. Raw skins	..	24.4	22.8	6.1	0.4	0.8
2. E.I. Skins	..	44.9	46.7	47.1	42.8	34.8
3. E.I. hides	..	20.4	13.1	14.1	11.7	12.6
4. Blue chrome hides and skins	..	..	1.0	21.2	28.3	33.3
5. Finished leather	..	4.8	3.5	1.9	9.3	8.9
6. Leather goods	..	0.4	0.7	1.3	2.2	4.1
7. Leather footwear	..	5.2	12.2	8.3	5.3	5.5
Total exports value (in Crores of rupees)		35	44	86	189	188

Blue Print for the Leather Industry :

Entrepreneurs and tanners could approach the Institute for plans, project reports and blue prints to enable them to set up new enterprises.

Extension Work :

For dissemination of information, the Institute publishes monthly journals, bulletins and brochures. The most important activity in this field is the extension work done by the extension staff. Whether one is a cottage tanner doing his work in a hut or in the open in a village or a modernized sector industrialist, newer processes are given demonstration of in his unit, under his own conditions of work. This naturally, results in better methodology being put into immediate use.

Technical Know-how :

The important activity of the Institute is service to the developing industry. Regional Centres have been established in various parts of the country which render assistance in solving the day to day problems of the tanners. The regional centres are at Rajkot, Jullundur, Kanpur and Calcutta. These centres arrange

for demonstrations of the numerous processes developed by the Institute for the manufacture of a variety of leathers. Processes for shoeuppers, glazed kid, clothing leather, shrunken buffalo, sports-goods leathers have all been demonstrated. As a result of such demonstrations more clothing and glazed kid leathers are exported than ever before. Fashion leathers like tie and dye leathers and printed leathers have been introduced into western market. These are entirely based on the Institute's know-how. The Institute is also in a position to supply know-how even to the developed countries e.g., processes for wet-leathers.

Leather Auxilliaries and Machinery :

For the manufacture of leathers meant for special and sophisticated uses, suitable chemicals, finishing auxiliaries and machines are very essential. The C.L.R.I. has achieved notable progress in these spheres as well. Products like finishing agents, tanning agents, synthetic tanning materials, leather lubricating agents (fat liquors) have all been developed from indigenous materials. These have been tested extensively and handed over to the various industries.

Another important material imported in large quantities is wattlebark extract. Substitutes for wattlebark and extract are being made, for the use of the industry. With the exception of certain sophisticated auxiliaries required for finishing export quality leathers, India is practically self-reliant regarding her needs of leather chemicals. The C.L.R.I. plays a major role in the developing of these auxiliaries.

The Institute has made some of the engineering industries to get interested in the manufacture of various types of machines required for leather manufacture. A few, if not all of the machineries are now made indigenously. An ambitious programme is under way currently to make sophisticated machinery required for finishing leathers.

Leather Products Development :

In addition to the efforts to help the leather industry in all possible ways, the C.L.R.I. has drawn up a programme for research on footwear, leather goods, travel goods etc. If instead of finished leather, finished goods are exported, the value of the country's earnings could be doubled or even trebled.

The U.N.D.P. is lending a helping hand in this project to train the personnel.

Training Facilities :

Training of personnel at all levels for employment by industry, Government organisations for teaching and research could well be described as the main important activity of the Institute's services network. In this sphere, training to meet the individual requirements of the tanners receive high priority.

Academic Courses :

The Institute has actively associated itself with the University of Madras in training students for the B. Tech. and M. Tech. Degrees in Leather Technology. The Institute has also given training to a number of persons from developing countries from Asia and Africa. Plans are also afoot to establish an international training centre in the campus.

Refresher Courses are also conducted periodically for the benefit of the technicians and other staff from the industry. These courses help to keep them abreast with the changing trends in leather production and latest finishing techniques.

Deputation of Staff :

It is a matter of pride that the Institute staff have been deputed to countries in Asia and Africa as F.A.O. and U.N. experts. A team of experts from the institute was sent to Iran at the latter's request for organising and setting up a *Research cum Training Centre* at Teheran.

Leather Week :

A "Leather Week" is held every year which is a unique event, when technical symposia are held and discussions of topical interest take place. Organisations like L.E.P.C., S.I.S.I. also participate in these deliberations. This is an occasion which affords an opportunity for technologists, chemists and tanners to get-together and discuss problems and exchange views about the industry. Practical demonstrations are carried out for the benefit of the tanners. The highlight of the leather week is a fashion parade which focuses attention on the latest developments in fashion and technology.

Thus, the leather industry appears to be making rapid progress in the right direction and the Central Leather Research Institute appears to play a very important role in this.



*Organisers and participants of the fashion parade sporting the latest in leather clothing.
The winsome teenagers are the trend setters.*

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DIPR

The Special Employment Exchanges for Physically Handicapped in the country were started with the noble aim of rehabilitating the handicapped by placing them in suitable employment. Eleven Special Employment Exchanges are functioning in our country at present, one of which is in Madras City.

The Special Employment for Physically Handicapped in Madras was started in the year 1962. Its services are available to all the handicapped in the State of Tamil Nadu. The following categories of physically handicapped are eligible for employment assistance through the Special Employment Office for Physically Handicapped.

The three categories of handicapped viz., Deaf, Blind and Orthopaedically handicapped are clearly defined and only those who conform to the definition are considered for employment assistance.

Objective : The objective underlying the employment assistance rendered by the Special Employment Office for Physically Handicapped is to ensure that "however much a physical handicapped might limit a person's choice of occupation it does not, of itself, constitute a bar to his economic employment. The aim is to assist such a person to undertake the most skilled work of which he is capable and to secure him satisfactory settlement."

Placement of the Handicapped
The primary function of the Special Employment Office for Physically Handicapped is to find suitable job positions for the handicapped. This is being carried out through what is known as selective placement. The process of selective placement involves a study of various occupations in the industry with regard to their job content and specifications and fixing such of those handicapped whose residuary skills match the job requirements.

Statistical Appreciation: In total there are 2,238 (383 woman) handicapped individuals on the Live Registers of the Special Employment Exchange as on 31-1-1975. Of them, 383 are blind, 279 are Deaf and 1,576 are Orthopaedically handicapped. Among the handicapped on the Live Register there are 383 woman on the list. Woman handicapped constitutes 17.1% of the number on the Live Register.

Functions of Special Employment Exchange For Physically Handicapped.

While a majority of the orthopaedically handicapped persons with Minimum General Educational Qualification is placed in clerical and allied cadres in public services, the deaf and the blind are placed in employment in public and private sector units depending upon the availability of job openings suitable to them. The avowed objective of placement of the handicapped is achieved by personally canvassing vacancies suitable to them in various establishments. Personal visits to the establishments and continuous contacts with them by the officer in charge of the Special Employment Office for Physically Handicapped play a vital role in securing suitable jobs for the handicapped. With all the constraints present in the process of placement of the handicapped, the Special Employment Office for Physically Handicapped, Madras has been able to place so far as many as 1,557 handicapped in various jobs.

Concessions and Relaxations
With a view to speeding up of the Vocational rehabilitation of the handicapped, the Government of Tamil Nadu and the Government of India have accorded several concessions and relaxation to the handicapped in the matter of recruitment to public services. The following are the concessions granted by the Government of Tamil Nadu.

- (c) Though there is no reservation of jobs for the physically handicapped the State Government have instructed its departments to consider cases of physically handicapped persons for appointment sympathetically and have also indicated certain posts as suitable for physically handicapped and hence to be filled up by physically handicapped as far as possible.

The Government of India have granted the following concessions :

- (a) Upper age limit is relaxed by 5 years.
- (b) Priority III in the matter of employment assistance through Employment Exchange.
- (c) Exemption from possessing Typewriting in the case of people certified by Special Medical Board that they are unable to acquire this qualification due to the physical disability.

Additional Functions Performed
In addition to placement work, the Special Employment Office for Physically Handicapped gives Vocational Guidance to Physically Handicapped persons and collects information about the size of the problem and the special needs of handicapped persons. The functions include enlisting the co-operation of employers in engaging Physically Handicapped persons, establishing liaison and co-operation with other agencies engaged in helping the handicapped and taking follow-up action in respect of persons placed in employment to ensure that they settle down satisfactorily in employment. Information on training and educational facilities for the physically handicapped available in the country is also collected and disseminated to the needy handicapped.

Special Assistance Rendered

Sometimes physically handicapped persons are sent to various employers for trade testing and during such trial periods, they are given financial assistance by the Special Employment Office for Physically Handicapped. At the time of first recruitment, the handicapped are

- (a) Upper age limit for entry into Government Service has been relaxed upto ten years.

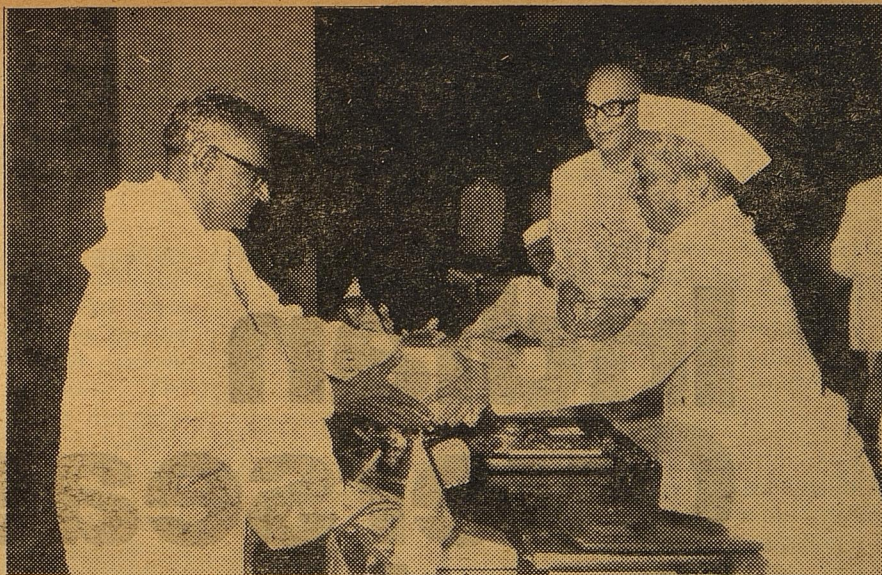
- (b) Physically handicapped persons are accorded priority III in the matter of employment assistance through Employment Exchanges.

always accompanied by an officer preferably the Technical Officer (Placement), of the Special Employment Office for Physically Handicapped and they are introduced to the employer. The Technical Officer also helps the handicapped to get over technical difficulty, if any, felt by the handicapped in performing the task by suggesting necessary modifications in the machinery. Care is taken to see that the handicapped are treated on par with other able bodied workers in the establishment in the matter of service conditions, pay etc.

Special Medical Board : A Special Medical Board consisting of medical experts attached to the Special Employment Office for Physically Handicapped is functioning in the City of Madras. As and when handicapped candidates are selected for appointment by Government departments and advised to produce Medical Certificate, such cases are referred to the Special Employment Office for Physically Handicapped which in turn makes arrangement to convene the Special Medical Board and examine the selected candidates. They are examined by the Special Medical Board with reference to the physical disability and its adverse impact on the performance of the job for which they are selected. Remuneration to the medical specialists for examining these cases is paid by the Government.

Advisory Committee : An Advisory Committee for the Special Employment Office for Physically Handicapped with representatives of Government, Labour Employers and other Social Service Organisations functions with a view to advise and help the State Director and Special Employment Office for Physically Handicapped on problems affecting the employment of the handicapped in the State. The Committee normally meets twice in a year.

World Day of the Disabled: In order to focus the attention of the public in general and the employing agencies in particular on the problems of rehabilitation of the handicapped, a World Day of the Disabled is celebrated on the third Sunday of March every year. This opportunity is utilised to encourage outstanding employer, and the most efficient employees by presenting them with Awards.

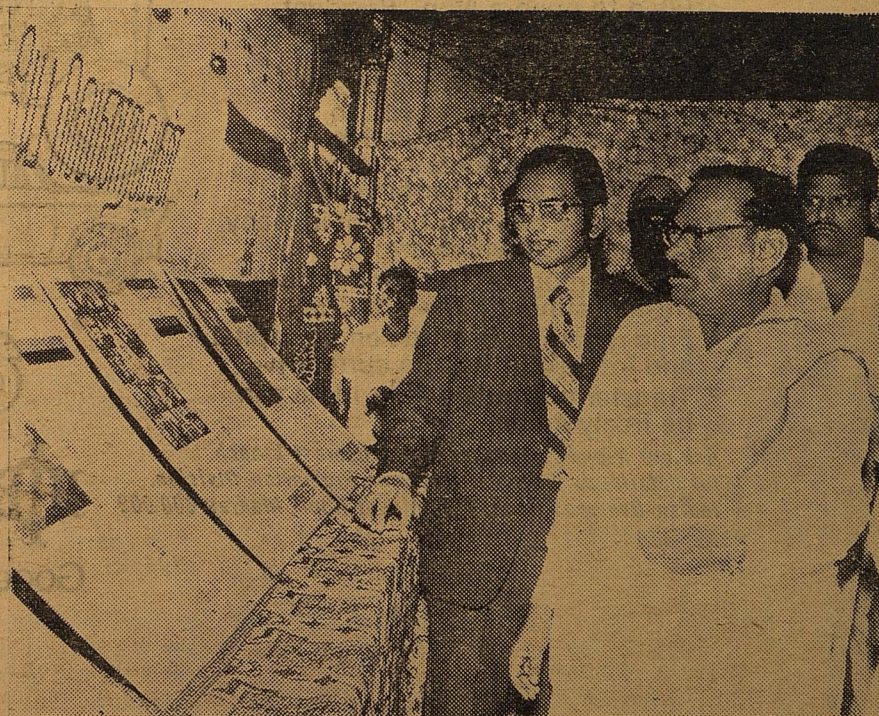


The Doughty Crusador Jeeva Bandhu

The Animal Welfare Board, India, while conferring the title 'Prani Mitra' on the doughty warrior of animal sacrifice and cruelty to animals, Jeevabandhu Thiru T. S. Sripal, has said in its citation :

"Pioneers like Jeevabandhu Thiru T. S. Sripal deserve to be recognised by our nation for their selfless and untiring service." Jeevabandhu Thiru T.S. Sripal, it will be fitting to add, is a devout and unostentatious Jain who continues to serve the cause he had so cheerfully taken up five decades ago. He is an Honorary Animal Welfare Officer of the Animal Welfare Board.

An earlier recognition won by the Jeevabandhu was in connection with the 2,500th year of Nirvana of Theerthankara Mahavira, when the title of "Samaja Rathna" was conferred on him by Shri B. D. Jatti Vice-President of India, on 29th, October, 1974 at New Delhi on behalf of Veer Nirvana Bharathi Samithi of Meerut in recognition of his great contribution to Jain culture and literature and in token thereof was presented a Gold Medal, a Cash prize of Rs. 2,500/- and a Kashmir Shawl.



As Part of the Mahavira 2500th Nirvana Year Exhibitions on the Life of the Thirthankara are now held in Districts. Here one such Exhibition held in Tiruchi on 9-2-75 was declared open by Minister Anbil Dharmalingam.

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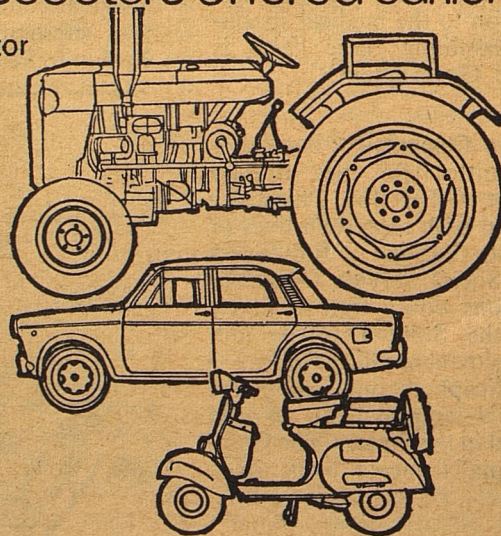
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Spotlight on Employment Situation in Tamilnadu During November 1974

Employment Exchanges have experienced shortage of qualified personnel in respect of various occupations, for which vacancies were notified to them. For some occupations shortages were felt every month by the Employment Exchanges, while for some other occupations shortages felt have been only periodic. The following are the occupations for which the Employment Exchanges have experienced shortage of suitably qualified personnel during the month of November, 1974. In order that the readers may benefit, full details of qualification etc., prescribed for these occupations, including information on communal reservation is given against the occupations. This is published to help job seekers.

DETAILS OF SHORTAGE OCCUPATIONS ON EXCHANGEWISE EXPERIENCE

*Sl. Occupations Reported
No. to be in short supply* *Details about the qualifica-
tion, experience prescribed
and the reasons for the short-
age as furnished by field
officers*

(1)	(2)	(3)
1. Road Roller Driver	Candidates who have passed VIII Std. and possessing Heavy Driving Licence with previous experience in driving Road Roller and below 30 years of age are not available.	
2. Assistant/Typist (Reserved for S.C.)	S.C. candidates with P.U.C. and Higher Grade qualification in Typewriting (40 w.p.m.) with two years experience in a commercial/Public Sector Undertakings are not available.	
3. Assistant (Reserved for S.T.)	S.T. Graduates with two years experience in a commercial/Public Sector Undertakings are not available.	
4. Assistant (Reserved for S.C.)	S.C. Graduates with two years experience in a commercial/Public Sector Undertakings are not available.	
5. Staff Nurse (Reserved for S.C.)	S.C. candidates qualified as Staff Nurse and registered in the Council are not available inspite of unlimited circulation.	

6. Works Assistant Grade I (Reserved for S.C.)	S.C. candidates who have passed Diploma in Civil Engineering course and with previous experience in Public Works Department are not available in spite of unlimited circulation.	
7. Medical Social Worker Priority (Reserved for S.T.)	S.T. candidates with minimum general educational qualification and below 30 years of age are not available.	
8. Driver—Electric Fork Lift and Elec- tric Reach Truck Priority (Reserved for S.T.)	S.T. (Priority) candidates who have passed primary school standard with two years experience in maintenance and operation of motors and batteries and are in possession of Wireman's Licence issued by the Wireman's Licencing Board are not available.	
9. Nurse Grade I Women—Reserved for S.T.—Priority and Non-Priority	S.T. (Women) Matriculate candidates and registered as 'A' Grade Nurse and Mid-wives are not available.	
10. Junior Mechanical Assistant—Men— Reserved for S.T. —Non-Priority	S.T. candidates who have passed matriculation and Diploma or Certificate in Mechanical, Electrical Engineering are not available.	
11. Pharmacist—Men —Reserved for .ST. —Priority and Non- Priority	S.T. candidates who have passed Matriculation or equivalent and Diploma in Pharmacy are not available.	
12. Siddha Pharmacist Priority	Candidates who have passed Siddha Pharmacy Courses are not available.	
13. Assistant Engineer (Mechanical)	Candidates who have passed Diploma in Mechanical Engineering from a Recognised Technical Institute and have undergone two years apprenticeship in Sugar Industry and with 5 years experience as Sugar Factory Assistant Engineer (Mechanical) are not available.	
14. Craft Instructor (B.C./O.C.)	Candidates who have completed S.S.L.C. and Craft Higher Grade with T.T.C. (Weaving) and below 30 years are not available.	

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- | | | | |
|---|--|--|--|
| 15. Draughtsmen Gr. III
Priority—Reserved
for S.C./S.T. | S.C./S.T. candidates who have passed Diploma in Civil Engineering are not available. | 24. Mate—Men—priority
Reserved for
S.T. | Men S.T. Priority candidates passed Diploma in Civil Engineering or I.T.I. Draughtsmen Course or with experience in Civil Engineering Construction works and below 30 years are not available. |
| 16. Typist —Priority
(Reserved for S.C./
S.T.) | S.C./S.T. candidates passed S.S.L.C. and qualified in English and Tamil Typewriting both by Higher Grade and possessing policy size typewriter are not available. | 25. Health Assistant
Reserved for S.C./
S.T. Priority | S.C./S.T. candidates who have passed III Form and undergone training in Malaria Control in a Regional Malaria Organisation of the State are not available. |
| 17. Mechanic Gr. III
Priority—Reserved
for S.C. | S.C. candidates who have passed Diploma in Mechanical Engineering or Automobile Engineering with 2 years experience in any of the Workshops in the Repairs of Tractors Bulldozers Compressors and Drill are not available. | 26. Weaving Instructor
(B.C./O.C priority) | Completed S.S.L.C. in passed Craft Instructor's Weaving Course in Teacher's College, Saidapet or completed S.S.L.C. with Teacher's Training Certificate by Lower Grade in Weaving are not available. |
| 18. Junior Basic Teacher | Unmarried lady candidates who have passed Junior Basic Training below 30 years of age are not available. | 27. Health Visitor | Candidates possessing Government Diploma for Health Visitors granted by the Board of Examiners, Madras and below 38 years of age are not available. |
| 19. Maternity Assistant
Reserved for S.C./
S.T./B.C. | S.C./S.T. candidates who have passed Midwifery Course and Registered in the Council and Backward Class, Priority candidates passed Midwifery Course are not available even after unlimited circulation. | Placement effected through the efforts of the Employment Exchanges | |
| 20. Telephone Operator
Reserved for S.T. | S.T. candidates, passed Matriculation or its equivalent with 30 w.p.m. speed in Typewriting and experience in PBX Board are not available even after unlimited circulation. | I. Total number of applicants placed in employment : 2,590 | |
| 21. Health Assistant
Reserved for S.C./
S.T. | S.C./S.T., Priority candidates, passed S.S.L.C. and Sanitary Inspectors Course are not available. | a. Out of (1) above number of Ex-servicemen placed in employment .. 95 | |
| 22. Draughtsmen Gr. III
(Reserved for S.C./
S.T.) | S.C./S.T. candidates, passed diploma in Civil Engineering with one years experience are not available. | b. Number of Physically Handicapped applicants placed in employment .. 36 | |
| 23. Steno-Typist
Reserved for Ex-Servicemen | Ex-servicemen with Typewriting Higher Grade, Short-hand Lower Grade and with previous experience are not available. | c. Number of repatriates placed in Employment—
Burma Repatriates .. 17
Sri Lanka .. 30 | |
| | | d. Number of post-Graduates and professional degree holders placed in employment .. 45 | |
| | | II. Other Services rendered by the Department : | |
| | | a. Number of guidance talks delivered at Schools by Vocational Guidance Officers of the Employment Exchanges .. 10 | |
| | | b. Number of applicants who received guidance in the matter of choosing their careers .. 1,387 | |

THE CONSTITUTION REFERS TO US AS UNION OF STATES

In the beginning of the Budget Speech I had referred to the uncertainties in Centre-State financial relationships and had pointed out that we had to balance the needs of both progress and prudence in formulating our Budget. The deficit in the Revenue Budget as well as in the overall Budget can be fully covered if we receive the assistance we expect from the Centre for Plan schemes and drought relief. We have practised economy wherever possible. Our State has been second to none in India in the conservation and mobilisation of resources for development. The real question is not whether in a particular year there is a deficit or not. What is relevant is whether the financial relationships between the Centre and the States are such that there could be adequate development in order to meet progressively all the needs of the people. The award of the Sixth Finance Commission which came into force last year was disappointing to us. As I had pointed out in my last Budget Speech "The only reward that States like ours which have mobilised resources to the extent possible and prudently managed their development activities has been the denial of a fair share from the common pool of finances by using the statistics of our development to give additional assistance to other States." Since then the position has further worsened because of expenditures which were not taken into account by the Finance Commission on dearness allowance increases, introduction of prohibition and drought relief.

The award of the Finance Commission which is given once in five years is itself arrived at without full consideration for the differing needs, resources and capabilities of States in our large and diverse country. Added to this, there is no mechanism for taking care of the financial vicissitudes which affect us in the interim period between two Finance Commissions.

Our difficulties arise from the fact that our fiscal powers are limited, we do not receive our due share in national resources and we have no voice in the management of

WE DEMAND

ONLY FULL

RECOGNITION

OF THIS FACT.

the national economy. At the same time we have to bear the consequences of deficit financing and taxation by the Centre. I have to emphasise that while our State has the ability to implement a larger Plan, the Centre has failed to make this possible by not providing the requisite support and assistance.

In its very first Article, our Constitution defines India as a "Union of States." This definition can be given meaning and content only if decisions are openly and jointly taken by the Centre, in full consultation with all the States. What is necessary in the present set up is for the Centre to take decisions in complete partnership with the States in the spirit of a genuine federation. The present Constitution under which the Centre is the Deity dispensing favours and States are Devotees seeking them should be radically restructured. This is the objective of the Resolution on State Autonomy which this House has passed. In our beloved land of India which extends from Kanyakumari to Kashmir, there was originally a three-fold divisions of States. States such as the present Maharashtra and Tamil Nadu were Part-A States. States such as Kashmir and Hyderabad were in Part-B and smaller States such as Coorg were in Part-C. When the States were reorganised on a linguistic basis these three classifications were replaced and all the States were brought on par except smaller territories like Pondicherry which were directly under Central Administration. All democrats are bound to recognise that when the National Development Council is convened in Delhi, every State, apart from the

Union Territories, who are represented at that table should have the same powers. I wish to emphasise that there should be no disparities in powers as between different States and that all the States in India should have full autonomy with joint-rule at the Centre.

In the words of Anna,

"Our only anxiety is that the Centre desires to take on burden which it cannot carry. We must accept that the strength of the Centre is no more than the combined strength of individual States. This alone is logical and this alone is good both for politics and in practice. It is untenable to argue that the Centre shall have all the rights and powers while the States should limp. If powers are concentrated at the Centre not only will the States become weak but the Centre will not become any stronger. Let us consider all the responsibilities other than national defence. Let the States assume all the powers they need. Let them, thereafter, willingly give the Centre the remaining powers. It is the States which are close to the joys and sorrows of the people—not the Centre. Therefore, it is wrong to argue that only a strong Centre can solve all problems. If there is hesitation in giving autonomy to the States, the Centre will have to bear unduly large burdens which might divert it from its crucial responsibilities such as national defence. This is our fear. The demand for State autonomy was borne with the object of changing the present system where overall and residuary powers are with the Centre."

This was the testament of Anna in 1968, when he was the Chief Minister of Tamil Nadu. Our goal is to realise his ideals in full measure. We request the Union Government to accede to this demand and the people of Tamil Nadu to create the right conditions for this demand to be met.

[From Budget Speech]

Rapid Green
Revolution



Legal
Distribution
of Land to
the Poor



Slum
Clearance



Welfare of
Backward
Classes

Free Education
up to P.U.C.



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HELP THE
STATE?**



*Despite these achievements
Rising Population Raises Problems*

SURELY YOU CAN

PLANNING YOUR FAMILY

DEPARTMENT OF HEALTH SERVICES AND FAMILY PLANNING

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FOR A REAL
INSIGHT INTO

Tamil Culture

Kaveripoompattinam, known as Poompuhar in its more fortunate days was a well laid out port town which boasted of a separate settlement for the foreigners. Much of the archaeological remains still are there for us to see.

In addition, the recently constructed art gallery is the first attempt, after many centuries, at group-sculpture for which Tamil Nadu is justly famous. In the form of group-sculpture and also in individual figures a remarkable edifice to recreate the life and times of the Tamil classic "Silappathikaram" Story of of the Anklet has come up at Kaveripoompattinam in its art gallery.

FOR FURTHER DETAILS

CONTACT:

RECEPTION OFFICER,

Poompuhar Art Gallery
[VIA] Sirkali, Thanjavur Dist.

