



2

# Tamil Arasu

MARCH 1978 50 Ps.

செய்தி

The ulcer of untouchability has gone so deep down that it seems to pervade our life.

When untouchability is rooted out no one will consider himself superior to any other. Naturally, exploitation too will cease and co-operation will be the order of the day.

**Mahathma Gandhi.**



# Editor's Page

The Tamil Nadu Budget is a rural-oriented budget. Schemes have been drawn up for providing mobile health facilities, ensuring potable water supply in localities which do not have a water source, durable all-weather type roads, more loans for housing etc., to meet the needs of the rural people. This will come in handy for research students.

The N.C.C. contingent from Tamil Nadu and Pondicherry has won laurels by winning the banner for the eighth time. Naturally the corridors of the Colleges resonate with sounds of footfalls full of pride.

The Prime Minister has laid stress on the importance of N.C.C. training to the youth, while presenting the banner to the winning contingent.

While congratulating the N.C.C. cadets the Chief Minister Thiru M.G.R., has advocated the discipline it inculcates in the students both physically and mentally, shaping them to play a better role in life.

There is an interesting feature—an interview with a charming and gracious lady.

The plight of the settlers of Indian Origin in the far-east is indeed one of great misery. Under the bilateral agreement reached between India and Sri Lanka, the repatriates have been returning home since 1964. The repatriates are of Tamil Origin. Numerous problems are involved in rehabilitating them. They have to be provided with housing, employment etc., Selvi P.T. Saraswati, Minister for Social Welfare who is also incharge of Rehabilitation gives a vivid picture of the repatriates being rehabilitated.

“Ba” was not only “mother” to her children, but “mother” to the whole nation. An appraisal of Kasturba, a woman of great simplicity, honesty, devotion, yet with a will of her own walked hand-in-hand with the Father of the Nation in not only redeeming the people from the slavery of Imperial rule, but, also from the clutches of superstitious beliefs and unhygienic practices.

India has entered the Satellite age. The many advances made in Satellite Technology appears in a brief write-up.

An article claiming the superiority of Indian drugs over synthetic drugs appears in this issue.

---

Volume

No.

VIII

# Tamil Arasu

March 1978

Issue

No.

10

# Prime Minister

## Thiru Morarji Desai

### Stresses Importance of N. C. C. Training

The Prime Minister, Thiru Morarji Desai, has stressed the importance of physical education to youth and students as a spur for enhancing mental faculties.

Addressing the "Prime Minister's N.C.C. Rally," he said the training imparted by the National Cadet Corps was good and useful. The drill helped both body and mind.

Contingents of cadets from various States also held a cultural pageant to depict the folk dances in various parts of the country.

The Prime Minister gave away prizes to winners of various competitions.

The N.C.C. organisation in this State has always been in the forefront in bringing credit and laurels to Tamil Nadu. It is a matter of great pride that our cadets have won the coveted All India Championship Banner seven times in the past. Retaining the Banner for the eighth time during the current year and winning the same successively for years bear eloquent testimony to the fighting qualities of the cadets of Tamil Nadu and Pondicherry.

The following were adjudged the best cadets :

C.M.O. Anoop Kumar Chandrok Vivekananda College, Madras was adjudged as All India Best Boy Cadet Senior Division.

S.V.D. Owenita Rodrigues, Holy Cross College, Trichy was adjudged as Third Best Girl Cadet, Senior Division.

The Inter Directorate Championship Banner was first instituted in the year 1964 after the formation of the Directorates. Since then the Championship was won seven times out of the Thirteen by Tamil Nadu and Pondicherry Directorate viz., 1962, 1968, 1971, 1973, 1974, 1975, 1977.

A separate cultural contingent from the Tamil Nadu and Pondicherry Directorates was also sent to Delhi for the Republic Day competition. This team secured 4 prizes in the cultural competition and our contingent was adjudged as the third best.

In addition to the other rolling trophies that we have won, the Director-General, N.C.C. decided that a separate permanent trophy should be awarded to the Tamil Nadu and Pondicherry contingent for having won the Inter Directorate Championship Banner seven times.

---

#### COVER PAGE

Senior under officer Owenita Rodrigues of Holy Cross College, Tiruchi (Tamil Nadu Unit) receiving the championship banner from the Prime Minister THIRU MORARJI DESAI, at the N. C. C. Rally in New Delhi on January 27.

---

# CHIEF MINISTER SPEAKS

The Chief Minister, Thiru M.G. Ramachandran; exhorted the cadets of Tamil Nadu and Pondicherry to join the three defence services and serve the nation. They should not simply stop with receiving training at the National Cadet Corps but should make use of it after they completed their studies.

Felicitating the N.C.C. Republic Day contingent of Tamil Nadu and Pondicherry for winning the All India Inter-Directorate Championship Banner this year at a function organised by the N.C.C. Directorate at Queen Mary's College, Thiru Ramachandran called upon the students to utilise their knowledge,



training and experience for the public cause and not for their own good alone.

The Chief Minister said while the students could take interest in politics and know the historic, social and cultural background of the country, they should not fall a prey to the machinations of the politicians. Nor should there be quarrel among the students on political grounds.

Thiru Ramachandran announced a donation of Rs. 25,000 from the Chief Minister's Public Relief Fund to the N.C.C. Directorate of Tamil Nadu and Pondicherry and gave away shields and trophies awarded to the contingent at Delhi.



*The Chief Minister Thiru M.G.R. presented a trophy to Thiru Appanna, N.C.C. Cadet of the Presidency College on 3-2-78 at a function when trophies for the best cadets were given.*

**rugged  
reliable**

# **RUSTON Marine Engines**

The best investment. Here's why.

### **World Famous Design**

Ruston marine engines have won fishermen's confidence the world over because of their dependability, design and trouble-free performance.

### **Better Fuel Economy**

An area in which Ruston are world leaders. The extra you pay for a Ruston engine can be recovered in a year's time. Ask a Ruston fisherman. He will tell you all about it.

### **Spares Availability**

Economically priced genuine Ruston marine engine spares are easy to get from Greaves Service Centres & Dealers.

### **Greaves Service**

Our coastal Service Centres are as near as your nearest port. They are manned by factory-trained mechanics who give you efficient after-sales service in the Greaves tradition.

### **Easy Maintenance**

Unlike diesel engines of other makes, Ruston marine engines have access windows and individual cylinder heads which make it possible to maintain and repair them without removal from the boat.

### **David Brown Marine Gear Box**

Every Ruston marine engine is fitted with the world-famous David Brown marine gear box.

It is simple in design, rugged in construction, easy to maintain and safe even in unskilled hands.

### **Air-Cooled and Water-Cooled**

Now Ruston marine engines are available in both water-cooled and air-cooled versions on a quick delivery basis.



Sold and Serviced by

**GREAVES COTTON & CO. LTD.**

Bombay • Madras • New Delhi • Calcutta • Ahmedabad  
Bangalore • Bhubaneswar • Cochin • Cpmbatore • Goa  
Hyderabad • Visakhapatnam

**A** decision has been taken at the national level to terminate the Fifth Plan with the current year and to initiate a new five-year Rolling Plan with effect from 1978-79. Pending finalisation of the new five-year Plan, the Annual Plan for 1978-79 has been formulated against the original perspective of the Fifth Plan which was initiated in 1974-75. The Plan outlay for Tamil Nadu for the five-year period 1974-79, as approved by the National Development Council, was Rs. 1,122 crores. In the first four years of this period ending with the current year, we expect to spend Rs. 864 crores on the Plan. We have provided for an outlay of Rs. 305 crores for the Annual Plan in 1978-79. This is Rs. 45 crores or 17 per cent higher than the approved Plan outlay of Rs. 260 crores for the current year indicating the Government's concern for increasing developmental outlays. The total Plan expenditure during 1974-79 will be of the order of Rs. 1,169 crores and at a level higher than the outlay approved by the National Development Council.

In the Budget, our basic objective has been to further increase the Plan outlay with priority being given to rural areas and the weaker sections. The provisions in the Plan for major sectors are : Power — Rs. 114 crores ; Irrigation — Rs. 24.9 crores ; Agriculture and allied sectors— Rs. 44.6 crores ; Industry —Rs. 13.5 crores ; Transport and communications — Rs. 28.3 crores; water-supply and Sewerage — Rs. 27.3 crores ; Education — Rs. 16.7 crores ; and Other Social and Economic Services — Rs. 35.7 crores. I might point out that the Plan provisions include an outlay of Rs. 10.5 crores representing spill-over expenditure on works connected with the repair and restoration of cyclone and flood affected irrigation sources roads and sand-cast lands.

#### **Agriculture and Allied Sectors :**

Due to the efforts taken by the Government to ensure adequate supply of water in the Cauvery system, it was possible to raise kuruvai crop over the normal area of 4 lakh acres. We had anticipated a bumper crop of kuruvai but our hopes were not realised because of the damage caused by the cyclone and floods. However, our alert

**Additional Taxation measures to net Rs. 9.95 crores were proposed by the Finance Minister Thiru K. Manoharan, who presented a Rs. 34.05 crore-deficit budget for the year 1978-79.**

**After taking into account the yield from the proposed tax changes, the net budgetary gap is estimated at Rs. 24.35 crores and this, the Minister said, would have to be covered by "the joint efforts of the Centre and the State". He pointed out that the Centre had been approached for additional assistance towards — meeting the expenditure on cyclone and flood relief.**

## **RURAL ORIENTED BUDGET**

**Thiru K. MANOHARAN,**  
Hon'ble Minister for Finance.

and resourceful farmers, assisted by the relief measures given by Government, came forward to resume agricultural operations in the affected areas. We, therefore, anticipate that agricultural production in the current year will not fall far short of the original targets. In 1978-79, we are aiming at a target of 87 lakh tonnes of foodgrains, 14.3 lakh tonnes of sugarcane (gur), 15.7 lakh tonnes of oil seeds and 4.2 lakh bales of cotton. Honourable Members are aware that Government have decided that open market purchases of paddy will be made directly from farmers at the incentive price of Rs. 90 per quintal for coarse varieties and Rs. 95 for medium varieties.

The overall Plan outlay for the agricultural sector in 1978-79 will be Rs. 15.57 crores. Necessary provisions have been made in the Plan for various agricultural development programmes such as strengthening of seed farms, schemes for the increased production of pulses and millets, intensive coconut development in Kanyakumari, Ramanathapuram and Coimbatore and planting of large departmental orchards in Salem and South Arcot. All the districts will be covered with farmer's training centres with the opening of new centres in Ramanathapuram, Salem and the Nilgiris. An independent seed certification agency will be set up with a view to ensure that there is strict quality control on improved seeds distributed to farmers. We have attached high priority to soil conservation programmes which can create significant



employment in rural areas. A provision of Rs. 3.34 crores has been made for this purpose in the Budget. In dry farming areas, along with soil conservation, projects will be taken up to store and utilise water through pond schemes and other modern methods for moisture conservation. A provision of Rs. 1.1 crores has been made for the development of roads in sugarcane farm areas.

Animal Husbandry programmes are of direct benefit in safeguarding and supplementing the income of our agriculturists. Provisions have been made in the Budget for the revival of 16 key village blocks, opening of 10 new veterinary dispensaries, up-

gradation of 7 veterinary dispensaries and hospitals with increased facilities and the establishment of two animal disease intelligence units. The Intensive Cattle Development Project which is already being implemented in the districts of Tirunelveli, Thanjavur, Pudukkottai and Madurai will be extended to Tiruchirappalli in the coming year.

Under Dairy Development, a provision of Rs. 16.5 lakhs has been made for strengthening the Thiruchi-Srirangam and the Salem Co-operative Milk Supply Unions. This will enable these societies to increase the quantity of milk distribution in two of our major urban areas.

A provision of Rs. 1.43 crores has been made in the Plan for the Fisheries sector. This includes substantial provisions for the development of inland fisheries in various reservoirs in the State. In keeping with our policy of ensuring a better price to fishermen we have provided Rs. 3.25 lakhs towards share capital participation, loan and subsidy for the strengthening of fishermen co-operative societies. A provision of Rs. 92.4 lakhs has been made for assistance to the Tamil Nadu Fisheries Development Corporation which is engaged in the production and distribution of mechanised boats. The Fisheries Development Corporation will set up a number of retail outlets throughout the State for marketing fish at reasonable prices. This scheme, besides assuring a steady market to fishermen, will create wide employment opportunities. Rupees one crore has been provided for the Fishermen Housing Scheme.

Forests are not only a source of natural wealth but also provide the exchequer with an important source of revenue from the sale of forest produce. A provision of Rs. 4.2 crores has been made for plantation schemes in the coming year. We propose to set up processing industries based on sandalwood and other forest produce. These will be remunerative and will also provide employment. A provision of Rs. 11 lakhs has been made for providing roads and staff quarters in interior forest areas. In addition, Rs. 8 lakhs have been provided for building 100 houses for workers in the Government Cinchona plantations.

We have a diversified co-operative sector in Tamil Nadu. The

co-operative credit structure deals with production, land development and consumption credit. Co-operatives are engaged in wholesale and retail trade, storage in rural areas, processing of agricultural commodities and fertiliser distribution. Housing, handlooms, industry, textiles and sugar production are other important fields in which the co-operative movement has made itself felt. We have made a provision of Rs. 7.41 crores under the Plan for this sector. A provision of Rs. 1.6 crores has been made for Government's participation in the programmes of the State Land Development Bank which will enable them to achieve a lending level of Rs. 19 crores in the coming year. Consumption credit in the form of jewel loans to be provided by co-operatives is expected to reach the level of Rs. 70 crores in 1978-79 as compared to about Rs. 40 crores last year. Provisions have been made for strengthening the share capital structure of co-operative credit societies as also for providing them with strong rooms in order to encourage a larger volume of jewel loans. Internal resources in the co-operative credit system will have to be strengthened so that it will be in a better position to provide relief to agriculturists who are affected from time to time by natural calamities such as drought and floods. For this purpose, a provision of Rs. 50 lakhs has been made as Government contribution to the agricultural relief and guarantee funds of co-operative credit institutions.

The House is aware that it is the policy of Government to establish fair price shops to serve all revenue villages which are not already covered. This scheme will be implemented in the current year in Kanyakumari, Tirunelveli, Ramanathapuram and Madurai districts. We have provided Rs. 2 crores in the Budget for extending the scheme in a phased manner to the remaining districts.

### **Irrigation**

In the current year, seven irrigation schemes are expected to be completed. They will benefit about 32,500 acres of new area and stabilise irrigation in about 1,13,500 acres. A number of new medium irrigation schemes are currently under investigation mainly in the Pennar and Vaippar basins. These will benefit the drought-prone districts of Dhar-

mapuri and Ramanathapuram. A provision of Rs. one crore has been made in the Budget for expenditure in the coming year on the new schemes to be taken up after detailed examination.

The scope for new major and medium irrigation schemes in Tamil Nadu is getting limited on account of the significant utilisation of surface flow water which has already been achieved. In this context, a significant achievement in the current year is the agreement we have reached with Kerala that the feasibility of utilising waters from west-flowing rivers in Tamil Nadu will be studied. Within the State, we will necessarily have to concentrate on the modernisation of the old irrigation systems, extension of ayacut wherever possible and on the conservation and better utilisation of water from minor irrigation sources. The work of modernisation of the Cauvery Delta System will be continued during the coming year with a provision of Rs. 2 crores. The project for improvements to the Periyar-Vaigai irrigation system which is being assisted by the World Bank, is now under implementation. A provision of Rs. 10.94 crores has been made for this project in 1978-79. A provision of Rs. 3 crores has been made for the Parambikulam-Aliyar Canal System including the extension of its ayacut.

The Budget contains a provision of Rs. 4.21 crores for the special minor irrigation programmes and desilting and reclamation of tanks. A major tank modernisation project will be initiated in 1978-79. Under this programme, work will be executed for increasing the holding capacity and the efficiency of the large tanks in the State having an ayacut of 500 acres or more. In addition, programmes will be put through for better water use and management in farmers' fields, combined with agronomic advice for obtaining the maximum benefit from available water. We have formulated a major programme with an outlay of Rs. 111 crores for this purpose. The World Bank have shown interest in the project and we propose to seek their assistance for implementing it. Initially, 12 tanks will be taken up in 1978-79 as a pilot project. In the context of the constraints that have begun to appear in groundwater availability, it is also necessary to experiment with ground-water development through public irrigation wells,

water from which could be shared among several farmers. A pilot project in this regard will be initiated in the coming year in East Ramana-nathapuram. Sharing of water by several farmers will not only conserve ground-water but also provide the basis for co-operative farming in future in areas where individual holdings are small. This is, therefore, an important initiative.

### Power

The Annual Plan provides for a very significant step-up in the outlay on Power from Rs. 95 crores in the current year to Rs. 114 crores in 1978-79. Two units of 210 MW each are under implementation at an estimated cost of Rs. 141 crores in Tuticorin. Apart from expediting their commissioning, we have obtained the approval of the Centre in the current year to proceed with a third unit of equal capacity at an outlay of Rs. 71 crores. The Power Plan includes a total provision of Rs. 56.04 crores for the three units of the Tuticorin Thermal Project. The first unit will be commissioned in the coming year and the other two units will be completed in 1979-80 and 1980-81. The completion of the Tuticorin project will give a major impetus to small industries, ground-water utilisation and rural electrification in the Southern districts, particularly in the backward areas. A provision of Rs. 32.5 crores has been made for transmission and distribution. This investment will result in improving the efficiency and quality of power supply and in the reduction of line losses. The other major provision in the Power sector is Rs. 11.5 crores for the rural electrification programme. With supplemental funds from financial institutions, this will enable the energisation of about 35,000 pumpsets in the coming year.

The outlook for increased power availability in Tamil Nadu has considerably brightened with the indication that the Central Government have decided to go ahead with the second mine-cut at Neyveli based upon which a thermal power plant of 630MW capacity will be added to the Tamil Nadu grid. We have urged the Centre to expedite the implementation of this long-awaited project and ensure that the benefits from this investment are made available in the shortest possible time. In view of the considerable time involved in the investigation, sanction and completion of power projects and the

visible constraints in regard to future additions to hydel and thermal capacity, the investigation of a second nuclear project in Tamil Nadu needs to be taken up without further delay. Along with it, definite and concrete steps are necessary for expediting the commissioning of the long-delayed Kalpakkam nuclear plant. We trust that the Centre will take due note of these requirements and concerns of Tamil Nadu and ensure that power generation keeps pace with the growing demands for agricultural and industrial uses in our State and in the Southern region as a whole.

### Large and Medium Industries

The declared policy of our Government is to encourage small industries and village and cottage industries in the rural areas. At the same time, we shall give every encouragement and support to the establishment and proper functioning of large industries in the State which are employment-intensive or are based on the utilisation of local raw materials or are engaged in the manufacture of mass consumption items. A provision of Rs. 8.57 crores has been made in the Plan for the Tamil Nadu Industrial Development Corporation (TIDCO), State Industries Promotion Corporation of Tamil Nadu (SIPCOT), Tamil Nadu Small Industries Development Corporation (SIDCO), Tamil Nadu Industrial Development Corporation (SIDCO), Tamil Nadu Industrial Investment Corporation (TIIC) and the Tamil Nadu Sugar Corporation (TASCO) which are engaged in the promotion and development of large and other industries. The public sector cement plant at Ariyalur which is being executed by TIDCO is expected to be commissioned in September 1978. The sugar plant at Perambalur has started crushing. The next sugar project will be established in the co-operative sector near Tirukoilur. Provision has been made for beginning work on one more sugar plant in the coming year. We had already announced our policy to develop the black granite industry in the public sector. A provision of Rs. 20 lakhs has been made in the Budget for share capital assistance to the State Mineral Development Corporation which has been set up for this purpose. A proposal for the establishment of a 250-ton per day newsprint plant based on bagasse at a cost of Rs. 100 crores is under active examination.

Textiles are the oldest and most employment-intensive industry in the large scale sector. The problems of modernisation and rehabilitation of this industry have been long neglected with the result that many textile units have fallen sick. We would urge that the Centre should urgently formulate and implement a policy at the national level for taking over the management of sick textile units with participation by labour. On our part, we have not hesitated to extend Government assistance for the revival of sick but potentially viable mills. As a result of these efforts, the Prakash Mills and Lotus Mills at Coimbatore and the Somasundara Mills in Ramanathapuram have been reopened safeguarding employment to 1,500 persons. The India Meters unit which had been closed for more than 3 years has been reopened with Government support and financial guarantee. This has restored employment to 276 persons and will provide further employment to 250 persons.

### URBAN DEVELOPMENT

The World Bank-assisted project for the integrated development of Madras City is making progress according to schedule. A provision of Rs. 12.43 crores has been made for this scheme in the Budget. In order to improve the living conditions of the urban poor in Madras, Madurai, Coimbatore and Tiruchirappalli a provision of Rs. 4.35 crores for the construction of tenements for erstwhile slum dwellers and Rs. 2 crores for the slum improvement programme have been made. A provision of Rs. 11.7 crores, inclusive of Life Insurance Corporation assistance of Rs. 6 crores, has been made in the Budget for urban water-supply and drainage schemes. This contains a provision of Rs. 4.88 crores for the implementation of the Siruvani water-supply scheme which will benefit Coimbatore. In 1978-79, 33 water-supply and drainage schemes will be completed and 41 new schemes will be started. Integrated schemes for the improvement of essential amenities in Madurai and Coimbatore will be taken up in the coming year. It has been our experience that while the pressing problems of larger cities and towns come to notice, smaller towns in the State continue to be neglected. Necessary steps will be taken to draw up and implement programmes for improving the amenities in smaller towns

and growth centres in various districts.

#### **Rural Development :**

Economists and politicians have, for a long time, drawn attention to the conflict of interest between workers and capitalists, the poor and the rich, the illiterate and the educated, backward and more advanced areas and the like. No one can deny that these disparities exist and should be removed. However, in the circumstances of our country, the most important inequality is that between rural and urban areas. This is the basic problem that was highlighted by Gandhiji and in our State by Anna. If we take, for instance, our annual Plans, we find that the per capita expenditure in rural areas is less than half of the per capita expenditure in urban areas. The rural areas have suffered from continued neglect as a result of which essential minimum needs such as schools, hospitals, drinking water, electricity, roads, banking facilities and retail outlets for essential consumer articles are still very much inadequate in the countryside. Skilled manpower in the form of doctors, engineers and highly qualified teachers tend to concentrate in urban centres and avoid the rural areas. It is not my purpose to suggest that there should be any reduction in essential expenditure for providing greater facilities and services in urban areas. We must, however, realise that these large expenditures on urban concentrations could have been avoided if productive opportunities and conditions of life in rural areas had been so upgraded that here was no incentive for migration to cities.

The policy of this Government is to correct this imbalance. Our programme is to increase the incomes of the rural population by the widespread provision of irrigation facilities, schemes for the development of agriculture, animal husbandry, dairying and fisheries. There is lack of employment in the villages in the off-season. Employment will have to be organised in the non-agricultural season, particularly for landless labour, on the maintenance and construction of medium and minor irrigation sources, roads, soil conservation and afforestation. In this background, the Land Army scheme announced earlier will be shortly implemented. There will have to be a major transformation in rural industrialisation through small-scale, village and

cottage industries. Our various programmes such as provision of fair price shops in each revenue village, extension of credit and marketing services to small farmers, fishermen and handloom weavers, programmes for rural water-supply, rural roads, vocational education in rural schools, adult literacy, rural health and rural housing constitute a major effort for upgrading the quality of life in rural areas.

These are major tasks and it will take several years for all villages to be benefited. Considering the magnitude of the challenge, Honourable Members might feel that the financial position does not permit sufficiently large allocations to the rural sector. As far as the Government is concerned, I wish to assure the House that village uplift is our highest priority. We shall increase outlays for the rural sector from year to year and we are determined to fare firmly forward in this revolutionary task. After all, even a journey of a thousand miles has to begin with its first few steps.

#### **Village Uplift Programme :**

Apart from Governmental programmes, rural people with some support from the State should take up several economic programmes on their own initiative on the basis of mutual co-operation. Village and cottage industries, fish cultivation in village ponds and tanks, farm forestry, desilting and maintenance of field channels, sericulture, production of quality seeds, vegetables and fruits, poultry, pig and sheep farming are examples of such programmes. They can provide the firm foundation for villages to become self-sufficient and to increase their incomes through outside sale by harnessing their own resources and manpower.

In the coming year, we shall take up this village uplift programme in groups of selected villages in backward areas and we shall extend the scheme on the basis of experience in a phased manner. The objective of this scheme is that people in our villages who are steeped in poverty should help themselves to achieve self-sufficiency and that villages should prosper to an extent where they become centres of growth like small towns.

#### **Rural Industries :**

We welcome the recent industrial policy statement of the Central Government which seeks to give

prominence and priority to the development of small-scale and village industries in the rural areas. This is in accordance with our own approach to industrialisation. We intend to move quickly in implementing this policy through the provision of necessary institutional mechanisms, financial and technical assistance and marketing facilities for the promotion of small-scale and village industries on the widest possible scale in the rural areas. We propose to set up District Industrial Centres in 7 districts in the coming year to promote small industries. These centres will help small entrepreneurs to identify investment opportunities and also with financial and marketing advice. They will function as centres for providing comprehensive assistance and advice to small industrialists. Government will shortly decide on concessions that can be given for promoting small industries in the rural sector with special emphasis on backward areas.

Adequate testing and other facilities will have to be provided for the small-scale sector to increase the quality of their output and become competitive with larger units. With this end in view, provision has been made for setting up a Regional Scientific and Industrial Laboratory at Tiruchirappalli. The Regional Testing Laboratory at Coimbatore will be expanded to provide testing facilities for pump manufacturers. Sericulture is an important industry in Tamil Nadu which can provide extensive employment and incomes. It is proposed to set up 20 industrial co-operative societies for sericulture reeling. The small-scale sector has become considerably stronger in recent years vis-a-vis larger units in the manufacture and marketing of matches. It is proposed to set up 50 industrial co-operatives for match-workers in the backward areas of Ramanathapuram and Tirunelveli. We have also provided for strengthening share capital participation in 6 industrial co-operative tea factories in the Nilgiris with the objective of encouraging small farmers engaged in this plantation industry. We propose to significantly increase employment by providing power ghanis to young entrepreneurs under the scheme being implemented by the Khadi and Village Industries Board.

The requirements of Government and public sector undertakings can be obtained to a large extent

from small-scale, village and cottage industries. Following this approach, Government will take specific steps to give all opportunities for small-scale, village and cottage industries and to guarantee and increase the market for those engaged in these industries.

#### **Handlooms and Khadi**

The development of handloom and khadi is a matter of primary concern to the Government. A substantial provision of Rs. 4 crores has been made in the Plan for handlooms and for khadi and village industries coming under the purview of the State Khadi and Village Industries Board. In addition, a provision of Rs. 1.5 crores will be available under the Central Sector and Centrally-sponsored schemes for handlooms. Honourable Members will be happy to know that due to the sustained marketing efforts of Co-optex and primary societies, handloom sales are expected to increase to Rs. 44 crores in the current year as compared to Rs. 37 crores in the previous year. The target for sales in the coming year will be Rs. 48 crores.

#### **Health :**

It is the birth-right of every citizen to expect the State to provide adequate and well-dispersed facilities for health and medical care since sound health is a basic requirement for the good life. The poorest person living in the most backward rural area of the State should have as much access to modern medical facilities as the urban dweller or a person who belongs to the upper classes of society. This is our ideal.

In the coming years, we propose to give a major thrust and impetus to rural health programmes. In the current year, a beginning has been made by providing two mobile medical teams in each of 24 Panchayat Unions. Under this scheme, the medical team visits each village once a week. Basic drugs are administered during the visit of the team. Timely action is taken to refer complicated cases to the primary health centre or taluk hospital or district hospital. The mobile health scheme is working satisfactorily and it is proposed to extend it to 100 additional Panchayat Unions in 1978-79. Our objective will be to cover the entire State, i.e., all the 383 primary health centres, with mobile health facilities in the next three years. In addition,

voluntary organisations are being assisted to open mini-health centres which can provide comprehensive health care to 1,000 families or a population of 5,000. Under this scheme, 54 mini-health centres have been sanctioned in the current year and it is proposed to open 50 such centres in 1978-79.

A number of new schemes will be taken up to strengthen the specialities in district, taluk and non-taluk hospitals and in Government dispensaries. Additional facilities will be provided at these places for such services as Dental, E.N.T., Orthopaedic and Ophthalmic clinics and Blood Banks. Provision has been made for constructing labour-cum-operation theatres in 6 Government dispensaries. Seven new Government dispensaries will be opened in backward areas of Ramanaapuram, Pudukkottai, Tiruchirappalli and North Arcot districts. Steps will be taken to rectify inadequacies in the functioning of existing rural dispensaries and primary health centres. The programme for immunisation of children will be extended to 25 additional primary health centres.

Our objective is to increase employment opportunities to medical graduates in the process of expanding rural health facilities. In the coming year, additional doctors will be appointed in 100 primary health centres. Employment will be provided to about 400 medical graduates in 1978-79 under various new schemes and in filling up normal vacancies.

#### **Education :**

Education has the pride of place in our Budget among all development programmes with an allocation of Rs. 180.9 crores. We have provided Rs. 4 crores in 1978-79 for the implementation of the 10 plus 2 plus 3 pattern. The higher secondary stage will be introduced in as many as 400 schools all over the State taking care to see that one such school is available as far as possible in each Panchayat Union area. To provide for additional enrolment at various stages of school education, 1,000 new secondary grade teachers will be appointed. In addition, provision has been made for the appointment of 200 Tamil teachers and 200 physical education teachers.

By and large, school buildings throughout the State need strengthening and improvement. A provi-

sion of Rs. 1.54 crores has been made in the Budget for school buildings. This significant provision should result in some definite improvement to school buildings. I might mention that we have provided for Rs. 1.1 crores in the current year itself for the restoration of school and college buildings affected by the cyclone and floods.

The quality of education can be improved only if a solution is found to the still serious problems of wastage and stagnation in school education in rural areas. The movement for non-formal education has this objective in view. There are already 1,500 centres for non-formal education functioning in the State. In the coming year, provision has been made to open 2 more centres in each block or a total of 748 centres.

We want the adult literary programme to become a universal movement. To achieve this objective, a new scheme will be introduced to assist voluntary organisations engaged in this field. Literacy should become the lever for rural development. For this purpose, simple books will be prepared and distributed to new literates on agriculture, village and cottage industries, co-operative movement, health and sanitation, nutrition, family welfare, animal husbandry and similar subjects.

A provision of Rs. 14 lakhs has been made in the Budget for the provision of additional laboratory facilities in schools. The Plan provision for Technical Education is Rs. 95 lakhs. A provision of Rs. 4 lakhs has been made for various new schemes relating to the Government Museum and the Department of Archaeology. An important programme in the field of higher education is the upgradation of Presidency College, Madras, into a centre for post-graduate studies. This Government will diversify schemes to encourage our youth to take active part in physical exercise and sports. A new scheme will be introduced for the extension of financial assistance to outstanding sportsmen who find themselves in poverty in their advanced age.

#### **Tamil Culture :**

I have great pleasure in announcing that we have decided to establish a Tamil Cultural Centre at Madras to honour the memory of Tamil savants like Kambar and Vallalar. This Centre will include

library and reading room facilities, an auditorium and exhibition halls. There is a close relationship between Tamil and Music. We have decided to establish a Music College at Madurai which will be affiliated to the Central College of Music at Madras. Rupees 2 lakhs will be provided to establish a Chair on Islamic Tamil Literature in the name of Umaru Pulavar in the Madurai University. In the past dramatic arts were held in high esteem in Tamil Nadu. In order to revive this art, a new scheme will be brought forward to train young students specially in drama along with general education and to promote and provide necessary facilities for talented student dramatic troupes. Efforts will be taken to protect and promote village and folk arts.

#### **Rural Drinking Water-Supply :**

In the current year, we had initiated a time bound programme for providing a good and adequate source of drinking water for all habitations which did not have a drinking water source at all within one kilometre or did not have a potable source of water. The allocation of Rs. 6.65 crores made for this purpose in the Budget was supplemented by an assistance of Rs. 1.40 crores from the Centre. Under this programme, 2,500 habitations with a population of 9 lakhs will be covered by the end of the current year. In 1978-79, we have made a budgetary provision of Rs. 7.9 crores for this programme. This allocation is expected to be supplemented to the extent of Rs. 4 to 5 crores from the Centre and from surplus funds of Panchayat Unions. One this basis, we may reasonably expect to cover the balance of 3,126 habitations with a population of 15 lakhs in the coming year. With the completion of this programme, we can claim with a sense of pride and satisfaction that there will be no village in Tamil Nadu which will have to go without drinking water.

The Tamil Nadu Water Supply and Drainage Board is also implementing a scheme for the proper maintenance of 15,000 hand pumps in the State. Under this scheme, 230 mechanics and 15 mobile teams are functioning. About 3,000 complaints per month on the average are being attended to.

#### **Rural Roads :**

Two schemes have been in operation in the State for providing

communication facilities for villages. The first scheme is the all-weather road scheme. Under the other scheme only gravelled roads are constructed and these are easily damaged or washed away due to heavy traffic, rain or floods. We have decided to replace these two schemes by a new scheme which will provide durable metalled roads throughout the State linking each village with bus routes and other main arteries under a phased programme. Culverts and small bridges will also be constructed wherever necessary. Link roads for the more important villages will be black-topped in the future in a phased manner. A provision of Rs. 5.7 crores has been made in the Budget for the construction and restoration of rural roads on these lines. It shall be our objective to make necessary provisions in the coming years for this scheme which is designed to provide all villages with durable link roads.

#### **Rural Housing :**

In my last Budget Speech, I had announced that 50 rural co-operative housing societies will be established in the current year. I am happy to inform the House that this has been done and efforts have been undertaken to enrol members in these societies with particular emphasis on the weaker sections. It is proposed to sanction 10,000 new loans for rural housing in the current co-operative year ending on June 30, 1978. We had earmarked Rs. 2 crores in the lending programme of the Tamil Nadu Co-operative Housing Society for rural housing in the current year. This amount will be increased to Rs. 3 crores in 1978-79. Special attention will be given to housing for handloom weavers under the co-operative housing scheme.

#### **Welfare of Harijans, Backward Classes and Tribals :**

The total allocation in the Budget for the welfare of Scheduled Castes, Scheduled Tribes and Backward Classes is Rs. 25 crores. Apart from provisions for the continuation of various welfare schemes in this sector, the Budget includes outlays for opening 24 hostels for students from Scheduled Castes and Backward Classes. A provision of Rs. 2.2 crores for the Harijan housing scheme and a provision of Rs. one crore for the Harijan house-sites scheme have been made. The annual income limit for admission

in hostels and for tuition fee concessions in respect of students belonging to Denotified Tribes and Backward Classes will be enhanced from Rs. 2,000 to Rs. 2,500.

A significant increase has been made to various provisions for the welfare and uplift of the tribal population. The outlay on the tribal sub-plan will be increased from Rs. 1.53 crores in 1977-78, to Rs. 2 crores in 1978-79. Two tribal residential schools will be set up in the Kalrayan Hills of South Arcot district. We shall take all necessary steps to eliminate the system of bonded labour and to rehabilitate those who have suffered injustice under this system.

The welfare of Scheduled Castes and Scheduled Tribes should not be viewed as a matter of merely providing them with housing facilities and educational concessions. Solid foundations for their lasting betterment can be made only if their economic condition, particularly in the villages, is improved. This aspect has been relatively neglected in the past and it is our policy to substantially increase the allocation for economic programmes which will benefit our Harijan population such as distribution of draught and milch cattle, sinking of irrigation wells, starting cottage industries, grant of trade loans and distribution of tools to skilled personnel. There is a provision of Rs. 36 lakhs for these purposes in the Budget. This will be used as seed capital to mobile institutional finance of the order of Rs. 1.5 to 2 crores in the coming year for expanding these programmes.

#### **Welfare of Women and Children :**

This Government has given high priority to the uplift of women, especially indigent widows and other women in straitened circumstances. In the last Budget, we had introduced certain new schemes to benefit destitute widows. These will be continued. At present, pensions are given only to destitute widows who are 45 years of age or above. This limit will be lowered to 40 years and 5,000 additional pensions will be provided at an annual cost of Rs. 12 lakhs. Provision has been made for opening a Service Home at Salem. A two-year condensed course for S.S.L.C. will be introduced at the Service Homes in Thanjavur and Cuddalore. Tailoring centres will be opened in Kanyakumari and Madurai. It is propos-

ed to start 3 chalk making units and 3 candle making units employing women, under the Department of Social Welfare. A provision of Rs. 27 lakhs has been made to assist voluntary institutions who undertake welfare activities for women and children in the districts. Priority will be given for increasing employment opportunities for destitute women under the schemes being implemented by the Khadi and Village Industries Board.

There are about 3,000 child welfare centres in the State which are engaged in activities such as nutrition, health care and pre-school education for children. We have made provision for an additional 200 child welfare centres in the coming year.

#### **Welfare of the Physically Handicapped**

A total provision of Rs. 83 lakhs has been made in the Budget for various schemes relating to the rehabilitation of the physically handicapped. This includes provisions for the distribution of hearing aids to 300 school children and tri-cycles to 500 deserving persons. In the coming year, an institute will be established in Madras to provide treatment and training for those with speech and hearing defects. A co-operative weaving society will be formed to train and employ blind persons in handloom weaving under which 100 persons will be benefited.

#### **Labour Welfare :**

Among the various sections of our working population, workers engaged in the beedi and handloom industries suffer under particularly unhygienic living and working conditions. These make them especially prone to tuberculosis. We propose to take up a scheme for the comprehensive survey, detection and treatment of this disease among the beedi and handloom workers in the four districts of Madras, North Arcot, Madurai and Salem with the aid of mobile medical units. In order to assist industrial workers to be aware of their rights and privileges, the Tamil Nadu Institute of Labour Studies will compile labour laws and regulations and publish them in Tamil. Another important scheme in this sector is the provision of subsidised housing schemes by the Housing Board for industrial workers. A provision of Rs. 20 lakhs has been included in the Budget for this scheme which

will be taken up in the first instance in areas of industrial concentration in the Chengalpattu, Madurai and Ramanathapuram districts.

#### **Tourism :**

In Tamil Nadu, there are many places of great scenic beauty to delight the tourists. In the field of tourism, apart from taking care of foreign tourists, we will have to create facilities for our own people to understand our culture and to enjoy themselves. With this objective, provision has been made for low-cost tourist facilities at Mamallapuram, Mandapam, Viralmalai, Avudayarkoil, Elagiri and Ootacamund. Arignar Anna was greatly attracted by the Pichavaram backwaters in South Arcot. It is proposed to develop this area into a tourist resort. A provision of Rs. 36 lakhs has been made in the Plan for Tourism.

#### **Other Sectors :**

We had initiated the free legal aid scheme in the current year. I am happy to inform the House that District Committees for this purpose have been formed in all the districts. A provision of Rs. 5.31 lakhs has been made in the Budget for this scheme which has started functioning on sound lines.

It is most unfortunate that serious irregularities have crept into the administration of temples. Several instances have come to light where idols and jewels have been stolen or substituted. Government are taking steps to ensure that these malpractices are thoroughly detected and do not recur. It is also necessary to safeguard the current incomes of religious endowments from lands and other assets owned by them. Action will have to be taken to recover and restore lands belonging to religious endowments which are under benami ownership or enjoyment. Only then can they function properly and the poorly-paid employees of these endowments protected from neglect. A provision of Rs. 17 lakhs for the protection of idols and bronzes and for renovation of temples has been made. A provision of Rs. 3 lakhs has been made for Wakf institutions. In addition, a provision of Rs. 3 lakhs each has been made by way of loans for the development of income-yielding assets in Hindu Religious and Charitable Endowments and in Wakf institutions.

In order to tone up the revenue administration, we have decided to

form a separate taluk with Kotagiri as headquarters in the Nilgiris district. Provision has been made for forming two revenue divisions in Kanyakumari district with headquarters at Nagercoil and Thukkalai. We are also initiating a phased programme for the modernisation of our Treasuries and Accounts system. In the first phase, the District Treasury at Madurai will be bifurcated and one more Pay and Accounts Office will be set up in Madras City. Various provisions have been made for strengthening the Registration Department. One more district registration office will be opened in 1978-79.

Better promotional opportunities will be provided for Policemen with the upgradation of the posts of 120 headconstables to the next higher level of Assistant Sub-Inspectors and 100 Grade II constables to the higher level of Grade I constables. I had mentioned in my last Budget Speech that we shall try to make increased provision for the Police Housing Scheme. I am happy to inform the House that as against an allocation of Rs. 38 lakhs for this purpose in the current year, we are providing Rs. 90 lakhs in 1978-79.

We are anxious that there should be greater enrolment to the Indian Army and other defence services from the young men of Tamil Nadu. For this purpose, a new scheme will be taken up to train able-bodied youth in various districts so as to make them fit for recruitment. Four camps to train 100 young men at each camp will be taken up in the first instance utilising the services of ex-servicemen. Special training facilities for students from Scheduled Castes and Scheduled Tribes will be provided to train them for recruitment at officers' level.

#### **Benefits to Employees :**

We had set up the Third Pay Commission with comprehensive terms of reference in August, 1977. The Pay Commission has been requested to expedite its report. Government have now decided that the increased benefits to employees, consequent on decisions to be taken on the Commission's report will be given effect to from 1st April, 1978 itself. I wish to point out that the Pay Commission's report is being implemented in the record time of less than 8 months from its appointment.

We have also decided to give a lump sum non-recurring relief of Rs. 25 to all employees whose pay was below Rs. 200 per month on 1st January, 1978 and of Rs. 15 to all employees whose pay was Rs. 200 or above per month on that date. This amount will be paid to them along with their salaries for March 1978 due on 1st April, 1978 from which date the increases consequent on the Pay Commission's report will accrue. This benefit will be available to all Government Employees, employees of local bodies and teachers in aided schools.

Along with upgradation of the emoluments of employees, it is equally important to simplify and streamline the needlessly complicated rules and regulations which affect their service conditions. We have decided to set up a Services Commission to go into this aspect of simplifying and modernising the service rules that govern various categories of Government employees.

#### **Financial Position :**

I shall now turn to the financial aspects of the Budget. The Budget Estimates for 1977-78 envisaged a revenue deficit of Rs. 30.16 crores and an overall deficit of Rs. 18.89 crores. In the Revised Estimates, the revenue deficit is estimated at Rs. 56.49 crores. The main reason for the large increase in the revenue deficit is the cyclone and flood expenditure. The impact of this expenditure on the revenue account is Rs. 36.62 crores. However, we have been able to contain the overall deficit to Rs. 19.71 crores which is only marginally higher than the original Budget Estimate.

Revenue receipts in 1978-79 are estimated at Rs. 680.08 crores and the expenditure on the revenue account at Rs. 726.76 crores resulting in a revenue deficit of Rs. 46.68 crores. The relatively large revenue deficit in the coming year is mainly due to the provision we have had to make for the initial estimated expenditure on pay revision. In addition, the spill-over expenditure arising from cyclone and flood relief expenditures will be Rs. 10 crores in the revenue account. The capital expenditure in 1978-79 will be Rs. 63.45 crores. The overall effect of the transactions in all accounts is now estimated to result in a deficit of Rs. 34.05 crores at the end of 1978-79. This figure includes the deficit of Rs. 19.71 crores at the beginning of the year which will be carried forward.

Our difficult financial position in the coming year is the result of three principal factors. Firstly, the loss on account of Prohibition increases from year to year and is estimated at Rs. 140 crores in 1978-79. Secondly, we will have to make allowance for a significant expenditure on pay revision. Thirdly, cyclone and flood relief expenditure will spill over in the coming year. In all these matters, whether it is the Prohibition loss or improved emoluments to employees or the relief of natural calamities, it has been our stand that adequate justice was not done to the States, and to Tamil Nadu in particular, in the award of the Sixth Finance Commission.

The Seventh Finance Commission recently visited Madras and we have had the opportunity to present our case to them for increased devolution and appropriate statutory grants for the five year period 1979-84. We have pointed out that national resources belong alike to the Centre and the States. We have urged the Finance Commission that they should ensure that these resources are allocated to the States in a manner fully consistent with the functions and responsibilities assigned to them under the Constitution. States should be provided with adequate and elastic resources which will be buoyant from year to year. In this view, we have strongly represented that the Corporation Tax should be made part of the divisible pool. We have pressed for full compensation for the loss arising from Prohibition as also for the additional expenditures that are cast on the State from time to time due to increases in dearness allowance. We have pointed out that assistance for the relief of natural calamities should not be deducted in the Plan period but provided in the form of additional assistance. We trust that our various representations before the Finance Commission will be given full and sympathetic consideration and that the award of the Finance Commission will result in an adequate transfer of resources to our State at least from 1979-80 onwards.

#### **Revisions in Tax Structure :**

The sizable deficit of Rs. 34 crores in the coming year has resulted after taking into account the liberal Central assistance for the Annual Plan. It has been our objective to ensure that advance Plan assistance received so far on account of natural

calamities does not affect the size of the Plan in 1978-79. It is a matter for satisfaction that we have received the full co-operation of the Centre in this matter and that we have been able to significantly increase the outlay on development in the coming year.

A measure of sacrifice on our own part to put through this massive effort will also be inevitable. The overall management of our finances will have to be based on continued economics in non-essential expenditure, due collection of taxes and ensuring the buoyancy of all sources of revenue. Some additional taxation not only to partially cover the deficit we face but also to enlarge our tax base in the future will be necessary. The following proposals in this regard have to be considered in this context fully appreciating that we have in each one of them tried to spare any additional burden for the common man.

My first proposal is in regard to motor vehicle taxation where we feel that the present structure of rates and costs permits some increase in the quarterly tax on stage carriages. We propose to increase the tax per seat per quarter on mofussil services by Rs. 15, on town services by Rs. 25 and on contract carriages by Rs. 80 from the quarter beginning 1st April, 1978. The tax for tourist contract carriages will be increased by Rs. 40.

At present, compensation on behalf of passengers and others who are killed or who suffer injuries in accidents in which buses are involved has to be obtained from the Motor Vehicles Accidents Claims Tribunal. This process not only involves delay but also causes considerable hardship and expenditure to the poorer victims. We have decided that one per cent of the entire receipts on motor vehicles tax amounting to about Rs. 50 lakhs will be credited annually to the Chief Minister's Public Relief Fund. An immediate cash grant of Rs. 1,000 in the case of death and graded payments for injuries will be made to the victims or families of victims of accidents in which buses, whether belonging to the State Transport Corporations or private operators, are involved. This cash grant will not affect any compensation from the Motor Vehicles Accidents Claims Tribunal.

We have reviewed our sales tax structure from the point of view of simplifying the large number

of rates which are now in force. As a measure of rationalisation, the single point sales tax on bullion will be raised from 1 per cent to 2 per cent ; on dressed hides and skins from 1.5 per cent to 2 per cent ; on cotton waste, cotton yarn waste, artificial silk yarn, staple fibre yarn, jari and cardamom from 3 per cent to 4 per cent ; and on soaps other than hand-made soap from 5.5 per cent to 6 per cent. The sales tax on kerosene will be reduced from 8.5 per cent to 8 per cent. We have proposed to increase the rate on machinery from 5 per cent to 6 per cent. The present rate on cement, industrial gases, stainless steel, paints and colours, plywood and glassware is 8 per cent. This is to be increased to 10 per cent. It is proposed to increase the tax on petrol and diesel by 2 paise per litre in each case. These changes will come into effect from 21st February, 1978.

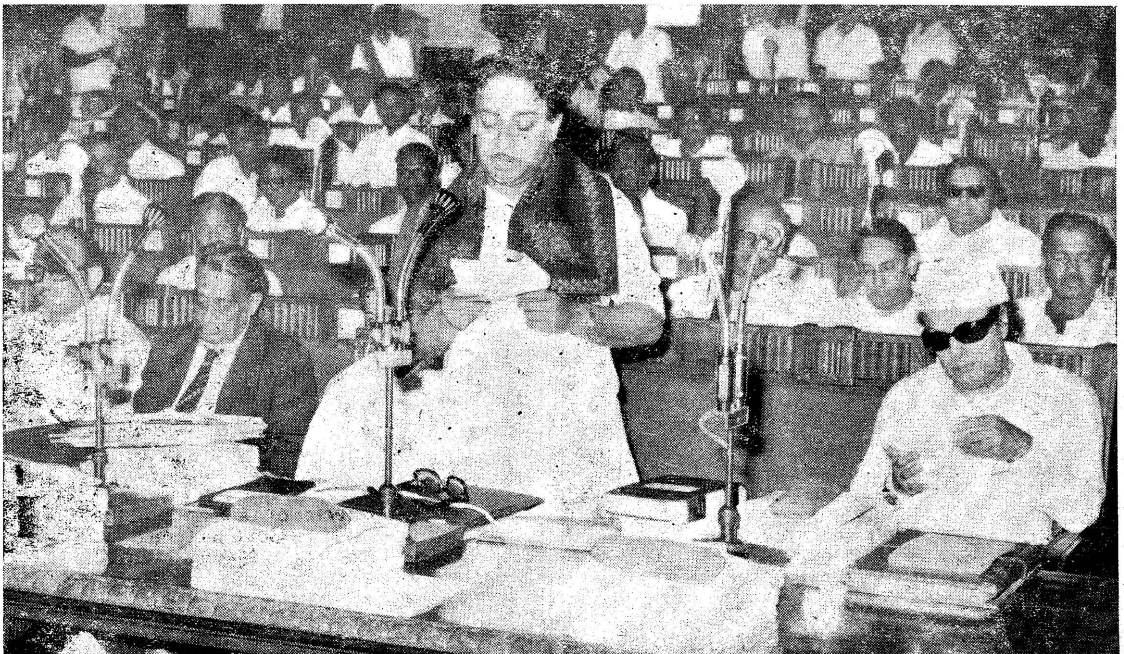
Commercial taxes are the most important source of revenue to Government. We are anxious that evasion and avoidance in the payment of these taxes and corruption and harassment in the collection process should be thoroughly eliminated. With this objective, a number of measures have already been taken. The introduction of a fixed levy in respect of Entertainment Tax in the case of touring cinemas and permanent and semi-permanent theatres in village panchayats, town

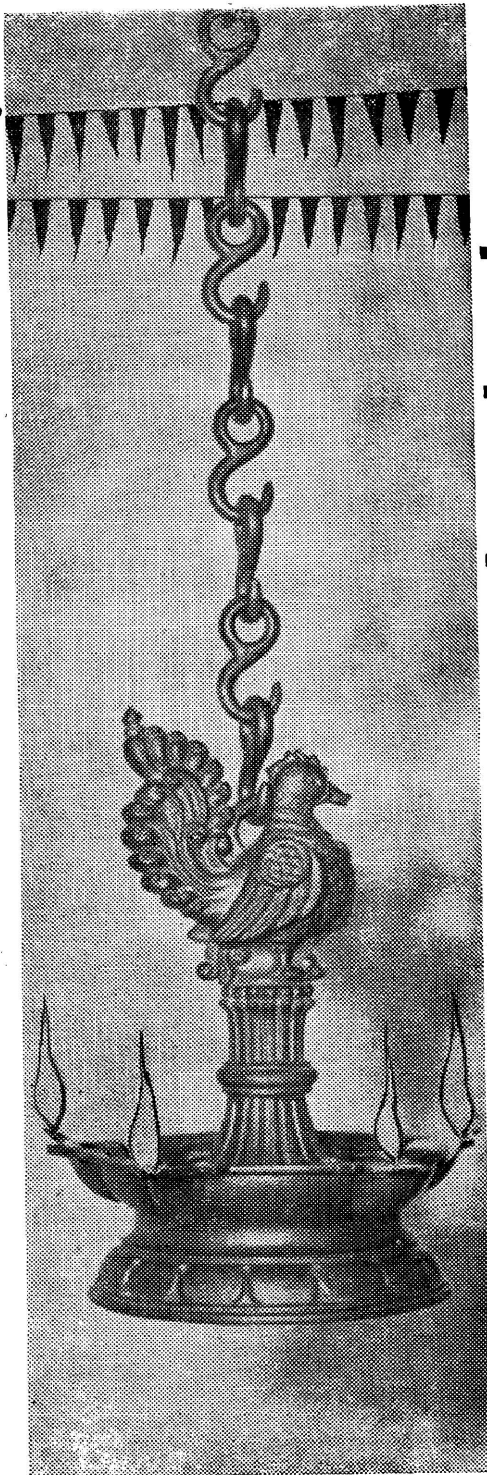
panchayats and Grade I and Grade II municipalities and the provision of summary assessment facilities to small dealers whose turn-over is less than Rs. one lakh are important steps in this direction. The Committee which we had announced to suggest changes in sales tax laws and regulations to reduce hardship to assesses, to improve collections and eliminate corruption has been set up. We have also now decided to reorganise and strengthen the intelligence, inspection and vigilance activities in the Commercial Taxes department under a suitable administrative set-up which will enable them to be undertaken in a co-ordinated manner. This reorganisation will be one more major step in our efforts to pursue vigilance as part of administrative reform.

In comparison with the income-tax rates and the agricultural income-tax structure in neighbouring States such as Kerala and Karnataka, some revisions are necessary in our agricultural income-tax structure. The exemption limit for return cases will be increased from Rs. 5,000 to Rs. 10,000. The rate structure for return cases will be revised reducing the tax in the lower income ranges from 20 per cent to 15 per cent between Rs. 10,000 and Rs. 15,000 ; from 30 per cent to 20 per cent between Rs. 15,000 and Rs. 20,000 ; from 35 per cent to 25 per cent between Rs. 20,000 to Rs. 25,000 ; and from 45 per cent to 30 per cent

between Rs. 25,000 and Rs. 30,000. A rate of 45 per cent will be levied between Rs. 30,000 to Rs. 50,000. At present all incomes at Rs. 50,000 and above bear a tax of 55 per cent. This rate will be continued for incomes between Rs. 40,000 and Rs. 70,000. We propose to introduce an element of progression by taxing incomes between Rs. 70,000 and Rs. 1,00,000 at 60 per cent and incomes above Rs. 1,00,000 at 65 per cent. The other main change that is proposed is to withdraw the compounding facility for plantation crops and to restrict it to 30 standard acres in respect of non-plantation crops. The new rates per standard acre for compounding cases will be Rs. 30 where the extent is between 10 to 15 standard acres ; Rs. 50 between 15 and 20 standard acres ; Rs. 70 between 20 and 25 standard acres ; and Rs. 90 between 25 and 30 standard acres. The norms for computing the standard acre will be revised and simplified. These changes will come into force from the assessment year ending on 31st March, 1979.

The estimated yield from all these measures will be Rs. 9.55 crores. The final deficit in the coming year will, therefore, be Rs. 24.5 crores. We have requested the Centre for additional assistance for cyclone and flood relief expenditure. The net deficit will have to be covered by the joint efforts of the Centre and the State.





**BRIGHTEN UP  
YOUR LIFE!**

**BUY TAMILNADU  
RAFFLE TICKETS**

**TAMIL NEW YEAR  
SPECIAL  
BUMPER DRAW**

2 SPECIAL FIRST PRIZES

**Rs. 5 LAKHS**  
EACH

3 SPECIAL SECOND PRIZES

**Rs. 1,00,000** EACH

2 FIRST PRIZES FOR EACH SERIES

**Rs. 50,000** each  
And many other prizes

**DRAW DATE: 20-4-1978**

**Cost per ticket Re. 1/- only**

**Total prize amount: Rs. 41 lakhs**  
**10 series—Total Prizes 13,075**



Issued by  
The Director of Tamilnadu Raffle  
Govt. of Tamilnadu  
Madras-600 002

# The Agri-Horticultural Society

The Agri-Horticultural Society has been successful in introducing new plant species. As a result there is a great demand from members of all categories of citizens indicating the keen interest shown by them in horticulture.

The Agri-Horticultural Society established in 1835, is one of the oldest and premier societies in India. The chief object of the Society is to promote Arbokiculture, besides Horticulture and Agriculture, including the introduction and propagation of new and useful plants both indigenous and exotic.

In pursuance of the aforesaid objectives, continuous steps are being taken to introduce new plant species in the society gardens. Wherever introductions are found successful, efforts are made to propagate and supply the same to members. In order to highlight the importance of this project, at the monthly Executive Committee Meeting, a general review is made to give further impetus to this activity.

Several improvements have been made in the garden such as relaying of flower beds, roads and foot paths so that members may conveniently go round the various sections in the gardens. The landscape has also undergone considerable change and improvement as a result of adoption of new and recent ideas on the subject. With the purchase of a new power Tiller, it has become possible to bring larger areas, hitherto neglected, under use for horticultural purposes.

The work relating to propagation of plants has been intensified. By adoption of better and new technique, it has been made possible to produce and supply to members rare

and special variety of plants. Substantial quantities of flower and vegetable seeds are produced in the society garden itself. The activities of the society have also increased by establishment of rapport with similar societies of the other States in India.

A new reciprocal project was initiated and implemented. By this scheme, institution members like colleges and establishments having large garden areas, supply plant and seed materials to the society on exchange basis, benefiting both the members and the society.

The interests of members are shown by way of gift of seeds and plants to the society for increasing the plant wealth. A noteworthy feature witnessed in the recent past is the phenomenal increase in the number of members of all categories indicating a greater measure of interest shown in horticulture by the citizens. A special mention need be made of several plant and seed materials supplied to foreign dignitaries during the year.

Several groups of students specializing in Horticulture Botany and Agriculture have started visiting the Society Gardens for study and reference. Children from the City Schools have also been regularly visiting the Society Gardens.

Prof. J. RAMACHANDRAN,  
*Honorary Secretary*





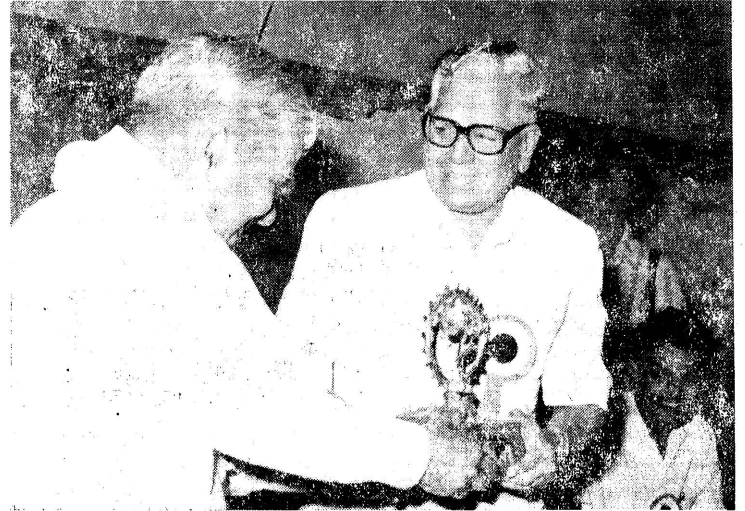
△ The Prime Minister Thiru Morarji Desai arrived at Meenambakkam Airport on 11-2-78 on his way to Sydney. The Governor Thiru Prabudas Patwari and the Minister for Finance Thiru K. Manoharan are seen with the Prime Minister.



△ The Union Home Minister Thiru Charan Singh arrived in Madras on 6-2-78 from Sri Lanka. The Chief Minister Thiru M.G.R., received him at the Airport.



△ The Punjab Day was Celebrated at the All India Tourist Trade Fair on 6-2-78. The Punjab Minister for Tourism Sardar Sugdev Singh Dinsa presented a memento to the Chief Minister Thiru M.G.R.



△ Thiru P. Ramachandran, Union Minister for Energy who presided over the 20th Anniversary Celebration of the Guindy Industrial Estate and Manufactures Association on 9-2-78, presented a memento to Thiru R. Venkataraman, M.P.

## news in pictures



△ Major-General H. K. Bakshi, Director-General N.C.C., Called on the Chief Minister Thiru M.G.R. at his residence on 16-2-78.

▽ Under the Group Insurance Scheme introduced on behalf of the Govt. of Tamil Nadu to help the employees of Panchayat Union and local schools a Cheque for Rs. 150/- was presented as the first instalment for 1978 by Thiru S. Rangarajan, Chairman of the LIC to the Minister for Finance Thiru K. Manoharan on 18-2-78.



△ The Chairman of the Legislative Council Thiru C. P. Chittrarasu passed away on 16-2-78. The Chief Minister Thiru M.G.R. placed a wreath, as a mark of respect.

The CARE, Madras presented a cheque for Rs. 5 lakhs as second instalment to Selvi P. T. Saraswathy, Minister for Social Welfare on 10-2-78 towards the purchase of cattle for distribution to victims of the cyclone. ▷



# New life in their mother land

The rehabilitation of repatriates is a problem which is acutely felt. In order to understand the problem and the measures that are being taken by the government, the Minister for Social Welfare, Selvi P. T. Saraswathi who is also in charge of rehabilitation in an interview tells the "Tamil Arasu", the programmes for rehabilitating the repatriates.

The lure of better prospects made Indians leave their kith and kin hearth and home to distant lands. The belief that people could make pots of money from plantations was enough to goad the people. Eagerness and over expectation rendered them unaware of the straitened circumstances of the earlier settlers. And they faced stark reality on their landing. But the long journey back and the need to better themselves in the eyes of their friends back home, made them attempt to rise up to the challenge and prevented their return home. They had put up with great hardships and difficulties. They could not find a proper shelter which they could call their home let alone a good job. Finally they settled down as labourers in tea and rubber plantations in the far east. A majority of them settled down in Sri Lanka, Burma and Thailand.

The people of Indian origin who had migrated to Sri Lanka during the British rule were being sent back to India under a bilateral agreement arrived between the two countries. Eversince 1964, about 67,000 families have repatriated, and about 1.5 lakhs more families are expected to be repatriated in the course of the next ten years.

The repatriates are of Tamil Origin and thus almost the entire burden of rehabilitating them falls on Tamil Nadu. A number of schemes have been drawn up to rehabilitate the families of repatriates. They have to be given assistance in the form of loans, house-sites and employment.

This is a problem which is acutely felt. Therefore, the Minister for Social Welfare, Selvi P. T. Saraswathi

who is also in charge of Rehabilitation was interviewed in order to understand the problem and the measures that are being taken.

The Minister is a charming, gracious and articulate young lady whose grasp of the problem and the imaginative steps taken by the Government reveal her intelligence and understanding.

The Minister said, "This is a problem which has been with us for some years now. It is not the aim of the government to give cash subsidies for an indefinite number of years, but rather to provide employment and livelihood opportunities for these displaced persons. She further said the repatriates from Burma are not accustomed to do any job other than that of running petty shops. The Government therefore, has to help these persons to put up petty shops. There are schemes to train them in some petty trade or profession to earn their livelihood.

The aim is to render them self-supporting and settle down as useful citizens in the long run."

The repatriates of Sri Lanka on the other hand, were estate labourers. In order to resettle some of these repatriates in the plantation, the Government has started tea plantations in the Nilgiris district and coffee plantations in Kanyakumari district. Large areas of Gudalur Jenmam lands in Nilgiris have been taken over by the Government to be utilised for raising tea.

The repatriates from Burma on their arrival are accommodated in the Transit Camp at Gummidipoondi in Chingleput; those from

Sri Lanka in a camp at Mandapam in Ramanathapuram and Kottapattu in Tiruchi. 700 families are accommodated in the camps at Mandapam and 400 and 200 at Kottapattu and Gummidipoondi respectively.

The Minister further said that those families which bring cash amounts of less than Rs. 5,000 are entitled cash doles for a period of 3 months ranging from Rs. 35/- to 115/-. They are supplied rice at inexpensive rates, i.e., 57 paise per kilo.

The rehabilitation process starts through assistance by grant of business loan, employment in plantation schemes, State Farms Corporation, Spinning Mills or in public or private sector undertakings, or by providing lands under the land colonisation scheme.

The families are employed in the following schemes -

Tea Plantation	1,289 families
Rubber Do.	213 families
Cinchona Do.	108 families
Land Utilisation Scheme	2,161 families
State Farms Corporation	834 families
Spinning Mills	1,433 families

The possibility of intermediary agencies cheating the repatriates was touched upon. The Honourable Minister clarified that the repatriates were given loan by a demand draft of a Nationalised Bank in order to avoid the interference of intermediary

brokers. In the districts, the loans were disbursed through the Post Office Savings Bank account. The loan is given to the repatriates directly and not through any agency.

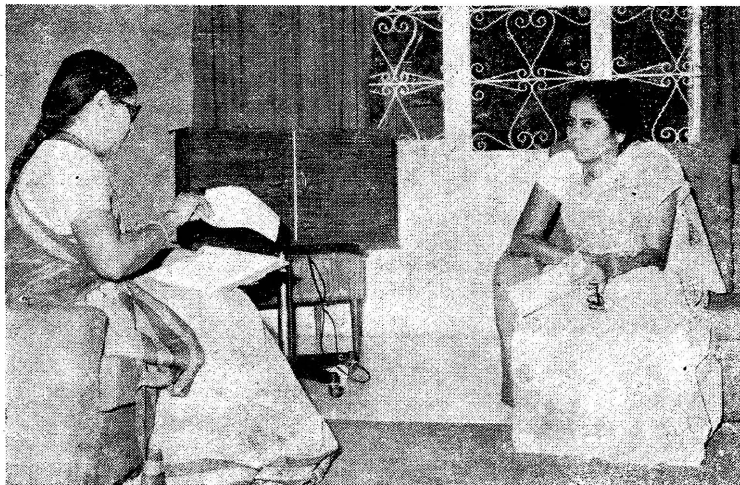
The Minister also said that the repatriates are given loan to start an industry or business according to their aptitude. The maximum amount of Rs. 5,000 is given, the loan being disbursed in two instalments of Rs. 3,000 and Rs. 2,000 each. The second instalment is given only after verification of proper utilisation of the Loan. If two or more repatriates join together they may start an industry on a partnership basis or co-operative basis and each family will be eligible

rural areas and Rs. 6,000 in urban areas. The Minister said that there is difficulty in securing house sites, because the house-sites have already been allotted to Harijans and the landless poor. In this regard the Government of India will be approached to make provisions for acquisition of house sites. Instructions have been given to identify reserve lands to provide house sites for the repatriates.

To a question if there is any long-term programme for their rehabilitation, the Minister said that the State Government are considering the utilisation of Gudalur Jenmam lands taken over by the Government for raising tea plantation for resettle-

taken to eliminate the cheats. Referring to the role of the Government of India in this scheme, the Minister said that the Government of India provides financial assistance for the implementation of the various rehabilitation schemes. Provision has been made for a loan of Rs. 6.99 crores and a grant of Rs. 1.20 crores for resettlement of Sri Lanka repatriates. The Government of India has also provided a sum of Rs. 15,000 as discretionary grant to help deserving repatriates. As Minister for Rehabilitation, the grant will be sanctioned by her, she said.

To a question whether there are any schemes to impart training to repatriates later to be absorbed in



for a loan of Rs. 5,000 payable in one lump sum.

The repatriates are also settled in agriculture. They are given 3 acres and house sites. A loan of Rs. 6,850 is given to carry on agricultural operation, sinking of wells and for purchase of work animals. They are also given maintenance allowance of Rs. 40—Rs. 150 per month depending on the number of the members of a family for a period of 21 months — first nine months as subsidy at full rates and the next one year as loan at half the rate.

Talking about providing houses for repatriates the Minister said that the repatriates are granted loan for construction of houses. A loan of Rs. 3,000 in

ment of the repatriates from Sri Lanka. The possibility of absorption of repatriates in various industrial schemes to provide permanent employment is also being worked out.

Answering the question whether Government proposes to take steps to eliminate the middlemen who misguide both the affected persons and the Government the Minister replied that the repatriates may get cheated by the middlemen and self-styled contractors promising them to construct houses or getting assistance from the Government. The Government is considering the setting up of a vigilance cell by the Police Department to watch the activities of these intermediary brokers. She assured that every step will be

different vocations, the Minister replied that the repatriates are given training in various trades and professions such as (i) training in Heavy vehicles, Mechanic-cum-Driver's Course, (ii) Pre-Industrial Training in the Training Centres at Gummidipoondi and Trichy, (iii) Tractor Training in Fishing and (iv) Training for women in tailoring in Garment and Holdall making unit.

Seats are reserved for the repatriates in all Industrial Training Institutes in the State.

The interview has proved most fruitful in highlighting the Government's keen interest in the problems of the uprooted repatriates and their constructive approach on providing both short and long term solutions.

# Special

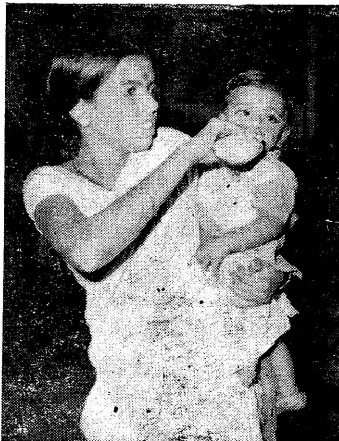
## Nutrition

### Programme

in

T  
A  
M  
I  
L

N  
A  
D  
U



The Special Nutrition Programme which aims at the supply of nutritional supplements to economically weaker sections of the community is being implemented from the year 1971-72, by the Department of Social Welfare of the Government of Tamil Nadu through the local bodies. The daily rations of balahar and salad oil per beneficiary per day are 80 grams and 7 grams respectively with the help of which, cooked food like Uppuma, Kit-chadi, Pongal etc., are distributed to the beneficiaries. The local bodies are paid a grant of 6 paise per beneficiary per day to meet the expenditure on the purchase of condiments, internal transport charges, payment of honoraria to cooks, organisers, helpers etc. A non-recurring grant of Rs. 5/- per beneficiary has also been provided to the local bodies for the construction of small kitchen and purchase of simple transport vehicles. The total budget provision is about Rs. 55 lakhs.

#### Special Nutrition Programme with Medical care :

In Madras, Madurai, Coimbatore and Pudukkottai, the Modified Special Nutrition Programme with medical care is being implemented. Under this pattern, the beneficiaries are supplied with 700 grams of raw balahar per beneficiary per week with medical assistance for the beneficiaries. Under the scheme of medical umbrella, the Special Nutrition Programme beneficiaries are immunised. Periodical medical check-up of the beneficiaries is also undertaken by the medical staff appointed for this purpose. The Scheme is entirely financed by the Department of Social Welfare of the Government of Tamil Nadu and the food stuffs are supplied by the CARE Organisation.

The break up for the total coverage of beneficiaries in Tamil Nadu is given below :

<i>Name of Zone</i>	<i>No. of City/ Towns</i>	<i>Beneficia-ries Strength</i>
Madras City	1	1,00,000
Madras belt areas	11	47,634
Mofussil (Cities & Towns)	27	1,14,322
Tribal areas	21	14,574
	60	2,76,530

Thiru Bartle Frere, Commissioner of Scinde introduced paper stamps in token of pre-payment of postage in the province of Sind in 1852. These were the first postage stamps brought out in the whole of Asia and have become famous as "Scinde Dawks". The Central design of the stamps was the East India Company's broad arrow and the stamps were embossed in different colours. The Scinde Dawks

विशेष आवरण SPECIAL COVER

TANAPEX '78

6-2-1978

## SCINDE DAWKS Among Rare Stamps



are to-day rarities and are in the possession of only a handful of fortunate collectors. The ordinary philatelists are lucky to see these Scinde Dawks even in an exhibition. These blue and white Scinde Dawks were some of the rare items on display at Abotsbusy from February 4 to 8 at Tanapex-78 the third regional exhibition organised by the Postmaster-General, Tamil Nadu Circle.

The first general issue of stamps

in India was in 1854 and was brought out by Captain Thullier, Deputy Surveyor-General of India. These were in half-anna value and were issued on October 1, 1854. Proofs and reconstructed sheets of this rare first half-anna blue lithographs (with Queen Victoria's head on them) were on display.

Stamps on 500 frames numbering over one lakh put up by 177 participants were seen at the exhibition. One tenth of the frames

were in the "above competition" class and the rest in the competitive class. In the "above competition" group were exhibits from renowned philatelists of Bombay, Bangalore, Calcutta and Madras as well as collections of the National Philatelic Museum, New Delhi. Exhibits of the last mentioned category included colour trials of the 1969 Mahatma Gandhi Centenary issues as well as progressive colour proofs of INDIPEX-73 and the stamps on Indian Masks.

Tanapex 1978 was inaugurated by the Chief Minister, Thiru M. G. R., on 4-2-78. The Governor Thiru Prabhudas Patwari presided over the function.



# BA Truly the Better Half

Kasturba or "BA" as she was affectionately called, holds an unique place in the hearts of millions of men and women in India. She has remained a symbol of the "mother" combining in herself the many sacred ideals sacred to Hindu society and even perhaps to civilisations of all types and to all ages.

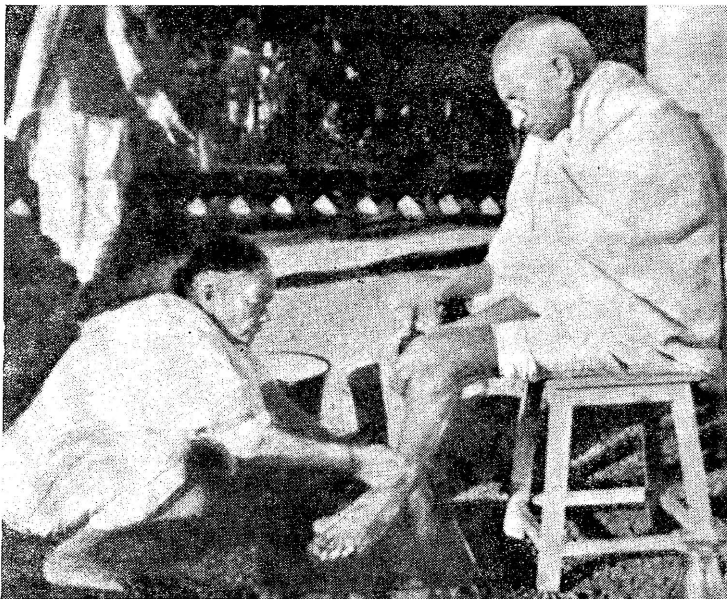
She was not only essentially and fundamentally "BA", but was "Ba" in a very special sense. She was very human, with all the frailties and weaknesses of a human but with a simplicity that transcended everything and ennobled all that is human. These traits contributed the essence of her appeal not only to spiritual seekers and workers but to all people.

The Hindus idealized the wife as "Saha-Dharmini," the fellow pilgrim in the pilgrimage of life. Hindu culture has enshrined the memory of women from the time of Savithri and Sita to Kasturba in the twentieth century. Ba's pilgrimage was one of the most arduous in the history of the world.



for her fellow pilgrim was a most relentless, uncompromising pilgrim

of Truth-Bapu-a hard task-master yet, Ba was no blind follower. She disagreed, protested and struggled hard for conviction at every step of the difficult path, but once convinced, she accepted the same with all the loyalty of a comrade and a wife and the compassion of a mother.



The "Cares" of the nation was upon him. But Ba with the "Care" of a mother and wife used to massage the swollen feet of the Father of the Nation.

She was noble enough to say, "Bapu is a great man. He admits his mistakes and he has never done me any injustice. In disputes with him, I have always been in the wrong" Ba was the symbol of self sacrifice. Her willing renunciation of "conjugal rights" and domestic happiness and a "rich comfortable living" for the spiritual growth of her consort was not less noble because she wanted to live in the shadow of the Mahatma. Ba seldom had Bapu to herself and freely shared him with the world. Seldom was Bapu seen alone with Ba or were they ever seen talking to each other. In "A week with Gandhiji" Louis Fischer writes in 1942, "Kasturba with her sunken face, straight mouth and square jaw, seemed to listen attentively, but I did not hear or see

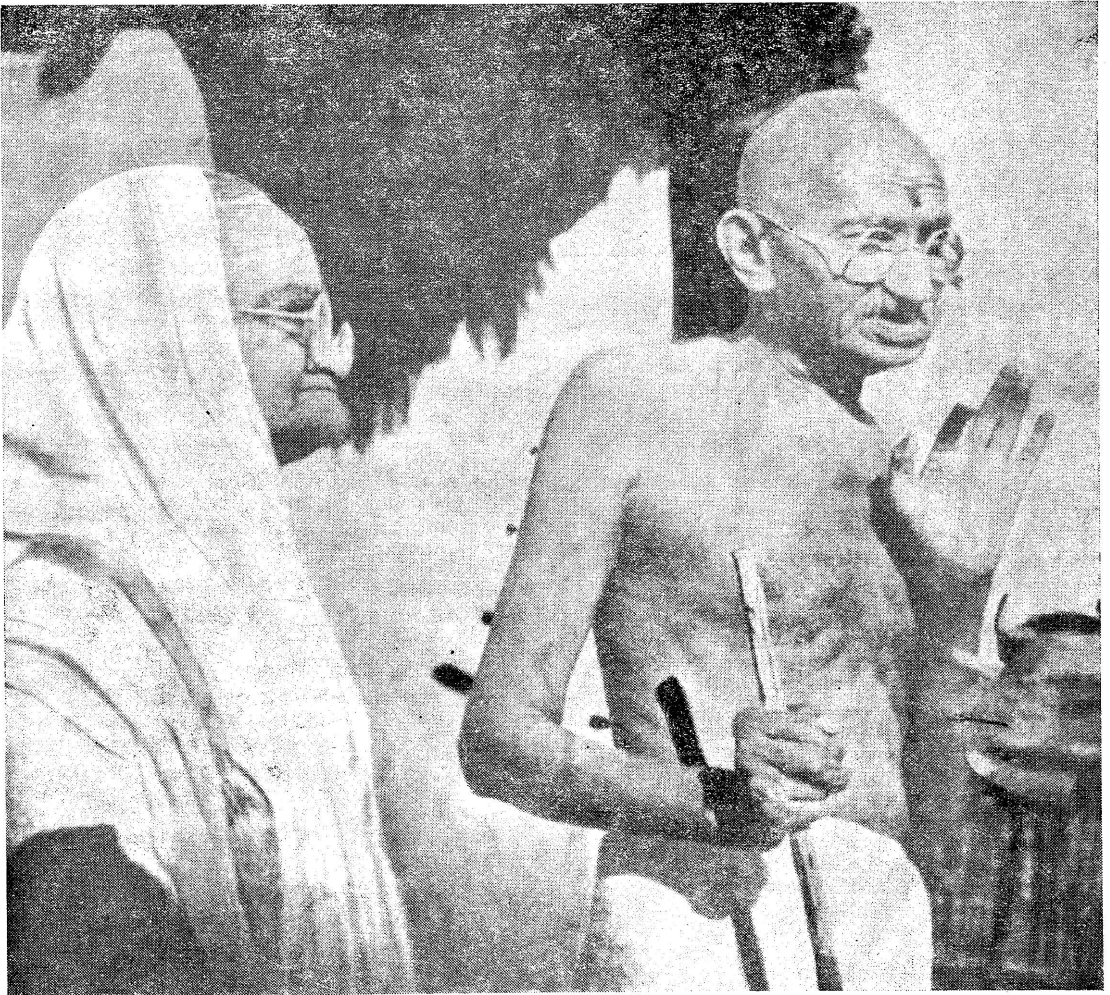
## SYMBOL OF INDIAN WOMANHOOD

her say a single word to her husband during the entire week, nor he to her. At meals and prayers she sat slightly behind his left shoulder fanning him solicitously. She always looked at him, he rarely looked at her yet he wanted her nearer to him and there appeared to be perfect understanding between them.

Gandhiji in his letter to Lord Wavell had said, "we were a couple outside the ordinary . . . our continence, after the age of thirty seven, knit us together as never before, we ceased to be two different entities. The result was she became truly my Better Half."

**"Peace to the spirit of the frail and valiant woman who was the living symbol of Indian womanhood..... Never once did her feet falter or her heart quail in the steep path of perpetual sacrifice which was her portion in the wake of the great man whom she loved and served and followed with such surpassing courage, faith and devotion. She has passed from mortality to immortality and taken her rightful place in the valiant assembly of the beloved heroines of India's legend, history and song.**

*Sarojini Naidu.*



*Ba with Bapu*

*"Blessed are they who seek refuge"*

# 11 + 1

## **SOLID Reasons**

if you are  
in export  
business

## **INVEST IN KANDLA FREE TRADE ZONE**

On top of these, you are assured of a no-delay service for foreign exchange clearances. Reserve Bank formalities, Industrial Licences, M R T P clearance and so on.

These are exciting offers. Your investment is safe in Kandla Free Trade Zone. There are already industrialists who are in the line of manufacture of ready-made garments, drugs and pharmaceuticals, hane-knitting machines, embroidered goods plastic goods, stainless steel/utensils, processed food etc. There is scope for more specialised industries too.

- Δ You get duty-free capital goods
- Δ You get duty-free raw material
- Δ You can import yourself raw material banned or canalised in India
- Δ You get income tax exemption on 20% of your profits and gains for ten years
- Δ You can exempted from excise duty on the bulk of your operations
- Δ You get concessional finance upto Rs. 1 crore for your fixed assets at cheaper rates of interest
- Δ You by Machinery, raw materials, spares, tools and components at export prices for your project.
- Δ You get 1% of the f. o. b. value of your export in cash as subsidy
- Δ You get special facilities on merits of blanket permits of foreign exchange for export promotion visits abroad
- Δ You can import machinery/components & raw materials under Open General Licence.
- †† Cash subsidy at 10% in cash of small scale units and 15% medium and large-scale units of the fixed capital investment subject to a maximum of Rs. 25 lakhs to the units commissioned after 11-1-1977.

WRITE FOR FURTHER  
INFORMATION TO

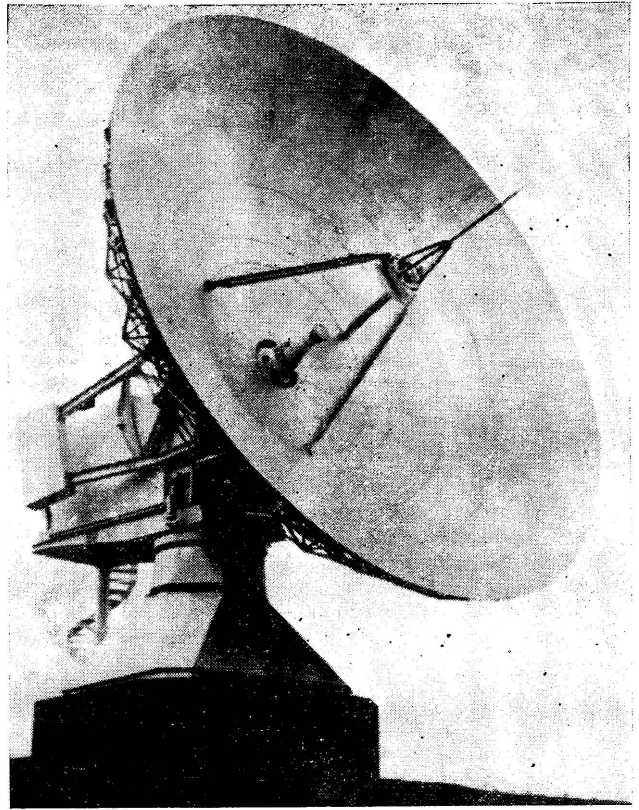
**THE DEVELOPMENT  
COMMISSIONER,  
KANDLA  
FREE TRADE ZONE,  
GANDHIDHAM,  
KUTCH**



davp 77/481

# SATELLITE

## T E C H N O L O G Y



**A**fter the successful launching of the first ever artificial satellite, Sputnik-I by the Russians, the technology of rockets has been advanced considerably by continuous research and design work done in many countries. Side by side with the development of advanced technology for Rockets, the capability of the satellite has also been advancing very rapidly. The technology originally developed for space probes was immediately exploited for launching communication satellite for relaying telephone, telegraph messages and TV programmes from one earth station to the other over a much wider area than a normal transmitter can. One single communication satellite launched at a suitable point at a height of 35,800 km above the equator can provide coverage over one-third of the globe. The distance of 35,800 km above the earth is important as, at that height the satellite takes 24 hours to go round the earth and to earth station the satellite appears stationary.

The satellite launched in the stationary orbit (Synchronous orbit),

simplified the transmitting and receiving arrangements. The early communications satellites were in orbits other than the stationary orbit and could establish communication between any two earth stations only for the time, they were passing overhead and special steerable aeriels were required making the whole technology more complicated. Launching of satellite in stationary orbit has considerably reduced the complexities of design and operation.

Communication satellite like any other satellite suffers from the inherent disadvantages of having a limited active life of about 7 years beyond which it becomes inoperative. The satellites are powered by Solar Cells which receive their energy from the Sun. Storage batteries are also provided to cater to the power requirements during periods of eclipse. The Solar cells have a

life ranging from 7 to 10 years which limits the active life of any satellite.

### GROUND STATIONS

In addition to the communication satellite orbiting in the stationary orbit, ground stations with large antenna are established at various places on the earth at suitable points to provide communication facilities both national and international through the satellite. A ground terminal that controls and monitors the satellite is also established. This type of ground terminal is equipped with telemetry and telecommand facility for effective control of the satellite's orbit and keep the satellite in position by commands from the earth station.

At present this technique is being used by the Overseas Communication Service for handling traffic to other countries via the Indian Ocean Satellite. Satellite communication offers a very reliable and large capacity system for handling overseas traffic. It represents a major break-through in the commu-

---

**Thiru Jagdishwar Lall**

*General Manager,  
Telecom Projects.*

nications technology introduced in 1960. Previously overseas communications from India were being handled on high frequency radio system, which suffers from inherent limitations both in capacity and quality, due to ionospheric and atmospheric disturbances. The satellite services are trouble free and work round-the-clock with well over 99 per cent reliability.

## INTELSAT

The Global Satellite Communication System has been developed by the INTELSAT which was created in August, 1964, and has at present a membership of 100 countries from all over the world. The Intelsat is responsible for the design and operation of satellites. The ownership is on a joint basis in proportion to the capital participation allotted to each member country. The ground facilities like the earth station, etc. are established by the countries concerned at their own cost for operation with the satellite system. The three main synchronous satellites positioned over the Atlantic, Pacific and Indian Oceans at a height of 36,000 km were launched by National Aeronautics Space Administration (NASA) on behalf of Intelsat and a basic global satellite communication system has been in commercial operation for several years. In India, the Arvi station near Pune was commissioned in 1971 at a cost of about Rs. 8 crores, and the second satellite earth station at Dehra Dun in December 1976 at a cost of about Rs. 10 crores. Both these stations are working with the Indian Ocean Satellite of the Intelsat. India, in view of her geographical position can see and operate only with the Indian Ocean Satellite. More earth stations are being planned for execution in the near future by the Overseas Communication Service.

The P. & T. Department has recently sanctioned a project costing about Rs. 6 crores which will provide reliable telecom facilities to Leh, Aizwal, Lakshadweep, Port Blair and Car-Nicobar islands using satellite technology. These stations will be working with Delhi and Madras which will act as gateway stations to link them to the telecom network of the country. Earth Stations will be set up in each of the above places which will initially work with the Intelsat Indian Ocean

## AN INDIAN DOMESTIC SATELLITE

**AT A COST OF  
Rs. 173 CRORES  
WILL BE LAUNCHED  
OVER THE  
INDIAN OCEAN  
WHICH WILL  
HAVE THE FACILITY  
OF RELAYING LIVE  
TV PROGRAMMES.  
IT WILL ALSO HELP  
IN ACCURATE  
AND  
EFFECTIVE WEATHER  
FORECAST**

Satellite and a quarter transponder is being leased from the Intelsat organisation for the purpose.

The Preliminary works like selecting the site, acquisition of land, construction of building etc., have been initiated for which an organisation has been set up in Delhi with officers spread over various regions to look after the construction of the earth stations under this project.

## DOMESTIC SATELLITE

Another project costing about Rs. 173 crores has also been approved by the Government of India under which an Indian Domestic Satellite is proposed to be launched over the Indian Ocean in the Synchronous Orbit. Under this project additional earth stations, some 28 in the first instance, are proposed to be set up to further widen the telecom network via the Indian Domestic Satellite. The satellite will have the facility of relaying live TV programmes and provide the facility for TV broadcast at the main stations. Meteorological data will also be collected and relayed to the master stations through the satellite for accurate and effective weather forecasting in the country. The satellite is scheduled to be launched in the year 1980-81 after which the above facilities will be available through the Indian Domestic Satellite.

The circuits provided through the Indian Domestic Satellite can supplement the existing telecom network linking the major towns of the country. Any break-down on the terrestrial links will not cause a communication black out between the stations served by the satellite. In fact, circuits derived from the satellite and serving other stations can be switched to sections suffering from break-down thereby reducing congestion.

Domestic satellite once launched can help provide telecom needs at a very short notice on a temporary basis by using mobile earth stations. This remarkable capability of the satellite communication can be exploited to serve the short term telecom needs in religious fairs, natural disasters or national emergencies. Satellite communication can also serve the emergent needs of areas ravaged by natural calamities. Six mobile earth stations are envisaged in this project.

# Revolutionalise the Poultry with Cages

25 years ago, Poultry keeping in India was a backyard proposition consisting of a small number of birds of many different breeds according to the availability and fancies of people. Today- Poultry farming has become an organised commercial enterprise with flock sizes ranging in 1,000s even upto 50,000 in a single unit. Such rapid growth of poultry farming as an industry in India in recent years has resulted in finding out new ways and means to reduce the production cost of an egg. "Cheaper Egg" means, stability of entrepreneurs in egg marketing, more profit and large turnover in business. So suitable husbandry practices to minimise the cost of production with overall efficiency must be devised. The rearing and housing methods have got considerable influence on the total number of eggs produced by layer birds. At the time of initial stages of popularisation of poultry keeping, people were asked to take up the deep litter system. When various researches start yielding applicable results, cage system of housing layer birds had attracted more attention of farmers.

The cage system of housing is more common in mild and stable climates and birds are housed either individually in single bird cages or in groups in multiple bird cages. The multiple bird cages are also called as colony cages. The use of wire cages for laying birds has gained wide spread popularity nowadays. Number of birds kept in cages. It has been estimated that 62.8% of the world's laying birds are being reared in cages.

The success of any business is being reflected by the total net profits shown in the balance sheet. The capital investment is an important item in the business. If new methods or measures found out to reduce the capital investment

they should be given top priority in replacing the old methods. This will certainly suit to replace the deep litter system with cage system.

The advantages of cage rearing over the deep litter system are distinct and worthy to be informed to progressive farmers. Inputs or investment is comparatively narrow in cage system while managerial practices and disease control measures are easily attainable to our satisfaction in cage system. The details of comparison in major aspects between two systems are given in the following table for easy go through :

Housing and the equipments placed in the house are included in the capital investment. This occupies the major portion of the bulk. It is found that in cage system the capital investment is only about 50% what one has to invest in deep litter system.

There are established proofs of the superiority of the cage system over the traditional deep litter system. The birds can be judged from the age at maturity, total egg production, its egg weight, individual feed consumption per day and body weight at maturity. The birds reared on cages are coming to maturity comparatively earlier and they attain more body weight at maturity, consumes less feed per day and at the same time lay more number of eggs. On an average the mean egg weight also is more than the birds housed under deep litter system. The cage pullets, came to maturity at 174th day with 1.350 kgs. weight. The egg weight was more than 50 grams on average with 'A' grade and 'AA' grade

eggs and its individual daily feed consumption was only about 85.00 grams which is comparatively very much less than the litter system pullets.

The comparative figure for the floor or litter system pullets is beyond 175 days with 1.2 kg. with a daily feed consumption of about 100 grams.

Not only the quantitative factors are favourable to cage system but also the qualitative analysis of contents of eggs produced by birds under cage system placed them in a very enviable position over birds kept under the deep litter system.

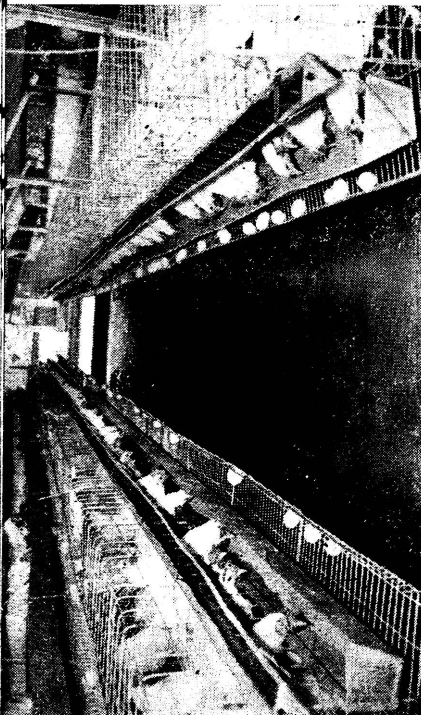
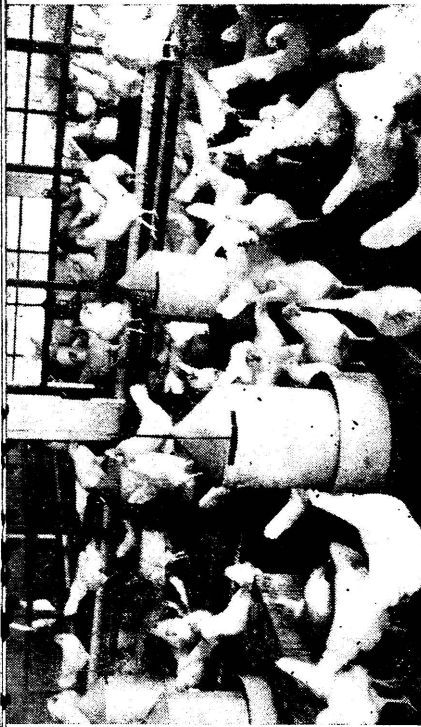
Mean egg weight is 51 grams ; 86.5% AA and A grade (USDA Grade) were attained from the birds of cage system where as mean egg weight is 49 grams weight only and 76% of AA and A grade eggs got from the birds of deep litter system.

The cage system is well adaptable to broiler birds also, as shown by results of experiments conducted with broiler birds in various places.

When broilers raised on cages, they are observed to attain a faster growth rate, a higher body weight with less percentage of mortality at 10 weeks of age. The mortality is around 3.5%. They are able to produce 1 kg. of meat with about 2.98 kgs. of feed. The respective figures with birds in deep litter system are not an encouraging one.

To sum up, the cage rearing system is the order of the day, if entrepreneur wants to establish himself in this competitive industry. The progressive farmers, by adoption of this system, are sure to produce cleaner eggs and larger turnover and naturally to earn a swollen profit.

Dr. S. SHANMUGASUNDARAM, and  
Dr. K. M. SELVARAJ,  
*Madras Veterinary College,*



**TABLE I**

**The Advantages of Cage rearing over to deep litter system**

1. Housing cost	Much less because of less floor space per bird.	More because of more floor space per bird.
2. Equipment	Watering and feeding arrangements occupy most convenient outside approaches.	Not convenient at all or not so convenient because mostly equipments with inside arrangements for group of birds.
3. Labour	Less labour effort for various routines.	More labour efforts for feeding and watering.
4. Management	Individual attention happens as a result.	Individual attention either impossible or costs heavily.
5. Culling	Effective culling is possible.	Intensive culling costs time and money.
6. Floor management	Management cost does not arise at all.	More of labour involved in litter management
7. Wastage	Feed wastage can be avoided or controlled.	Difficult to avoid feed wastage.
8. Disease control	Minimised occurrence of coccidiosis and efficient. Deworming is common.	Coccidiosis is a big problem and worms can not be completely eradicated.
9. Net return by salvaging manure	More return.	Less return.

	<i>Deep Litter System</i>	<i>Californian System o Cages</i>
<b>Housing :</b>		
Floor Space	2 sq. ft. bird	1 sq.ft. bird
Cost	Rs. 30 sq.ft.	Rs. 20 sq. ft.
<b>Equipment :</b>		
Feeders		
Waters	Rs. 6 per bird	Rs. 12 per bird
Nest Boxes		
For 1,000 birds—		
Total Cost	Rs. 60,000 X 6,000 —Rs. 66,000 -.	Rs. 20,000 X 12,000 —Rs. 32,000-.

# DRUGS FROM NATURAL PRODUCTS—

## Development & Prospects

India is endowed with a very rich flora and the ancient Indian system of medicine is largely based on plant remedies. References in Rig Veda, studies in Ayur Veda etc., are irrefutable evidence of the deep understanding of our ancestors of the nature of various plants, animal and human lives. They contain a wealth of knowledge of plants, their uses and application for the happiness and betterment of mankind. Antibiotics, vitamins and hormones are products of research in recent decades. By contrast, the use of medicinal plants is very much older. These have been used by men for some thousands of years. Until the middle of 19th century they were the only materials available for treatment and prevention of diseases. Throughout the middle ages Materia Medica of plant origin seemed to be more important than surgery. They were subject to strict regulations of the Medical Faculty.

It was therefore a natural development at the beginning of the 19th century when the modern chemistry and pharmacy began to develop to study Medicinal plants. Morphine was isolated in 1805. A whole series of other plants were investigated to detect similar products. Some of them were found to be complicated organic compounds of basic nature. In view of their alkaline properties due to their nitrogen content, they were called 'Alkaloids.' Many of them were found to be very good drugs like

Quinine from Cinchona bark, Atropine from Atropa belladonna etc. The preparation of drugs from plants or animal organs was exclusively the responsibility of the pharmacist. At first, extracts and later pure substances were prepared in an ever-increasing scale as demands grew. Finally they were prepared in small factories and thus began research on the rational preparation and chemical elucidation. It was realised that the active contents varied greatly with the quality particularly with respect to origin and storage of raw material.

Many of the plant 'alkaloids' etc., which are of importance to-day are obtained from hundreds of tons of plant material either growing wild or specially cultivated. The pure crystalline substances are then processed to make tablets, oral solutions, syrups, injections etc.

Studies on natural products not only increase and deepen our scientific knowledge but also provide a basis for a highly developed industry which provides countless people with employment, helps to raise living standards and to treat or prevent disease. In this way excellent services are rendered to huma-

nity. One of the most noteworthy endeavours of scientific research is to give the benefits of its achievements to everwidening circle of the world's population.

In an agricultural country like India with varying soil and climatic conditions it is possible to grow many medicinal plants. During earlier years, local pests and diseases were a great deterrent in the introduction of exotic plants as they usually have no resistance for the same. But with recent advances in plant protection measures and application of plant nutrients, the plants can be easily protected and cultivated on a commercial scale.

In nature a plant is able to synthesise complex molecules from simple ones through highly specific reaction mechanisms. The reactions involved are either difficult or expensive to duplicate by chemical methods. In many cases it is economical to allow a part of the synthesis to be carried out by the plant in nature and subsequent steps by chemical methods. Some of the examples are synthesis of Vitamin 'A' starting from 'Citral' present in Lemongrass oil, Cortico, steroids including Cortisone Sex hormone: etc., starting from Diosgenin present in Dioscorea tubers or Solasodine present in Solanum berries and leaves. The research work done in the case of Dioscorea and Solanum species have given very promising results.

---

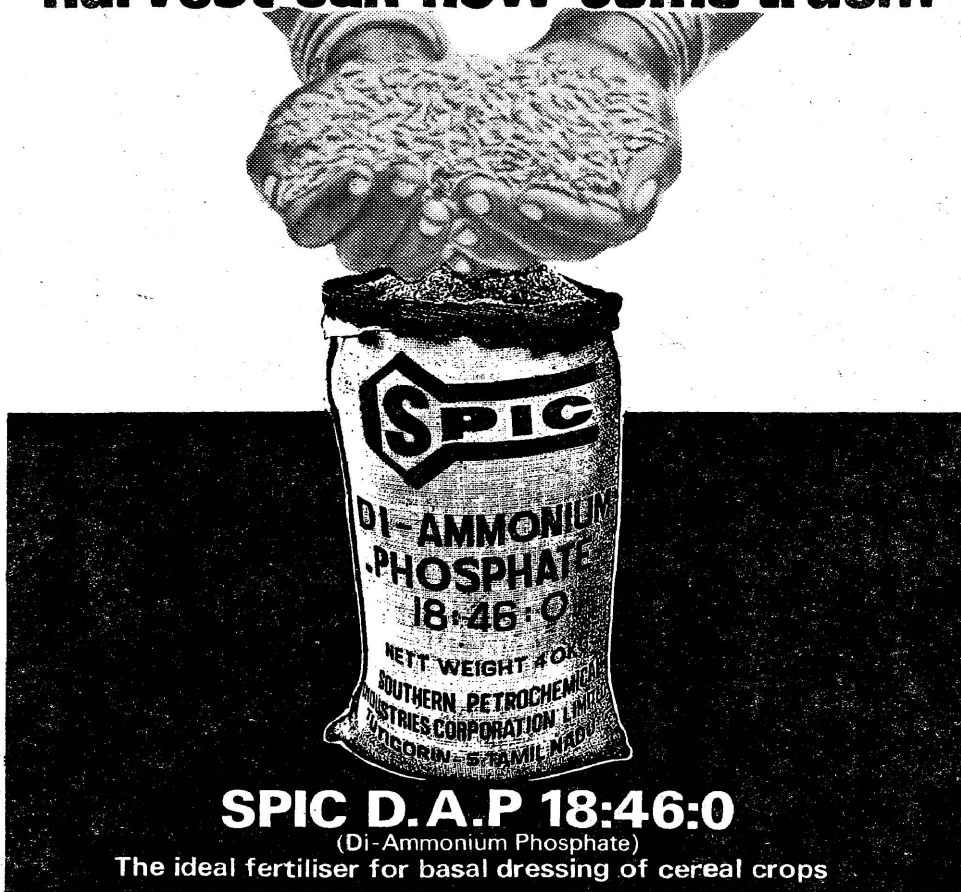
**K. DORAISWAMY,**

*Director,*

*Government Cinchona Department,*

---

# Your dreams of a golden harvest can now come true...



## SPIC D.A.P 18:46:0

(Di-Ammonium Phosphate)

The ideal fertiliser for basal dressing of cereal crops



CAS SPIC 2 77

Besides cereal crops like rice, jowar and bajra, SPIC DAP is also good for sugar-cane, cotton, groundnuts, tapoica, as well as dry-land crops.

It is the higher analysis phosphate (46%) that makes SPIC DAP the most economical and effective basal dressing.

**SPIC Fertilisers-for better yields and higher profits.**

**SOUTHERN PETROCHEMICAL INDUSTRIES CORPORATION LTD.  
38-39 Mount Road, Guindy, Madras 600 032.**

In the case of certain compounds present as active principles of plants, where different isomeric forms are possible, Chemical synthesis yields a mixture of isomers which will be difficult to separate. The product obtained in the synthesis may therefore have a toxic effect or a different therapeutic effect. In the plant these reactions take place at normal biological temperatures and pressures and the type and quality of the substance produced will be the one that it needs for its metabolism and hence normally free from toxic ingredients.

In view of these factors there is still great demand for plant products in the world in spite of the advances in chemical technology and appearance of cheaper synthetic substitutes.

It is true that synthetic drugs have contributed their share in alleviating human suffering through cure and prevention of several diseases. But the side effects of taking synthetic drugs are known to be more than the drugs prepared from natural products. The 'Thaliodomide tragedy' which resulted in the birth of babies with deformed limbs etc., is too well known to be recounted. It is but natural that man a 'product of nature' should react minimally to drugs obtained from nature *i.e.*, natural products.

The Madras Government Cinchona Department heralded a golden era in the history of mankind and especially for those suffering from Malaria in the country when Cinchona plants were introduced in Dodabetta in Nilgiris by Mr. McIvor, the Superintendent of Government Botanical Gardens, Ootacamund in 1860. The experimental plot at Dodabetta gradually developed into successful Cinchona Plantations in territorial jurisdiction of this Department in Coimbatore and Nilgiris Districts. Unlike other cash crops such as tea, coffee, rubber etc., the cultivation of Cinchona was not remunerative to attract private sector. Hence the Government had to incur heavy losses in the beginning to maintain the industry in the interest of suffering humanity and as a public health measure. During the Second World War the expansion of cultivation of Cinchona was taken up on a massive scale to meet the heavy demand of Quinine. After the cessation of the hostilities, the demand for Quinine dwindled

“The side effects of taking synthetic drugs was seen in the ‘Thaliodomide tragedy’ which resulted in the birth of babies with deformed limbs etc, is too well-known to be recounted.”

down due to the flooding of the market with several synthetics which made short appearances and disappeared from time to time.

There was a sudden boom in the demand for Quinine in foreign markets and the accumulated stocks were wiped out. It is understood that Quinine is being increasingly used for the production of Quinidine and as a bitter for aerated drinks and alcoholic beverages.

Due to a period of forced moratorium on the expansion of Cinchona Plantations from 1945 to 1964 the output of the raw material from the existing plantations is not sufficient to meet the increasing demands for Quinine products and Quinidine sulphate in internal and international markets.

The expansion of Cinchona Plantations will be a national asset especially in view of the resurgence of malaria in several parts of our country. It is also advisable to increase the Quinine content of the bark by propagating high yielders as well as undertaking vegetative propagation by well tried successful methods like budding, air-layering etc. The Tamil Nadu Government Cinchona Department along with its counterpart in West Bengal down the ages has held a place of pride as service oriented departments despite the upheavals brought about by synthetics to replace the natural Quinine, fluctuating prices, and changing fortunes. The vicissitudes the Departments had to face in the cultivation of this life saving crop *viz.*, Cinchona, is a memorable chapter in the history of the drug industry in this country.

Diosgenin, starting material for the manufacture of various steroid hormones and Cortisone is obtained from the tubers of various *Dioscorea* species available in the Himalayas. Due to large scale exploitation of this natural source raw material, it has become necessary to cultivate this crop. Many industrial concerns have taken up this work in right earnest. The Tamil Nadu Cinchona Department has also taken up *Dioscorea* cultivation in right earnest

The manufacture of Diosgenin on factory scale as an adjunct to Government Quinine Factory, Cinchona, utilising the facilities available, from the tubers harvested is proposed to be taken up during

1979-80 when the areas become mature for harvest.

Caffeine, a drug used in analgesics and in great demand is manufactured from tea waste available from Tea factories. The manufacture of Caffeine from tea waste on pilot scale has been undertaken by Cinchona Department. It is proposed to instal the Caffeine manufacturing plant in the Medicinal and Essential oils Factory, Naduvattam with a daily input of 2 tonnes of tea waste.

Solanum khasianum and Solanum laciniatum from whose berries and leaves the alkaloid Solasodine is manufactured are our new introductions. Solanum khasianum is a potential raw material for production of steroids at a comparatively low cost of cultivation unlike the cultivation and processing of Dioscorea which is highly capital intensive. In this connection, the following suggestions are offered :—

- (1) New plant types with synchronous fruiting and maturing have to be evolved ;
- (2) Types without spines have to be evolved to overcome problems in cultivation and harvest ;
- (3) Commercially viable method of extraction have to be evolved ; and
- (4) Improvement in yield of berries as well as the Solasodine content are essential.

Many of the crude drugs which are sources of several preparations still come from the state of these wild growth. The natural resources unless renewed, are bound to diminish. A time has come to undertake the cultivation of the Medicinal plants to meet the increasing demand of the new industrial units set up. Our main attention should be on encouraging these crops as farm products and commercial utilisation thereof. The 'Hathi Committee Report' of Development of Drugs and Pharmaceutical Industries in the country has laid emphasis on expansion of cultivation and commercial utilisation of Cinchona (Quinine and Quinidine), Digitalis lanata (Cardiac glycosides), Tea Dust (Caffeine), Lemongrass (Vitamin 'A') etc.

It should be our endeavour to develop suitable cultivation practices

to enable these crops to be cultivated as agricultural crops in different elevations and climatic conditions. The fast growing demand all over the world for Cortico steroids which are derived from plants like Dioscorea deltoidea, Dioscorea composita, Dioscorea floribunda etc., and Solanum species has to be taken note of urgently. The package of practices for cultivation of Dioscorea and Solanum species have been fairly developed and hence the cultivation will have to be taken up on a large scale to sustain our National Programme of Family Welfare which is very vital to our progress. We should develop suitable processing units around cultivated areas to enable this country to reduce the export of raw materials and instead increase the export of drugs and drug intermediates. Research and development organisation of several leading industrial units have taken the lead in this direction but a more sustained and increased effort is necessary to achieve the above objective. Another new introduction to pharmacy is the cultivation of Vinca rosea. It is grown widely in Tamil Nadu and the roots are exported for the production of Anti-cancerous drugs. We should take up research to develop commercial process to manufacture the VLB compounds to sustain its cultivation and enhance the earning potential through export of the crude drug instead of the raw material. A rich past is not always a promise for a bright future unless our actions in the present are diverted to make full use of the opportunities offered by science and technology. Research and more intense research is the need of the hour. We will not progress in our efforts for extensive commercial

cultivation of the medicinal plants unless we have up-dated information for marketing the produce, the price and related aspects of production. It is obvious that lack of supply of indigenous products i.e., raw materials would severely restrict the production and expansion programme of the drug industry. Constant and steady supply of raw materials at almost stable prices is essential. Changing demands and wide fluctuation in prices will ruin the industry and destabilise the market. A marketing research unit is absolutely necessary. State Agro-Industrial Corporations could render package of services to growers of raw materials and manufacturers of drugs therefrom. Along with Agro Services, the Corporations should evince keen interest in the development of processing techniques and in organising a sound technological base for the manufacture of the various drugs at cheaper prices. Efforts should be made to produce high quality seeds for the various crops for distribution among the cultivators to ensure results.

It should be stressed that the extent to which the manufacture of drugs from primary raw materials undertaken in a country depends largely on the status of the chemical industry in that country. The fact that drug industry has a great share of the chemical industry in all the developing countries clearly indicates that the drug industry spearheads the development and expansion of the chemical industry of the country. This is mainly due to the fact that the drugs constitute the highest priority after the basic needs of food, shelter and clothing of the population of a country.

The drug industry in our country has contributed its share in accelerating the pace of industrialisation especially in the chemical industry sector. Hence drugs from natural products is a potential which has to be fully exploited to make its legitimate contribution to national economy. This could be done by scientific cultivation of medicinal plants including exotic plants in suitable areas and extracting their active principles and where the active principles form starting materials for further processing by setting up suitable production units for manufacture of higher intermediates and final products conforming to international standards.

**Every Month**  
**TAMIL ARASU**  
comes in handy  
to keep you abreast  
of all the  
**authentic and authoritative**  
**facts**  
**about Tamil Nadu**

Single Copy .. .. Re. 0-50  
Annual Subscription .. Rs. 6-00



**Prevent**

**Fire Accidents**

Do not allow children near fire

Avoid smoking in bed

Use lamps with chimneys

Put out burning cigarette butts

Extinguish fire after cooking

Indifference  
is the cause for  
fire accidents



**PREVENTION OF FIRE ACCIDENTS  
IS THE DUTY OF ALL**

Regd. No. M. 8676-A



సెలెబ్రేట్

అంతర్జాతీయ దోవల దినం



INFORMATION  
RELATIONS NET