

Tamil Arasu

1-8-1977 50Rs



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.



FM Broadcasts ensure a very high quality in reception

You must be wondering about this FM broadcasting service over the AIR F.M. means frequency modulation. At present the AIR transmitters use what is known as an amplitude modulation. As a matter of fact my present talk is coming to you through an amplitude modulated transmitter. What is modulation? As you know the microphone in front of me converts the sound of my words into electrical waves known as audio waves. The Madras B Station to which you have tuned represents a radio wave of frequency 1,150 kilo cycles per second. The mixing of the audio wave with the radio or carrier wave is called modulation. At the receiver end a process known as detection removes the carrier wave to give you back the audio wave which is transformed into the original speech or music by the loudspeaker. I will give you an example. What do you do when you want to communicate something to your friend who is far away. You write a letter, put it in an envelope and post it to your friend. The envelope is similar to the carrier wave. When your friend gets that letter he opens and throws out the envelope to get letter inside. This is similar to the process in your receiver.

The carrier wave so called because it carries the audio signal you want, is the radio wave to which you tune your set. These waves have got two important characteristics viz., the frequency and the amplitude either of which could be varied in accordance with audio signal. If we vary the amplitude it is AM and if we vary the frequency it is FM.

Audio signal as I told you is a group of electrical waves obtained from the microphone which converts the actual sound waves into electrical waves. This audio signal comprises waves of various frequencies ranging from about 50 cycles to about 15,000 cycles per second. This is known as audio bandwidth. This range is different for different types of sound. For example my talk will have the bandwidth of 50 to 4,000 or 4,500 cycles but high quality instruments, or orchestral music will have a frequency range upto 15,000 cycles. The present AIR transmitters both



P.T.S. RAGHAVAN



medium wave and short wave ones use amplitude modulation. The carrier waves of these transmitters should have sufficient bandwidth side of the carrier wave to transmit the audio frequency. But due to overcrowding in the broadcast band we are not able to transmit the full bandwidth. The maximum range of frequencies at present transmitted is upto 70,000 cycles only in the case of these AM transmitters. In the case of FM we have much larger bandwidth +75,000 cycles and it is no problem to transmit faithfully the entire useful audio spectrum. Thus essentially FM becomes a HI-FI mode of broadcasting. To have such large bandwidth the carrier wave also should have a fairly high frequency. The proposed Madras Transmitter will have a frequency of 107.1 MHz.

The main advantages of FM transmitters are almost noise free reception and very high quality. In frequency modulation we keep the amplitude of the carrier wave constant and only change the instantaneous frequency of the carrier wave in accordance with the audio signal. As the amplitude is held constant, almost all natural and man-made disturbances which are mostly of the amplitude modulated type are eliminated. Because of the large

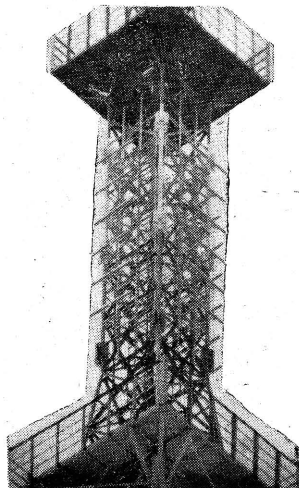
bandwidth the entire audio spectrum can be faithfully transmitted thus ensuring a very high quality.

FM also has some disadvantages. Because of the very high frequency of the carrier wave, it cannot be transmitted over long distances like our medium wave or shortwave transmitter. Just like television it will cover only the "line-of sight" areas. This means that the receiving aerial should be able to "see" the transmitting aerial. Thus for the same transmitter power, the higher the transmitting aerial the larger will be the area covered. In Madras we are putting FM transmitter aerial the same tower as TV and hence the range of this transmitter will also be the same as that of the TV transmitter viz., 80 to 100 Kms. It may be of interest to you to know that the sound portion of the TV programme is frequency modulated. The sound carrier of the Madras TV station is 67.75 MHz. Many people have asked me — can we receive this FM on the TV set. The answer is most probably "no". Most of the sets are spot tuned and even multichannel sets are spot tuned to the various TV channels only. The other way may be possible. As the FM receiver will be continuously tunable, you may be able to tune to the TV sound channel, if the frequency is available.

Another question frequently asked is whether the existing radio sets can easily be modified to receive FM. Theoretically possible but may not be easy or worthwhile. Hence FM sets are to be different. An FM set need not be very much costlier than an AM set, but as I told you earlier FM will bring the best quality musical programmes. If this has to be exploited and utilised fully the receiver should also be able to deliver you the very high quality. Thus an FM set may cost a little more but not much more than a HI-FI AM set.

The characteristics of the FM transmissions viz., limited coverage and higher cost of transmission and costlier receivers — these limit the further expansion of FM. But we feel the higher cost is justified as it will satisfy the demand of the quality conscious music lover.

Courtesy : AIR, Madras



WORLD ENVIRONMENT DAY

The Global concern for the upkeep of the environment resulted in the United Nations convening the conference on human environment at Stockholm in June, 1972 and since then 5th June of every year is observed as World Environment Day to reaffirm our concern for the preservation and enhancement of our environment.

It is a fact that mankind has made good stride in the economic, industrial and other spheres. But the price of progress is that the water we drink and the air we breathe have lost their sparkling qualities and the land we live upon is slowly being made unfit for the purpose. The environmental crisis is a world-wide phenomenon without any political boundary or economic distinction such as developed or developing countries. Hence it is in the fitness of things that the United Nations has taken up this matter seriously and has been observing 5th June of every year as World Environment Day.

Environmental degradation is caused by pollution, urbanisation and deforestation. Pollution — water, air, land, noise — is caused by individuals, industries, local bodies and by agricultural operations.

Man's Actions :

The quest for comforts and employment mobility coupled with increase in population have been the cause of many problems in urban areas. Rural exodus into urban areas exert a pressure on the limited accommodation and water supply and sewerage facilities. Lack of accommodation gives rise to proliferation of

Governor's Broadcast

slums with inadequate sanitary facilities. Often people, due to lack of civic sense and sufficient public conveniences spoil open fields and let out the used water and the solid waste indiscriminately without any concern for the clean environment.

Industries :

Though industries are quite essential for the economic growth of a country, the problems they

create with the environment due to the disposal of wastes cannot be overlooked. Industries such as distilleries, tanneries, textile and chemical units often let out their wastes without or with inadequate treatment, into nearby water courses affecting the quality of water supply systems, damaging crops, creating unsightly appearance and odour problems. Further the gaseous emissions from industries like cement, fertiliser, petroleum refineries, chemical and thermal power plants, containing sulphur dioxide, carbon monoxide, hydrogen sulphide, oxides of nitrogen, particulate matter pollute the air and affect the health



of mankind, animals and plant life. The increasing number of automobiles emit unburnt hydrocarbons, carbon monoxide, nitrogen oxide and lead affecting the health of urban inhabitants.

Local Bodies :

Though in our State we have progressed well in providing water supply facilities, the sewerage facilities are inadequate. With the result that most of the local bodies let out the untreated or partially treated wastes into nearby water courses affecting their quality.

Agricultural Operations :

The increase in population has created an increased demand on food supply and intensive and extensive agricultural operation is resorted to using chemical fertilisers and pesticides to protect the crop. These chemicals often find their way in the run off from the fields to nearby water courses.

Developmental Programmes :

With a view to improve our prosperity we take up many development schemes. Though these schemes are essential to improve our economic conditions, they sometimes interfere with the quality of the environment.

Noise Pollution :

Noise pollution due to automobiles, locomotives, modern jets and industries and loudspeakers is on the increase. The level of noise pollution in Madras City in areas like Anna Salai Post Office has been known to have reached a "highly irritating and uncomfortable" level.

Deforestation :

In addition to the above environmental problems, indiscriminate cutting of trees leading to deforestation has seriously interfered with our wild life and caused soil erosion, land slide and decreased rainfall.

Industrialists

local bodies

and

the public

to preserve

and

enhance the

environment

But man has begun to realise that nature is losing its resiliating capacity and he cannot be exploiting the nature without any restraint. Action has already been initiated in some quarters to repair the damages to the environment. It is high time, we exert our efforts in the direction of protecting the environment from further deterioration. This calls for a concerted effort from all concerned.

As far as industries are concerned, they should institute proper treatment measures for their waste, so that they are disposed of without interfering with the quality of the environment. They should consider the treatment works as part of their industry and provide for them at the planning stage itself and execute them before the industry is put into operation. Local bodies should strive to adopt proper disposal of the domestic waste from their community.

Above all a civic sense should be created among the public to keep their environment clean and desist from throwing of rubbish. We should also protect our forests, which nature has been kind enough to provide, thus paving way for the protection of our precious wild life.

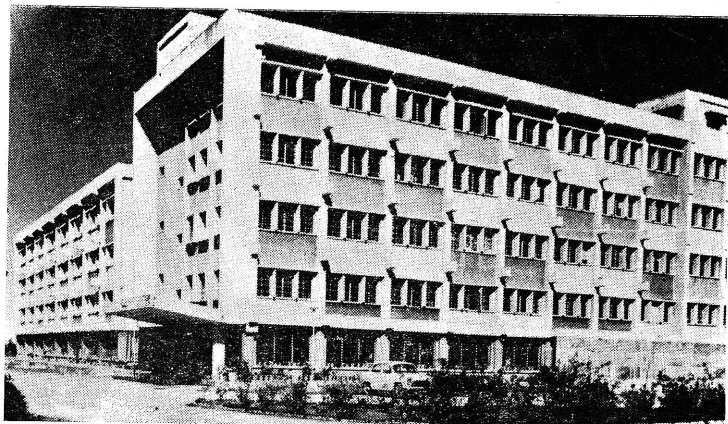
Government being concerned with the growing problems confronting the environment have constituted the Tamil Nadu Environmental Board as an apex body to help in making policies for the environment that fit in with the programmes of development. The Board will also function as a co-ordinating authority of all Departments concerned with powers to look into all aspects of pollution. The noble cause of protecting the environment from further deterioration rests on you all. On this occasion of World Environment Day celebration, as Chairman of Tamil Nadu Environmental Board, I appeal to one and all, industrialists local bodies and public to do their utmost in the preservation and enhancement of the environment.

A. I. R. Broadcast by

Thiru PRABHUDAS B. PATWARI
GOVERNOR OF TAMILNADU

on 5-6-1977

THE HINDUSTAN PHOTO FILMS FACTORY



The Hindustan Photo Films started in the public sector in 1960, was facing numerous technical difficulties and enormous losses. Today, it has tided over its difficulties. A wide range of finished products of photo sensitised goods—Cine positive, cine sound negative, medical x-ray bromide paper and other items are manufactured in the integrated complex at Ootacamund.

The techniques of photo films production are quite complicated and were guarded as secrets by the handful of international enterprises in this line.

In the initial stages, the HPF experienced great difficulties and struggled hard to master the techniques. Beginning with old, outmoded processes, it is now in a position to keep abreast of developments abroad, thanks to our scientists and technologists.

Finishing Plant :

In Ambattur, work on a finishing plant of HPF has started. Films in many types and sizes for the printing industry (graphic art film) industrial x-ray films and cine colour films are to be made. The new project costs over Rs. one crore. Highly sophisticated equipment of British and Japanese origin have been installed. The U.S. firm Du Pont Neurons has helped in the selection.

The H.P.F. in collaboration with the U.S. firm is producing medical x-ray films.

Future Plans : To instal a capacity of 6.15 million sq. metres with a turnover of Rs. 22 crores under the short-term plan has been practically implemented. Polyester base x-ray films, conversion of graphic arts film and colour paper from jumbo rolls have also been taken up. Large scale jumbo conversion programme for the cine positive has also been undertaken. The HPF which now undertakes the conversion of black and white roll film, will soon produce it fully from the base to the finishing stage.

The long-term plan is in three phases. The manufacturing capacity will be stepped up to five million sq. metres for x-ray and one million for graphic art films. Manufacture of polyester base will not only make India self-sufficient but also open up avenues of sizeable exports.

HPF is constantly improving the quality of its products and is becoming a major force in the photographic industry. It has already started making profits after enormous losses over the years. With the successful implementation of its short-term and long-term plans, it is poised to become one of the giants in the highly sophisticated photographic industry.

Welfare Amenities

1. Co-operative Societies :

Consumer Co-operative Stores are being run by the employees since 1964. The Company has participated in the share capital of this stores. The Company has provided rent-free accommodation (with counters etc) and free supply of electricity and water to the stores.

2. Credit and Thrift Society :

A Co-operative Credit and Thrift Society has been organised and is being run for the benefit of the employees. Besides encouraging thrift among the employees through fixed monthly interest-bearing contributions, the Society helps the employees by extending recoverable loans on easy terms. The Company has given the facility to effect pay-roll recovery of the loan repayment besides the monthly contributions.

3. Transport Facilities :

The Company has a fleet of buses for transporting employees from Ootacamund Town to the factory and back. This facility is provided to all the shifts. The buses make a number of trips between INDU NAGAR and the Ooty township for the convenience of the HPF employees' families.

Township children attending various schools and colleges in



Ooty are taken to schools and colleges in buses.

4. Canteen :

A canteen serving food, beverages and eatables at subsidised rates is being run by the company through a Managing Committee, consisting of 5 representatives each of the Management and the employees. The subsidy amounts to Rs. 300/- per head per year. Men and women employees have separate dining halls.

An employee's lunch room has also been provided for those who bring their own food. During all the canteen service hours light stereo music is played. A cup of free coffee and tea per day is served to all employees.

5. Recreation Facilities :

(i) **Staff Club** : A staff club organised by the employees with

the active support of the Company in the form of grants equivalent to the collections raised by the Club by way of members' subscriptions ; and ad hoc fixed grant to purchase capital equipment. The club provides facilities for outdoor and indoor games in a modern club provided to the staff on a rent-free basis.

(ii) **The Club House** : In addition to the Staff Club a Club House has been provided with adequate facilities for all indoor games (including a shuttlecock court). It has 40 members on its roll.

(iii) **Staff Recreation Club Madras** : A Staff Recreation Club organised by the employees of the Branch Office in Madras provides facilities for out-door and indoor games. The Club is also ably supported by the Company including a matching grant equivalent to the subscriptions raised by the Club.

(iv) **Fine Arts Society** : A Fine Arts Society to develop the histrionic talent of the employees has been organised. The Company has provided rent-free accommodation with free supply of water and electricity.

(v) There are a few organisations in HPF started by enthusiastic employees aiming at the

An interior view of the Factory.



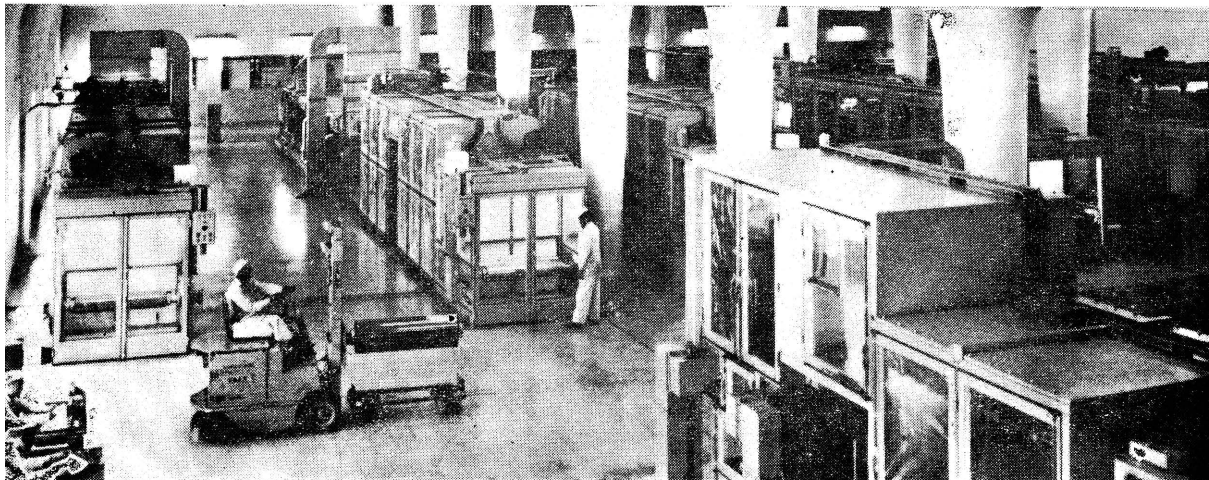
development of internal talents in music, drama, etc., such as Kalaivani Kalai Mandram, HPF Kala Niketan, Goodwill Kala Niketan, Novel Creations and Indu Fine Arts, Madras.

6. Educational Facilities :

An Education Society to look after the educational needs of the employees and their dependents, runs two aided schools — a Primary School with Tamil Medium and a Nursery School with English medium. The Company offers a subsidy to this Society, in addition to the provision of rent-free school accommodation and salaries of additional teachers over and above the sanctioned number of teachers by the Government of Tamil Nadu.

7. Medical Facilities :

A well-equipped First-Aid Centre and Dispensary staffed



adequately by qualified Medical Practitioners and other necessary subordinate staff are functioning. The dispensary has facilities for x-ray therapy and the services of a part-time Dental Surgeon. An Ambulance van is available round the clock. An annual medical check-up of all employees and school children is undertaken.

8. Family Planning :

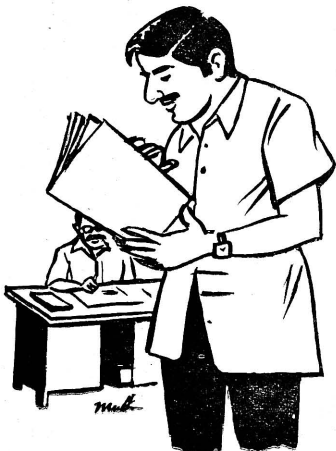
Our Urban Family Planning Welfare Centre is rendering useful service to the employees. The Management has provided rent-free accommodation, free supply of water and electricity for its maintenance, and cash incentive, apart from the State Government's incentive to each employee or his wife who undergoes vasectomy or sterilization operation. Presently the total incentive is Rs.180.

9. Uniforms and Protective Clothing :

Protective clothing is provided to all employees in our Production and Services Department at a cost of approximately Rs. 2,70,000 per year. The staff of Security, Transport, Telephone and Horticulture departments and all the sweepers and peons are given free uniforms.

Advances :

Interest-free festival advances recoverable in convenient instal-



ments are given to the employees. Advances are also given at nominal rates of interest for the purchase of warm clothes, furniture, cycles, motor-cycles and scooters.

11. Madhar Sangam :

The women of the Township have organised themselves into an association called Indu Nagar Madhar Sangam. The Sangam renders social service to the residents in the Township. The Company has provided rent free accommodation, free supply of water, electricity and other such facilities.

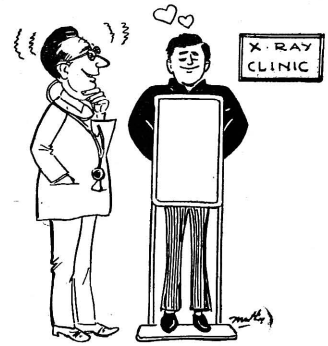
The Madhar Sangam has organised a Library in the Township. The Management has provided the following facilities for running the Library :



- (i) Rent free accommodation with free supply of water, electricity, etc.
- (ii) Capital grant of Rs.5,000 given for purchase of books, racks, etc.
- (iii) Recurring grant of Rs. 100 p.m. to meet the salary of a Librarian in the Library.

The Madhar Sangam has also taken up the responsibility of running the Township Hotel for which the Management has provided the following facilities :

- (i) Rent-free accommodation with free supply of water, electricity, furniture, etc.



- (ii) Capital grant of Rs. 5,00 for purchasing vessels, utensils, etc.

12. Housing :

There are 425 houses of various types in the Company's Township, housing about 25% of the employees at subsidised rates of rent. The township has all modern facilities, such as a shopping centre, a community hall, schools, playgrounds, a post-office, a Bank, etc.

13. Death Relief Fund :

A Death Relief Fund has been organised to give financial aid to the bereaved families of employees who die in harness. It is a voluntary organisation by and among the employees.

14. Cycle Stand :

A cycle stand has been provided for the employees who bring their own cycles.

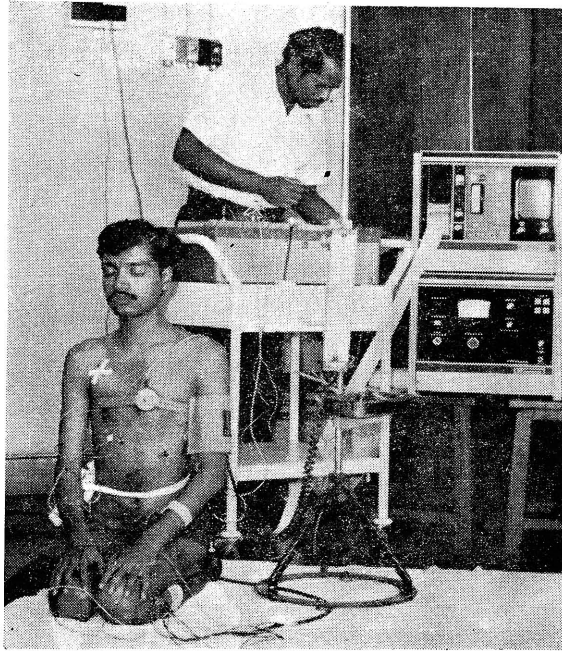
The subsidy per employee per year towards Canteen, Transport and Welfare Amenities amounts to Rs. 650/-.

15. Group Term Insurance :

A Comprehensive "Group Insurance Scheme" has been instituted by the Management, with LIC, covering all employees. The scheme provides for a payment of Rs. 10,000 to an employee in the eventuality of death while in the service of the company. The premia are met entirely by the Management.

PANEL

ON



YOGA THERAPY

The Tamil Nadu Government has appointed a nine-man committee to explore the possibility of introducing yoga therapy in Government hospitals in the State.

The committee, which is headed by Dr. P. Gurusironmani, Director of Indian Medicine, Madras, includes Dr. B. Ramamurthy, Principal of the Madras Medical College, Dr. T. M. Srinivasan, Additional Professor of Bio-medical Engineering, Indian Institute of Technology, and Thiru J. Harigopal Agarwal, honorary general secretary of Yoga Brotherhood, which runs the Kaivalyadhama Yogic Health Centre in Madras.

The committee has been asked to report within three months on whether yoga can be recognised as a system of treatment and to define the objects and aims of that treatment.

The committee has been appointed following the recommendation of the third joint meeting

of the Central Council of Health and Family Planning Committee that yoga may be approved as a recognised form of treatment of diseases.

Thiru Agarwal told Samachar that Government hospitals were associating themselves with the current month-long yoga therapy on respiratory diseases being conducted by the Kaivalyadhama Yogic Health Centre. The hospitals were conducting various tests free of cost and would be watching the progress of patients.

Thiru Agarwal said that the Yoga Brotherhood, which came into being in 1970, had been conducting regular health and therapy courses and had established that diseases could be controlled to a great extent by yoga.

Thiru Agarwal said the Yoga Brotherhood was now devising syllabus for schools and colleges which could also form part of physical training.

Thiru Agarwal said it was proposed to build a yoga hospital where yoga treatment could be given to in-patients.

Dr. M. V. Boule, Deputy Director of Research, Kaivalyadhama, Lonavla, said nearly 30 schools of different faculties were engaged in the research work being carried out at Lonavla in Maharashtra.

The activities of the Lonavla centre covered research, training and treatment. Besides reconstructing several ancient yoga tests, the centre had completed two volumes of the proposed ten volume dictionary of yogic terms. The centre had also a plan to produce a yoga encyclopaedia. It ran a 28-bed hospital in the campus.

Dr. Boule said the Lonavla centre providing two courses in yoga — one of nine months duration and the other of one month. The institution's diplomas and certificates were recognised by Government.

BIO-DATA

OF

MINISTERS

NANJIL K. MANOHARAN

Minister for Finance

Born in 1929, Thiru Nanjil Manoharan hails from Nagercoil. Graduating from the Scots Christian College, Nagercoil, he took his Post Graduate Degree from the Pachaiyappa's College, Madras. He was an active member of the self-respect movement and has taken part in a number of agitations.

When MGR left the DMK he left along with him and now acts as the Deputy General-Secretary of the AIADMK. He was elected Member of Parliament in 1962, 1967 and 1971. A good speaker, he has written a number of books. He has travelled abroad. He has been elected from the Palayamkottai Assembly Constituency.

He has been elected leader of the House.

He is married and has got two daughters and two sons.

THIRU S. RAMACHANDRAN

Minister for Public Works

Thiru S. Ramachandran was born in Puliur, South Arcot District in 1937. He took his B.E. (Hons.), degree from the Annamalai University.

He was the General Secretary of the student wing of the DMK. He has served on several Trade Unions. He joined the State Electricity Board as Engineer in 1959 and resigned his post to take active part in politics.

He was elected to the State Assembly in 1967. He was the Minister for Transport for 5 years from 1971. It was during his ad-

ministration the Transport Corporation started making profits. The credit goes to him for having introduced the worker's participation programme in the Transport Department.

THIRU K. NARAYANASWAMY
MUDALIAR

Minister for Law

Hailing from Karunguzhi, Chingleput District, Thiru K. Narayanaswamy Mudaliar, was born on 12th November, 1912.

He took his M.A. degree from the Pachaiyappa's College, Madras in 1935 and his law degree from the Law College, Madras in 1937. and started practising from 1938. His friendship with Anna goes back to 1930. He has appeared in a number of cases on behalf of the DMK.

He was appointed as the Special Public Prosecutor in 1957 during the Congress regime and served in that capacity for a year. He was appointed as the Advocate General in 1967 during the DMK regime. He acted as Judge of the Madras High Court from January 1967 to November, 1974. He has enrolled himself as a Senior Lawyer in the Supreme Court after his retirement.

THIRU G. R. EDMUND

Minister for Food

Born in 1930 in Arumuganeri in Tirunelveli District, Thiru G. R. Edmund did his schooling in St. Xavier's High School in Palayamkottai. He graduated from Palayamkottai and took his Law degree from Madras.

He started his political career from 1954. He was the Municipal Councillor of Palayamkottai from 1964-69, and member of the Legislative Assembly from 1967-71. He

was the Deputy Speaker from 2nd February, 1969 till the Assembly was dissolved in 1971. He was returned to the Assembly and was a member till January, 1976.

THIRU R. M. VEERAPPAN
Minister for Information & Tourism

Thiru R. M. Veerappan was born in Valathira Kottai in Pudukkottai district on 9th September, 1926.

He finished his schooling in Nachiarapuram in Chettinad. He evinced interest in the Congress in the beginning. He joined the T.K.S. drama troupe in 1939. During that period he had contact with the self-respect movement of Periyar.

He joined the Dravida Kazhgam and was a full-time member of the party and stayed with Periyar, E.V.R. at Erode. Later, he joined the troupe of K. R. Ramasamy. He got in touch with Perarignar Anna in 1947. He stayed with Anna for some time in Kancheepuram.

In 1953, he joined M.G.R.'s drama troupe and was managing the affairs of the M.G.R. pictures. He started Satya Movies in 1963.

He was a member of the general body of the D.M.K. After the AIADMK came into being, he took an active part in politics. He was the Secretary of the Cultural Wing of the AIADMK and at present the Headquarters Secretary of the party.

THIRU ARANGANAYAGAM

Minister for Education

Thiru Aranganayagam belongs to Selvapuram, Coimbatore District. Taking his B.A., B.T. degrees, he served as a teacher in the Government High School in Karamadai. He was the headmaster of the

Thingalur High School. While teaching he took his M.A. degree and took his B.L. degree from the Bagalpur University. He resigned his headmaster's post and started his practise. He was in the DMK party and joined the AIADMK. He won the by-election in Coimbatore in 1973 on the AIADMK ticket.

THIRU K. KALIMUTHU,

Minister for Local Administration

Thiru K. Kalimuthu hails from Ramathevanpatti near Sivakasi. Graduating from the Theagarayar College, Madurai, he actively participated in the language agitation even during his student days. He has taken his M.A. degree also. He was in charge of the student wing of the Southern States of the DMK. He was elected President of the Panchayat Board, Ramathevanpatti in 1970.

He was elected as a member of the Legislative Assembly from Sivakasi in 1971. He has been imprisoned several times for having taken part in a number of agitations.

He joined the AIADMK since its inception.

A good writer, he has written the screen play and dialogues for a film.

THIRU S. RAGHAVANANDAM
Minister for Labour

Thiru S. Raghavanandam, was born on 4th January, 1917 in Pateeswaram in Thanjavur District. He has studied upto S.S.L.C. He won the "Pears Prize" for having passed S.S.L.C. with distinction. He joined the Railways as a ticket collector in 1938 and was promoted as Station Master in 1940. He had participated in the Railway trade union movement and was imprisoned thrice. In 1961, he relinquished his post in the railways at the instance of Arignar Anna and joined the D.M.K. He participated in a number of movements organized by the D.M.K. He served as a member of the Municipal Council of Villupuram from 1964 to 1969. He was elected as the Member of the Legislative Council in 1968 and served for about three years. He has been the President of 53 Trade Unions. He and his wife were imprisoned for having participated in the anti-Hindi agitation in 1965.

He left the D.M.K. in January, 1971 and joined the Congress. He joined the AIADMK on 14-2-1973. He is now the Secretary of the Labour Wing of the AIADMK. In all he has courted imprisonment 13 times

He was imprisoned on 27th March, 1977 and was released after three hours.

THIRU SOUNDRAPANDIYAN

Minister for Harijan Welfare

Thiru Soundarapandiyan was born on 5th May, 1938 in Chittoor, Tiruchi District. He had his education in Musiri High School, Government College, Pudukkottai, Presidency College, Madras and Alagappa College and and took his M.A. degree. He took his law degree from the Law College, Madras.

He joined the DMK in 1964 and was the Secretary of the Chittoor branch. He has served on a number of committees like the Southern Railway Passengers' Association, State Backward Classes Welfare Committee, Public Accounts Committee, Agricultural Income-tax Committee, The Hindu Religious Endowment Board etc. He joined the AIADMK when Thiru MGR founded the party and was made the Treasurer of the party. He was elected from the Krishnarayapuram Constituency in 1971 and has been returned from the same constituency in the present election also.

THIRU C. PONNAIYAN
Minister for Transport

Thiru Ponnaiyan, hails from Tiruchengode, Salem District. Born on 22-2-1942, he did his schooling in Tiruchengode High School and did his collegiate studies in the Jamal Mohammed College, Tiruchi. He took his law degree from Madras Law College. He actively participated in the youth wing of the DMK. He participated in the anti-price rise movement and anti-Hindi agitation and was imprisoned. He joined the AIADMK since its inception.

An advocate, he has appeared before the Sarkaria Commission on behalf of Thiru M G R

He has been elected to the Tamil Nadu Legislative Assembly from the Tiruchengode Constituency in

the General Elections held in June, 1977. He has the distinction of winning the largest number of votes in Tamil Nadu.

SELVI P. T. SARASWATHI
Minister for Social Welfare

Hailing from Cheranmadevi in Tirunelveli District, Selvi P. T. Saraswathi did her schooling in the O.C.A.M. High School in Madurai District and graduated from the Lady Doak College. She did her M.A. in the Madras Christian College. Taking her law degree from the Madras Law College, she started practice from 1964.

She joined the Congress in 1965. She left the Congress on 8th October, 1972 and was in the DMK for a short period. She followed Thiru MGR when he started the AIADMK in 1972. She has appeared in a number of cases on behalf of the AIADMK. Her hobbies are reading and playing Veena.

THIRU P. KULANDAIVELU
Minister for Agriculture

Born on 15th March, 1938, Thiru P. Kulandaivelu, hails from a family of agriculturists. He did his schooling in the Municipal High School, Pollachi. Took his B.A. degree from the N.G.M. College, Pollachi and his law degree from Madras Law College. He underwent imprisonment for having participated in the anti-Hindi agitation in 1965. He is the Member of the Rules and Regulations Committee of the AIADMK.

THIRU K. RAJA MAHOMMED
Minister for Handloom & Textiles

Born on 5th January, 1943, Thiru Raja Mohammed hails from Periakulam, Madurai District. He did his schooling in Periyakulam. After graduating from the Presidency College, he took his B.L. from the Law College, Madras.

Even as a student he took part in the language movement and was first imprisoned for 9 days and later kept in the Palayamkottai prison for 45 days.

He was Secretary of the Madras Corporation Council from 1972 and resigned it last March to contest the Lok Sabha elections.

MILK

A Wholesome Food



The fact that the 100th milk bar has been opened in the city shows that the people of Madras have become aware of the importance of nutrition in their diet.

Milk is a wholesome, nutritious food. It contains a high percentage of protein, fat, vitamins which are vital for growth. Not only children, even adults and old people, can drink milk. The sick and convalescents are advised to take milk. Though meat also contains a high

percentage of protein and fat, a majority of the people in our country cannot afford to eat meat. Therefore, they can substitute it with milk.

Rapid progress has been made in the field of dairy development.

There are three dairy plants in the city, under the T.N.D.D.C. where milk is processed and products are prepared for supply in the city.

The milk from producing areas, is transported by road and rail tankers with insulated stainless steel tanks. The rail transport of milk, started a few months ago, has stabilized now into a daily operation. In fact almost the entire milk from Erode area is now transported only by rail.

The **Madhavaram Dairy** is the oldest in the organization. It has an installed capacity of 1.25 lakhs litres of milk a day. It has however been consistently delivering over 2 lakh litres of milk a day for the last few weeks, without undue strain on the machinery.

The **Ambattur Dairy** was commissioned last April and has been making steady progress. Last year it had delivered besides the city requirements, upto 40,000 litres a day for the Bangalore Dairy. The dairy caters to the city through automatically day vending machines. Seven of these are now functioning and another four are to be commissioned shortly. In order to strengthen the distribution, two new 'Prepac' machines have been imported from France with a packing capacity of 5,000 sachets per hour each. To cut transport time, the machines were specially airlifted. They are being installed at Ambattur Dairy and are expected to go on stream shortly.



Thiru P. Kulandaivelu Minister for Agriculture opens the 100th Milk Bar of T. N. D. D. C. at Dr. Muthulakshimi Reddiar Park at Adayar on 22-7-77

The **Ayyanavaram Dairy** was a small pasteurizing plant run by the Madras Co-operative Milk Supply Union, which incidentally, is the oldest milk supply co-operative in the country and is fifty years old. The Union is concentrating on milk production activities and has entrusted TNDDC with marketing of the milk produced. Along with this the plant at Ayyanavaram is also taken over by the TNDDC and is being modified as a major milk products factory. The work, in progress in stages, is expected to be completed shortly. Already the plant is producing Yoghurt, Ice-cream mix, Khoa, Lassi and Curd, besides packing butter and Ghee for the market.

The marketing activities cover Madras City and neighbourhoods through an extensive and well dispersed network of 463 booths, 100 milk bars, four mobile milk bars and 17 zonal offices.

The task of delivering milk, twice a day at about a 1,000 delivery points is achieved by a fleet of contracted vehicles and is controlled by a 24 hour control room. The difficult task of preventing adulteration rests with the milk inspectors and milk marketing officers who carry out, systematically, a series of inspections. The quality control officers, both on the chemical and bacteriological side regularly test milk and equipment at field points, especially in bulk vending units.

Milk is supplied to the patients in the Hospitals in the city and neighbourhoods table butter, specially packed for them. This was undertaken to ensure that pasteurized butter is made available to them. The Corporation, operates, again as an amenity to the patients, milk bars in all the city hospitals so that wholesome milk is available to the sick and convalescent.

Milk is also supplied to the outlying township of the Atomic Energy Project at Kalpakkam and to the Chingleput Medical College Hospital.

Milk supply to the citizen has been made plentiful and easy. Milk against cards is issued freely. Such milk cards are now available during the entire month, with supplies commencing within 2/3 days of the date of purchase.

70 percent of the customers have been able to make use of it and the number increases every month.

Milk is also available for cash purchase in all milk bars and also in the booths to a limited extent. Card holders can ensure such extra supplies to them through a simple form available at the booths by giving 24 hour notice. Necessarily the milk distributed for cash, has to be based on average demands, to control the return of unsold milk, and this could lead to isolated stockouts when there is an unanticipated increased demand on any day. The position is reviewed constantly to increase the extra milk supply to booths/bars that face frequent stockouts. Since there is no shortage of milk, no restrictions are made on hotels, teashops etc. getting extra milk for cash from booths and bars, though preference is always given to the domestic customer. Supplies to bulk customers of over 10 litres are made only in cans.

The Corporation has expanded its sales outlets for the convenience of the public, by distributing butter, ghee and milk powder through the 'Amudam' departmental stores and selected major shops of the Tamil Nadu Civil Supplies Corporation. 43 private retailers with refrigeration facilities also now deal in table butter, ghee and milk powder made by TNDDC. This network is being expanded rapidly to get close to the consuming public. A door to door delivery service is also being tried out in AnnaNagar and Chetput areas.

The Corporation has introduced skim milk and whole milk powder in small packs for trial marketing in Madras City. These are made in the most modern plant of TNDDC at Madurai. Skim Milk powder is fat-free milk powder, and can be used as a thickening agent, leavening agent, and flour additive in cooking. It is also good as an additive in ice-cream, puddings, custards etc.

The marketing unit has also been trial marketing during the last few weeks curd and lassi, both salt and sweet. Since consumer acceptance seems good these products will be introduced regularly into the market.

A higher fat milk at 6% fat is to be introduced to meet long



Bottling Machine

standing demand from certain sections of consumers by October-November 1977.

In order to cater to the needs of the customers whose consumption, per family per day is less than 0.5 litre, one of the bottling lines have been modified to fill quarter litre bottles and milk in much smaller bottles will be available for them. This is available in six zones of Washermanpet, Triplicane, Ayyanavaram, Perambur, Guindy and Anna Nagar and will be extended to other areas in phases.

To meet the increasing demand for milk in polythene sachets, two new machines have been airlifted from France and are under installation. The installation has been done by the Engineers at Ambattur without foreign know-how. Milk in sachets will be available in plenty in all areas shortly.

TNDDC tries to serve the customers to their full satisfaction. They are heavily dependant on the customers for valuable feed-back on deficiencies noticed, as well as on suggestions for improvements. Every case reported to the Zonal Offices and to "ALL 24 HOUR SERVICE" is investigated in detail and corrective action is taken.

It may be of interest to note that there were about 20 Milk Bars in 1975 in the City. Today due to the increased patronage by the "nutrition conscious" citizens of Madras City, the 100th Milk Bar has been opened and with the continued patronage it will grow further.

“Wide dispersal of industries and relief to farmers will bring about a balanced economy for Tamil Nadu.”

A Vote-on-Account for the first five months of the current financial year was approved by Parliament during President's Rule. We are now presenting a revised Budget for the year and seeking the approval of the Legislature for the annual appropriation. Within the short time and the limited flexibility available to the new Government, we have carried out a quick review of the Budgetary provisions and we have readjusted provisions wherever necessary in line with our basic priorities. This process will be a continuous one and I would like to assure the House at the very outset that during the course of the year adequate provisions and necessary adjustments will be made for implementing the projects and programmes to which we decide to accord priority.

We have had to frame the Budget in the context of the overall economic situation in the country as a whole and Tamil Nadu in particular. After a period of relative price stability, inflationary forces are again reasserting themselves in the national economy. In Tamil Nadu, while the increase in the price of foodgrains has been more or less under control mainly due to the formation of the Southern Zone, there have been price increases in edible oils, cash crops and manufactured goods. The instruments of

Says

Thiru K. MANOHARAN

Minister for finance

monetary and fiscal policy for ensuring price stability, while promoting growth and employment, are mainly with the Central Government. Our role consists in giving them constructive co-operation to implement national economic policies on sound lines and while doing so, to formulate and implement our own programmes in such a manner that investment and welfare are promoted without leading to financial difficulties or distortion of priorities. We have to balance immediate and short-term needs with adequate provisions for the long-term development of the State. Deficits have to be avoided ; at the same time, the tax burden cannot be unduly increased. The demands of Government and other employees have to be reconciled with developmental priorities and adequate provisions for meeting the basic minimum needs of the people. Production and employment have to be stepped up but not at the cost of price stability. Existing schemes have to be continued and at the same time, many new beginnings have to be made. In this difficult situation,

all problems have to be approached in a fair and balanced manner while formulating the Budget.

The present unsatisfactory position of Centre—State financial relations has been aptly described in the opening paragraph of the report of the Study Team of the Administrative Reforms Commission under Thiru M. C. Setalvad. As the report points out :

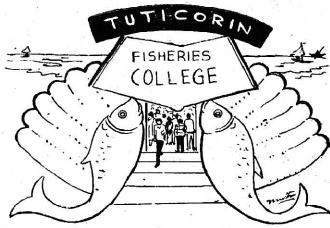
The financial position of our State has been placed at a serious disadvantage in comparison with most other States due to the loss in revenue arising from the social welfare policy of Prohibition. To our disappointment, repeated representations to the Centre have not been successful in making them accept the principle of compensating this loss which arises from the fulfilment of a Directive Principle in the Indian Constitution. The recent appointment of the Seventh Finance Commission will give us the opportunity to press our claims on this and other important issues affecting the interests of Tamil Nadu.

Annual Plan

Adequate provision has been made for the Annual Plan 1977—78, with special emphasis on core sectors such as Agriculture, Irrigation, Power and Industry. At the same

Finance Minister is presenting the Budget for 1977—78 in the Legislative Assembly on 25th July 1977.





time, equal attention has been given to social services such as drinking water-supply, education, health and the welfare of Scheduled Castes, Scheduled Tribes and Backward Classes. The size of the Annual Plan for the current year as presented to Parliament was Rs. 260 crores. This has now been increased to Rs. 263.5 crores. The provisions in the Plan for major sectors are : Power —Rs. 94.9 crores ; Irrigation —Rs.24.7 crores ; Agriculture and allied sectors — Rs. 30.2 crores ; Industry — Rs. 13.8 crores ; Transport and Communications — Rs. 25.2 crores ; Water-Supply and Sewerage — Rs. 26.5 crores ; Education — Rs. 13.3 crores ; and other social and economic services — Rs. 34.9 crores.

Farmers will be ensured to get a better price for their produce though expanded markets under the guidance of the Directorate of Agricultural Marketing.

Due to the failure of the South-West monsoon there was a shortfall in agricultural output in 1976-77. In that year, according to a quick assessment, the production of foodgrains is estimated at 74 lakh tonnes; sugarcane (gur) production is estimated at 13.5 lakh tonnes, oilseeds at 13.4 lakh tonnes and cotton at 3.6 lakh bales. In the current year, we are aiming at a target of 84 lakh tonnes of foodgrains, 14 lakh tonnes of sugarcane (gur), 14.9 lakh tonnes of oilseeds and 4 lakh bales of cotton. We shall take all necessary steps to ensure that these targets are achieved without shortfall.

Necessary provisions have been made in the Plan for the strengthening of State seed farms and increasing the distribution of high-yielding varieties. Soil conservation is another area of priority for which a provision of Rs. 302 lakhs is contained in the Budget. This programme is of particular benefit to dry farming areas and also provides substantial

scope for the creation of employment. Particular emphasis is being given to diversify agriculture through the promotion of cash crops, vegetable production and oilseeds. Agricultural marketing has hitherto been relatively neglected. We have decided to create a separate Directorate of Agricultural Marketing which will help market committees for improving their services to agriculturists and to expand marketing facilities available throughout the State so as to ensure that farmers get a better price for their produce. The Government of India are formulating a scheme for crop insurance based on the report of an expert committee. We have requested them to expedite the introduction of this scheme and to take up this programme as widely as possible in Tamil Nadu.

In the Fisheries sector, it will be our policy to ensure that fishermen are enabled to secure a better price for their catch by reducing and eliminating the activities of middlemen. A direct link has to be established between credit, marketing and processing. Increased facilities for the processing and export of marine products from Tamil Nadu will be created directly by Government and also through the joint sector. A Fisheries College will be opened in the current year at Tuticorin under the Tamil Nadu Agricultural University. In addition to the normal programmes for marine fisheries, a number of schemes have been included for developing inland fisheries. Under the Animal Husbandry programme, 15 key village blocks will be set up and 5 veterinary dispensaries opened. A new dairy complex at a total cost of Rs. 3 crores is proposed to be set up at Erode with facilities for milk processing including milk powder production and cattle feed manufacture. Forestry programmes provide for the planting of 51,104 acres under various schemes.

Rs. 145 lakhs have been provided for Government's participation in the lending programmes of the State Land Development Bank. This will enable them to achieve a lending level of Rs. 18 crores for providing credit to agriculturists. Other important features of co-operative development which are being supported are the strengthening of consumer and processing societies at a number of places and increasing the facilities for the provision of consumption credit and jewel loans.

Irrigation

It is noteworthy that the Plan outlay on Irrigation which was Rs. 11.9 crores in 1975-76 will be more than doubled to the level of Rs. 24.7 crores in 1977-78. In the past, several irrigation schemes had been announced without adequate provisions being made in the Budget to implement them. The construction of irrigation projects was also unduly prolonged. We have now provided adequate funds to complete seven irrigation schemes in the current year benefiting 35,000 acres of new area and stabilising irrigation in 77,000 acres. An important new scheme that will be taken up in the current year is the formation of a reservoir across Kamandalur at Shenbagathope in North Arcot district at a cost of Rs. 3.55 crores. This reservoir will benefit 1,962 acres of new area and stabilise existing irrigation in 10,386 acres.

The difficulties experienced in the Cauvery Delta have once again highlighted the need for efficiency and economy in the use of water in the old irrigation systems of Tamil Nadu. In this context, the Cauvery modernisation programme will have to be proceeded with expeditiously. A provision of Rs. 3 crores has been made in the Budget for this purpose. Honourable Members will be happy to know that arrangements have been concluded with the World Bank in respect of the Periyar Improvements scheme. The total project cost will be Rs. 41.04 crores. This scheme for which a provision of Rs. 3.16 crores has been made in the Budget will benefit 38,000 acres of new area besides stabilising irrigation in the existing ayacut.

The Budget contains a provision of Rs. 4.7 crores for the special minor irrigation programmes and desilting and reclamation of tanks. Apart from investment on minor irrigation in such public sources, provisions are available in the Co-operation sector for assistance to farmers for putting up irri-



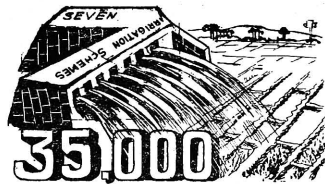
gation wells. As part of the rural electrification programme, about 30,000 pumpsets will be given power connections in the current year. While we place high priority on the full utilisation of ground-water resources in the State, particularly in the context of our having more or less fully utilised the available surface water, it has to be pointed out that in many areas of this State there is over-exploitation of ground-water resources. This has resulted in the water table going down from year to year. This trend is dangerous in the long-run and has to be taken note of in the future interests of the State. In the coming months, the Government will study this problem in all its aspects with a view to ensure ground-water conservation and regulation.

Power Projects

The present installed capacity in Tamil Nadu is 2,364 MW. In 1977-78, Kundah-IV expansion and Suruliyar projects will be commissioned adding 145 MW to the grid. A provision of Rs. 43 crores has been made for the Tuticorin thermal project (2 X 210 MW). I may assure the House that this project is being implemented according to schedule with the first unit due to be commissioned in December, 1978 and the second unit in June, 1979.

Planning for Power has to be a continuous process. In this context, we welcome the decision of the Centre to go ahead with a 200 MW plant at Neyveli based on the existing mine. It is also welcome that the Centre has sanctioned detailed investigations for a second mine-cut at Neyveli. It is necessary to ensure that these investigations are completed quickly and decisions taken to proceed with the second mine-cut and a super thermal power station based on it. We have also represented to the Central Government that the Kalpakkam project should be expedited and a second nuclear project should be set up in Tamil Nadu.

A project to add a third unit (210 MW) at Tuticorin has already been formulated and Central approval to this scheme is expected very shortly. It is our intention to commence work on this expansion also in the current year itself and to have the third unit commissioned as soon as possible after the commissioning of the first two units.



Along with planned increases to generation capacity, attention is also being paid to improving the quality of power supplied and to the reduction of line losses. With these objectives in view, the outlay on transmission and distribution is being doubled from Rs. 14 crores in 1976-77 to Rs. 28.5 crores in the current year.

Industry

The Central Government have approved the first phase of the Salem Steel Plant with an investment of Rs. 127 crores. We have represented to the Government of India that adequate funds should be provided to expedite implementation of this project.

A sizable provision of Rs. 13.77 crores has been made for various industrial projects and programmes in the State's Annual Plan. The overall investment in TIDCO's public sector and joint sector projects in 1977-78 will be of the order of Rs. 20 crores. Work is proceeding according to schedule on the public sector cement plant at Ariyalur which have a capacity of 5 lakh tonnes per annum, the total investment being Rs. 29 crores. The co-operative sugar projects at Vellore and Tiruppathur and the public sector sugar mill at Thanjavur were commissioned in 1976-77. The sugar project at Perambalur is expected to be completed in September, 1977. In the Budget, provision has been made for an additional sugar mill. Special emphasis is being given in our industrial programmes for schemes relating to

leather, electronics and sericulture in which there is considerable potential in Tamil Nadu.

Rural Industries

It is the declared policy of our Government to plan for and achieve a wide dispersal of industries throughout Tamil Nadu in the rural and semi-urban areas. Although Tamil Nadu has a large number of registered small-scale units of the order of 50,000, it is unfortunate that a number of these units are under-utilised or have been closed down. In this context, we have decided to undertake a quick and detailed study of the causes for under-utilisation of capacity in existing small-scale industries. Based on this survey, necessary assistance, whether it relates to technical factors or supply of raw materials or provision of finance or marketing assistance, will be provided so as to ensure that dormant and closed units are revived and put back on stream.

A durable solution to the problem of unemployment, and particularly to the problem of educated unemployment, can be found only by creating the maximum possible scope for self-employment in modern small-scale industries, village and cottage industries, trades and service activities. It has been estimated that 4,000 new small scale industries were registered last year. As compared to this, we have accepted a target of 10,000 small-scale industries to be commissioned in the next twelve months. This will give employment opportunities to at least about 50,000 persons. For this purpose, the State Directorate of Industries and the Small Industries Development Corporation (SIDCO) will function as extension agencies assisting small entrepreneurs in a number of ways. Simultaneously, advice and assistance will be given for promoting self-employment opportunities in such occupations as those of cobblers, tailors, washermen, goldsmiths, blacksmiths, carpenters, plumbers and repair services. This scheme for which institutional finance will be mobilised, is expected to provide employment to at least one lakh persons during the next twelve months.

The new Government is committed to promoting employment for women in rural areas with priority being given to women with-



out male support. Such employment in home industries and cottage industries will supplement the income of rural families and will also promote the social emancipation of women. In organising home industries, careful attention has to be paid to marketing arrangements and production in these units has to be coordinated with the consumption pattern within the State and consumer demands in other States. We are setting up an expert committee for home industries to advise Government on all these aspects and to formulate specific proposals which can be implemented quickly and effectively.

Handloom Development

Handloom development is a sector to which we attach very high priority. It is of particular importance to the economy of Tamil Nadu and to the lives of 20 lakhs of



people who depend on this industry. Institutional facilities to the handloom sector are now being provided through the co-operatives and our target is to include 30,000 additional weavers within the co-operative fold in the current year. This Government will take necessary steps to remove the difficulties experienced by weavers in taking advantage of these facilities. Government will come forward with the necessary financial assistance for the procurement and marketing of handloom cloth. We welcome the Government of India's decision to entrust the production of controlled cloth in the form of saris and dhotis to the handloom sector. This measure will provide steady employment to about 25,000 weavers in Tamil Nadu. Intensive handloom development projects will be commissioned in the current year at Salem, Madurai and Kurinchipadi. Provision has been made in the Budget for design centres to be established at Madras and Madurai in order to enable the reorientation of handloom production on attractive lines to suit the

changing patterns of consumer demand. Co-optex has taken up a detailed production programme covering two lakh handlooms in the co-operative sector in order to improve the marketability of handloom cloth.

Social Welfare Services

The new Government is committed to a policy of giving the highest priority to schemes which are designed to improve the living conditions and economic opportunities of the weaker and vulnerable sections of society. In addition to general development programmes which aim at improving employment opportunities and income levels for the entire population, we should directly redress the traditional disabilities suffered by such sections of the population as Harijans, tribal population, backward classes, fishermen, handloom weavers and destitute widows. At the same time, the basic minimum needs of people in rural areas in respect of drinking water, educational and health facilities, housing, roads and transport should be assured to them through concrete schemes which will be implemented according to a strict time schedule. This is the approach which we have tried to adopt in this Budget with a sense of urgency and which we shall pursue in all the developmental and welfare activities relating to the rural areas and the weaker sections in the future.

Rural Water Supply

Good and adequate drinking water is a primary need. A comprehensive survey of drinking water facilities in rural areas has been carried out in Tamil Nadu covering 55,000 habitations. This survey has revealed that out of these only about 38,450 habitations have the benefit of a good and adequate source of drinking water supply. Among the balance of 16,550 habitations, highest priority has to be given to 4,010 habitations covering a population of 17 lakhs which do not have a potable drinking water source within one kilometre. It has been estimated that the provision of water supply to these habitations will cost about Rs. 14 crores. We have decided to tackle this problem as a first priority. We are providing Rs. 6.65 crores in the Budget and we expect to receive an additional amount of Rs. 3 to 4 crores in the Centrally-sponsored

sector for this purpose in the current year. It will be our objective to provide all these habitations with adequate and potable sources of drinking water within the next twelve months. Most of them will be covered by the end of the current year itself. Priority will be given in this programme to habitations of Harijans, tribal population and backward classes.

Harijan and Tribal Welfare

The total allocation in the Budget for the welfare of Scheduled Castes, Scheduled Tribes and Backward Classes is Rs. 23.57 crores. We have taken certain important decisions in regard to educational concessions for children belonging to Scheduled Castes and Scheduled Tribes. From this academic year, we have decided to reimburse special fees and examination fees and to supply books free to all children



belonging to Scheduled Castes and Scheduled Tribes up to the school-leaving stage irrespective of the income limits of their parents. In the post-matric stage, we have decided to make tuition fees free to all children belonging to Scheduled Castes and Scheduled Tribes regardless of the income of their parents. As a result of these decisions, there will be free education at all stages to Harijan and tribal children. In addition to completely free education up to the school-leaving stage, such children will also have the benefit of free books. An additional provision of Rs. 26 lakhs will be made for this scheme.

A significant increase to various provisions for the welfare and uplift of the tribal population in the State has been made. The outlay on the tribal sub-plan will be increased from Rs. 80 lakhs in 1976-77 to Rs. 153 lakhs in the current year.

Certain new schemes are being introduced for indigent widows and other women in straitened circumstances. It is proposed to give an

annual stipend of Rs. 150 for 1,000 poor women in the age group of 16—30 whose family income is less than Rs. 3,000 per annum in order to help them acquire vocational training in the form of shorthand and typewriting. Books and notebooks will be given free of cost to the children of widows whose family income is less than Rs. 3,000 per annum. We propose to set up Guidance Bureaux in different parts of the State for helping widowed women to get assistance for obtaining life insurance and provident fund benefits, advice on educational and employment opportunities and guidance regarding admission of their children in orphanages and educational institutions.

Welfare of Fishermen

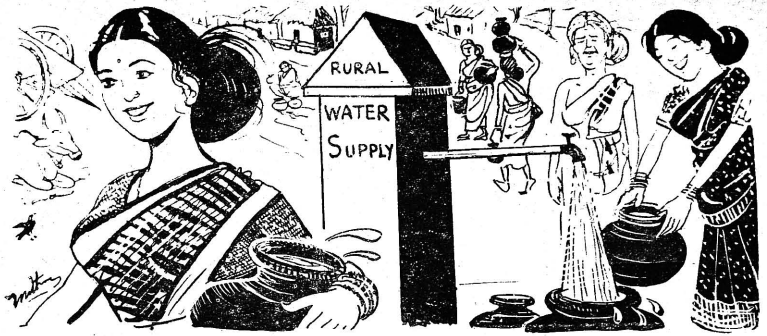
A special welfare fund for the benefit of fishermen and their families will be started. The families of fishermen lost at sea will receive an immediate grant of Rs. 5,000 of which Rs. 2,000 will be in cash with the balance being paid in suitable instalments. An additional amount of up to Rs. 5,000 per family will be spent on the rehabilitation of their widows and children so as to make them self-reliant. This will be a permanent scheme for the welfare of fisherman and it is proposed that every year Government will make a grant of Rs. 2 lakhs to the new welfare fund with an equal amount being found from the Chief Minister's Public Relief Fund.

Labour Welfare

The Labour Welfare Board is undertaking a number of schemes for workers' welfare. Government will assist them to provide comfortable and inexpensive accommodation for workers' representatives and trade union leaders who come to Madras for discussions with Government on the settlement of labour problems.

Rural Housing

Rural housing has hitherto been a neglected sector. It is now proposed to earmark Rs. 2 crores in the lending programme of the Tamil Nadu Co-operative Housing Society for rural housing. About 50 rural co-operative housing societies will be established in the current year. In the case of house building loans for Harijans and Scheduled Tribes, the entire interest will be subsidised by Government so that they can have the benefit of interest-free loans for providing themselves with



this basic need. A provision of Rs. 3.2 crores has been made in the Budget for Harijan and Fishermen Housing Schemes in the remaining 7 months.

Rural Roads

Fair-weather roads linking smaller villages with bus routes and other main roads is an important requirement in the rural areas. We are increasing the provision for this purpose by Rs. 60 lakhs in the current year. We welcome the provision in the recent Central Budget of Rs. 20 crores for approach roads in rural areas. We shall press the Centre for obtaining a due share to Tamil Nadu in this allocation.

It will also be the Government's policy to improve transportation facilities in rural areas and to extend them, in appropriate places through the wider use of mini-buses.

Rural Health

Rural areas have been largely neglected in the provision of health facilities. An immediate beginning has to be made in redressing this imbalance. We propose to take a major initiative for extending medical relief to outlying villages. This scheme will be started in the current year in 24 selected blocks in the State. In each block, two mobile teams will operate covering each village at least once a week. The mobile medical team will also distribute necessary drugs and will be supported in the field by paramedical personnel who will be located in places covering a population of about 3,000.

As a supplement to this scheme, we also propose to encourage reputed voluntary agencies to run mini health centres each of which will cover a population of 5,000. Fifty-four voluntary organisations have come forward to take up such mini health centres and the Government will be supporting them with

50 per cent for the recurring cost.

Panchayat Unions whose financial position is weak are now not able to run their dispensaries properly. We have, therefore, provided for provincialising 20 panchayat union dispensaries in the current year which are in Grade V and Grade VI panchayat unions of poor financial position.

One other major new scheme is the medical examination of school children with special emphasis on detection of leprosy which is prevalent in Tamil Nadu in an endemic form in Chengalpattu, Dharmapuri, North Arcot, South Arcot, Salem, Tiruchirapalli and Pudukkottai and in certain areas of Thanjavur, Madurai and Coimbatore. Under the new scheme, school children up to the age of 11 in these areas will be given a thorough medical examination for the early detection and cure of leprosy and other diseases affecting children. This scheme will cover 45 lakh children.

Education

In the Educational sector, we are committed to a policy of vocationalising the higher secondary school stage based on detailed surveys of employment opportunities in each district. The 10+2+3 pattern of education will be implemented in Tamil Nadu with this primary objective in view. A provision of Rs. 3 crores has been made in the Budget for the purpose. To provide for additional enrolment at various stages of school education, provision has been made in for the recruitment of 1,100 new teachers. We are implementing the decision to extend UGC scales of pay to teaching staff in Universities. A decision has also been taken to extend revised scale of pay based on the UGC scales to teaching staff in Government colleges and Government-aided private colleges. These decisions will take effect from 1st April 1976 with monetary effect from 1st January 1977.

Special emphasis will be given to mass literacy programme. This programme and the schemes which are being implemented for non-formal education should go a long way in promoting universal education and in tackling the problems of wastage and stagnation in school education.

Students in all educational institutions should be encouraged to pay special attention to sports and to physical fitness. A provision of Rs. 16 lakhs for the Tamil Nadu Sports Council and Rs. 3 lakhs for a new scheme to assist educational institutions to provide gymnasia for students has been made. We shall also provide Rs. 5 lakhs for a new scheme to provide other amenities such as lunch rooms, indoor sports rooms and cycle stands for students in colleges.

Tamil Development

In the Governor's address, the policy of Government to preserve and promote Tamil literature, art, historical and archaeological research was indicated. The Budget will provide for specific schemes in this regard. We shall assist Universities and institutions in other States to introduce part-time diploma courses in Tamil. Pension at the rate of Rs. 75 per month will be given to poor Tamil Scholars and due provision will be made in the light of demand. Steps will be taken to preserve important monuments such as the Tirumalai Naicken Mahal, Ramalinga Vilas in Ramanathapuram and the Danish Castle in Tranquebar and to have permanent museums in these places. Loose sculptures and valuable old palm-leaf manuscripts will be collected and preserved. A scheme for this purpose will be taken up in four districts in the current year. We are also setting up an expert committee to formulate a programme for the translation and publication of books in other languages in Tamil. Valuable Tamil classics will also

be translated and published in other languages.

Urban development

While taking all necessary steps for developing the rural and semi-urban areas so as to discourage the migration of people to towns, we also have to improve the living conditions of the poor in urban areas. Long neglected essential facilities in terms of water-supply and sewerage, roads and transportation, housing, slum clearance and slum improvement have to be provided in growing urban centres. Against this background, we are implementing a major integrated urban development project in Madras City with the assistance of the World Bank. A provision of Rs. 6.95 crores has been made for this scheme in the Budget. A provision of Rs. 3.6 crores has been made for the construction of tenements for erstwhile slum dwellers. We are also proceeding with the programme to improve all slums in Madras City, Madurai, Coimbatore and Tiruchirappalli with an overall outlay of Rs. 5 crores so that they can be provided with essential amenities such as drinking water-supply, public sanitation and street lighting. A provision of Rs. 12.09 crores has been included in the Budget for urban water-supply and drainage schemes covering the Corporation of Madras, 20 municipalities and 70 town panchayats. This includes a provision of Rs. 2.5 crores for the Siruvani water-supply scheme in Coimbatore and provision for water-supply schemes in Tiruchirappalli and other municipalities besides drainage schemes for Madurai, Tiruchirappalli, Tiruvottiyur, Tirunelveli and Tuticorin.

State Raffle

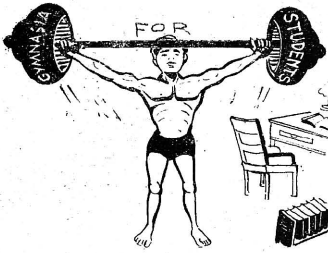
The Tamil Nadu State Raffle Scheme was announced by our late Chief Minister Anna while presenting the Budget for 1968-69. As Anna explained while inaugurating

the scheme, the State lottery, the proceeds from which are spent on welfare schemes, should not be looked upon as a form of gambling but as an opportunity to contribute to the welfare of the poor. In his inimitable words, "if you win, the benefit is for your home; if you lose, it is for the homeland". We have decided to continue this scheme but with certain changes in the prize structure which will result in a larger number of prizes and a wider public appeal. The net proceeds from the scheme will be allotted for increasing drinking water-supply facilities in rural areas.

Employment

In all projects and programmes, our primary concern is to increase employment opportunities. Although the problem of unemployment is a national problem, it is a matter of regret that Tamil Nadu has a relatively high proportion of the unemployed and under-employed, both unskilled and educated. In rural areas, employment has to be promoted particularly in the non-agricultural season. This is the only way in which income for the rural people can be made stable throughout the year. There are substantial provisions in the Budget for schemes such as medium and minor irrigation, rural road, soil conservation and afforestation. The overall outlay for such schemes is Rs. 51.7 crores. What is necessary is to implement these schemes in a timely and co-ordinated manner so that employment potential is maximised in the summer months. It is our idea to create a suitable organisation on the lines of a land army for this purpose. This organisation will tap the manpower potential among the young and able-bodied in the rural areas and utilise this potential for the creation and maintenance of permanent assets for the benefit of the rural people. Against this background, we are setting up an official committee under the Chief Secretary, which is expected to give recommendations for launching a massive employment effort in the summer months. The schemes which I have already referred to in the industrial sector should provide a substantial volume of employment to self-employed persons under various trades and skills as also to young entrepreneurs setting up small-scale units. The educational reform connected with the 10+2+3 pattern will greatly improve opportu-





nities for vocational education and will be linked to setting up of small industries and self-employment schemes in future years. We are also giving higher priority to technical training schemes. About 1,000 additional places will be filled in the existing Industrial Training Institutes in the current year.

Benefits to Govt. Staff

I would like to take this opportunity to assure the House that the State Government will consider the demands of Government employees, employees of local bodies and teachers for better emoluments and other benefits in a fair and sympathetic manner. Government will strive its utmost to meet these demands within the inevitable constraints imposed upon it by the resources available to the State and the needs of development.

We shall be shortly setting up the Third Pay Commission. The terms of reference of the Pay Commission will be comprehensive. It will not only advise Government on the rationalisation and improvement of the structure of pay and allowances but will also be requested to examine and remedy existing anomalies and make suitable recommendations in regard to amenities and facilities available to Government employees in the form of health facilities, housing, educational opportunities for children and social security. This will enable Government to take a comprehensive and coordinated view of emoluments as well as the overall living standards of its employees.

Since the implementation of the recommendations of the Second Pay Commission in 1970, additional dearness allowance has been given by Government on seven occasions. These along with the interim relief of Rs. 10 per month announced in June 1977 amount to a total cost of 7.3 lakh Government employees, local body employees and teachers, 3.4 lakh employees at the lower pay

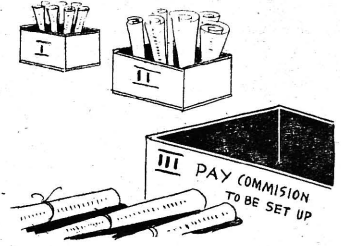
levels are already receiving dearness allowance, including interim relief, equal to what they would get if the Central D. A. rates had been made applicable. As a measure of relief to others, we have now decided to increase the interim relief from Rs. 10 to 20 per month for employees whose pay is Rs. 200 per month or above. This will benefit 4.1 lakh employees and will cost Rs. 4.9 crores per annum in addition to the annual cost of Rs. 8.8 crores for the interim relief announced in June 1977. The increased interim relief will also be extended with effect from the pay for July 1977 to be drawn on 1st August 1977.

Rental housing for Government employees is an important scheme. We have stepped up the provision for this scheme from Rs. 150 lakhs to Rs. 200 lakhs in the current year. The increased provision will enable the construction of 660 additional units for low-paid employees. A provision of Rs. 38 lakhs has been made for Police housing. Increased provision will be made for this scheme in the future.

We propose to introduce a major new retirement benefit scheme for the benefit of the 7.3 lakh employees in Tamil Nadu. Under the scheme, a monthly deduction of Rs. 15 will be made. Along with interest on these deductions, an additional amount of gratuity will be contributed by Government so that even employees retiring within a few years of the inception of this scheme can derive a sizable benefit. An employee retiring after 25 years of service will derive a benefit of Rs. 10,000 although his own contribution during this period will be only Rs. 4,500. The receipts under the scheme will be utilised for providing benefits to employees by way of increasing the house building advances to Government servants, providing additional funds for the Tamil Nadu Rental Housing Scheme and for house building loans through the Tamil Nadu Co-operative Housing Society for local body employees and teachers. We shall consult employees' unions in regard to the details of the scheme and shall implement it as soon as possible based on consultations with them.

Financial Position

I shall now turn to the financial aspects of the Budget. The Budget Estimates for 1976-77 envisaged a



revenue deficit of Rs. 5.32 crores and an overall deficit of Rs. 2.98 crores. In the Revised Estimates, the revenue deficit is estimated at Rs. 17.28 crores. However, in the overall position, we expect a surplus of Rs. 9.82 crores at the end of 1976-77.

Revenue receipts in 1977-78 are estimated at Rs. 633.24 crores and the expenditure on the revenue account at Rs. 663.40 crores resulting in a revenue deficit of Rs. 30.16 crores. The capital expenditure in 1977-78 will be Rs. 62.88 crores. The overall effect of the transactions on the Revenue, Capital and Loan accounts is now estimated to result in a deficit of Rs. 18.89 crores at the end of 1977-78. In the earlier estimates presented to Parliament, a revenue deficit of Rs. 9.9 crores and an overall deficit of Rs. 13.92 crores had been projected. The worsening in the revenue position since then is mainly due to the grant of interim relief to Government and other employees in June 1977, conduct of elections to the State Assembly, the decision to introduce UGC scales for teaching staff and certain shortfalls on the receipts side. Due to the opening balance and some improvement in capital receipts, the overall position has, however, worsened only to the tune of Rs. 5 crores as compared to the estimates presented to Parliament.

Revisions in tax structure

I am sure that the House will now want me to turn to the subject of revisions in the tax structure since by now your patience must be strained and your curiosity must need satisfaction. My first search was for a taxation measure that will not be widely unpopular. This was a difficult search but has met with some success. Consistent with our commitment to the policy of Prohibition and having regard to the existing rates in neighbouring States, we propose to increase the excise duty on Indian made foreign liquor

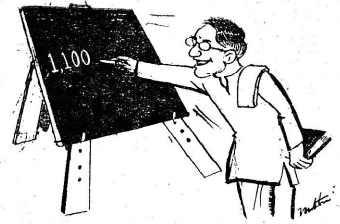
from Rs. 14 per proof litre to Rs. 17. This measure will bring health to the consumers, and if not, at least wealth to the exchequer. It is also proposed to increase the excise duty on rectified spirit exported out of the State from 50 paise to 80 paise per bulk litre. These changes are estimated to yield an additional revenue of Rs. 50 lakhs per annum.

Irrigation rates were increased for I and II class sources and a special assessment on commercial crops was levied in the 1976-77 Budget when Tamil Nadu was under President's rule. These levies were, however, postponed in the revenue year that ended on 30th June 1977. We have now decided that these levies which were postponed will not be collected. We have also decided to reduce the increased irrigation charges for I class sources from Rs. 12 to Rs. 10 per crop per acre and for II class sources from Rs. 10 to Rs. 8 per crop per acre. In regard to the special assessment on commercial crops, we have decided to reduce the rate for grapes, sugarcane, plantain, coconut, betel and turmeric from Rs. 20 to Rs. 15 per acre. The assessment and collection of the commercial crop cess on shorter-term crops, namely, tobacco, chillies, irrigated cotton and irrigated groundnut is likely to lead to hardship to farmers. We have therefore decided to withdraw the levy of Rs. 12.5 per acre on these crops altogether. These major concessions will lead to a loss of revenue of Rs. 2.5 crores per annum.

In Tamil Nadu, we have a very complicated system of consolidated wet assessment, special water rates for new projects, additional wet assessment and water cess. This structure of water rates has evolved over years and needs to be streamlined and rationalised in the light of the present situation. This has to be done having regard to the corresponding rates in other States, the need for ensuring an equitable incidence among farmers in different areas of the State, the ability of

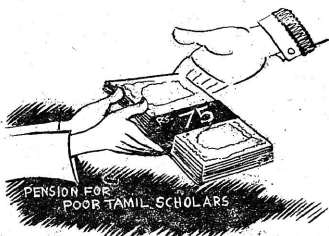
farmers to pay such charges and the need for incentives to agricultural production and in a manner that will promote the efficient use of irrigation water. At the same time, we have to ensure that beneficiaries pay for benefits they receive and sufficient funds are generated for the maintenance and expansion of irrigation works. We have decided to set up a committee which will make a comprehensive study of irrigation and irrigation-related charges in Tamil Nadu and recommend suitable changes.

In regard to sales tax, we have decided to make a number of adjustments in the light of representations received from consumers and trade and also with a view to plug loopholes resulting in evasion and avoidance of tax. Against this background, it is proposed to exempt from sales tax livestock, green grass, bun and porai, curd and butter, oil and products of oil produced by power ghannies set up by or with the assistance of Khadi and Village Industries Commission and by the State Khadi and Village Industries Board, medicinal mixtures and compounded powders where the components thereof have already suffered tax and handloom and millmade handkerchiefs. There have been repeated representations from the hosiery industry, which represents an important sector of small scale industry in Tamil Nadu, that they are not able to withstand competition from similar units in other States. It is, therefore, proposed to give them some relief by reducing the rate of local sales tax on cotton hosiery yarn from 3 per cent to 2 per cent and the rate of Central sales tax from the present 2.5 per cent to 2 per cent. In order to avoid taxation at different stages, it is proposed to levy 3 per cent single point tax on cotton sewing thread which is now subject to multi-point taxation. In order to check evasion, it is proposed that rough synthetic gem boules may be made liable to single point sales tax of 15 per cent. The exemption for polished synthetic gem boules will be continued. Similarly, it is proposed to bring under multi-point tax, jaggery and gur including jaggery powder and nattusakkarai. It is proposed to classify metal polishing bars along with polish and subject them to 8 per cent single point tax. We propose to reclassify scents and perfumes, powders, snows and scented hair oils into two categories



viz., those of common use and those which come under luxury items. A single point rate of 8 per cent will be adopted for the former and 12 per cent on the latter. I trust that the House will approve of my effort to find some funds even from fragrance. It is proposed to amend the concerned entry so as to avoid cumulative taxation on different forms of aluminium. Country chekku oil cakes and country chekku oil are proposed to be brought under multi-point tax so as to prevent evasion of tax by mill-owners. The existing exemption in respect of producers of genuine country chekku oil and oil goods will be continued. It is proposed to amend the relevant entry so as to ensure that any variety of paper which has suffered tax but which is converted into any other variety liable to tax under the same entry will not be taxed again. It is proposed to bring dyes and chemicals and essences and fruit squashes under the single point rate of 8 per cent instead of the present multi-point rate. All these changes will be brought about by issuing necessary notifications and the Members will have the opportunity to discuss them when the amendments incorporating the notifications are brought before the House.

We have also decided to make certain important procedural changes in regard to sales tax with a view to avoiding hardship to assessees, improve collections and at the same time reduce corruption. A summary assessment procedure will be introduced for small dealers whose turnover is less than rupees one lakh. Only the accounts of those dealers who had not returned their turnover commensurate with previously assessed turnover and trends or where inspections had revealed irregularities will be subjected to detailed check. This change besides reducing inconvenience to honest small dealers will enable assessing officers to concentrate on the more important cases. We have also



taken certain other decisions to make procedures easier at checkpoints and to provide for quick redressal of grievances in regard to orders of checkpoint officers. The penalty rate for defaulted payments is proposed to be increased and a provision introduced for the publication of names of defaulters of sales tax in newspapers subject to certain conditions as in the case of income-tax defaulters. We propose to tighten the conditions under which retired officers of the Commercial Taxes department are permitted to enter appearance on behalf of assessees.

We have also decided to set up an expert committee which will comprehensively examine the procedures in regard to assessment, collection and appeal in the matter of sales tax laws and regulations. The object of this committee will be to suggest changes which will subserve the triple objectives of reducing hardship to assessees, improving collections and eliminating corruption.

Representations have been before Government for some time that the entertainment tax in Tamil Nadu is particularly burdensome at the lower brackets of admission. In the face of this long standing grievance, we have now decided to provide a measure of relief in respect of entertainment tax at the lower rates of admission by reducing the additional surcharge from 15 paise to 5 paise where the net admission fee plus entertainment tax and surcharge does not exceed 25 paise and from 15 paise to 10 paise where it is between 26 paise and one rupee. This concession will be fully passed on to the consumer. The initial revenue loss may be expected to be made up to a substantial extent as a result of larger attendance at theatres that is likely to be stimulated through the tax reduction.

The growth in this important industry should be not only quantitative but also qualitative. Government have decided to introduce a scheme for promoting high-quality, low-budget Tamil films with a social content. Under this scheme, a subsidy of rupees one lakh will be provided to a specific number of films every year which fulfil the criteria to be formulated for the purpose.

The net effect of the changes in sales taxes and entertainment tax

will be a loss in revenue of Rs. 40 lakhs per annum.

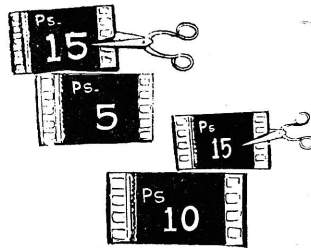
I had mentioned earlier that the overall deficit at the end of 1977-78

is estimated to be Rs. 18.89 crores. The effect of the various revisions in tax structure which we have now proposed and the increase in the interim relief to employees will increase the deficit by an additional amount of Rs. 5.70 crores. This deficit has to be covered largely through economies, better collection of existing levies and improved performance of statutory bodies and public sector corporations. Honourable Members will recall that in the Governor's address to the Joint Session, the policy of the Government to root out corruption at all levels was affirmed. Equally, it is our policy to identify and attack the problem of wasteful expenditure in all Government schemes whether they are developmental or non-developmental, in the Plan or outside the Plan. We will have to take every effort to ensure that every rupee of the tax-payer's money is made to go the longest way in providing direct benefits to the people. It is our hope that given the necessary fiscal discipline based on the drive against corruption and waste, we should be able to tide over the deficit in the current year to a substantial extent.

Sir, I am aware that Honourable Members belonging to all sections of the House have been looking forward to the maiden Budget of the new Government. It is less than a month since we have assumed office. In this short span of time, and although only 7 months are left for fresh appropriation, I trust that all well-intentioned Members will agree that we have made a serious and sincere beginning in tackling the various developmental and welfare problems of the State. I look forward to the Budget debate in the House and I would like to assure Honourable Members, irrespective of their party affiliation, that their valuable suggestions and views will be fully taken into account in making necessary provisions during the balance of the financial year and in formulating the Budget for the coming year.

I would like to express my sincere thanks to Thiru S. Guhan, Finance Secretary and his colleagues who helped me to prepare this Budget within a short time and thereby lightened my burden.

With these words, I seek the approval of the House to the Estimates placed before it for 1977-78.



Yoga is more popular today than ever before. So great is its current popularity, in both national and international fields, that it is in fact becoming something of a cult, especially with the health fads. A measure of its popularity can be judged from the fact that it has been above nationality and race. No geographic or any other barrier has been felt, nor is there any age or sex restrictions and taboos. It might well be called a world unifier. The reasons for the above are not too far to seek.

Yoga is a good deal more than physical exercises and gymnastics. Along with mental discipline, it aims to instruct the mind and the body. Its advance philosophical forms lead to a fine and harmonious relationship between the individual and the world around him.

YOGA : WHAT IT IS :

Defined as a form of mental and physical disciplines, yoga gives a code of ascetic practices. In practical terms, yoga means good health, both physical and mental and also the prevention and cure of diseases.

Yoga is said to be pre-aryan in origin. There is archaeological evidence indicating yoga disciplines in existence during the Indus Valley civilization, 5,000 years ago.

The term yoga derives from the root "Yuj" — "Yoke or join" in Sanskrit. This indicates the harmonious union of man with his surroundings, that is the universe.

There are several forms of yoga, depending on how mental energy or physical forms are sought. The chief forms of yoga are Hatha Yoga, thorough physical culture ; Raja Yoga through physical discipline ; Karma Yoga through work ; Bakthi Yoga through faith ; Mantra Yoga through occult ; and Laya Yoga through the activation of the subtle centres of the body.

HATHA YOGA :

A healthy mind functions in a healthy body. The health of the body depends to a great extent on the health of the nerves and certain glands which secrete hormones. It

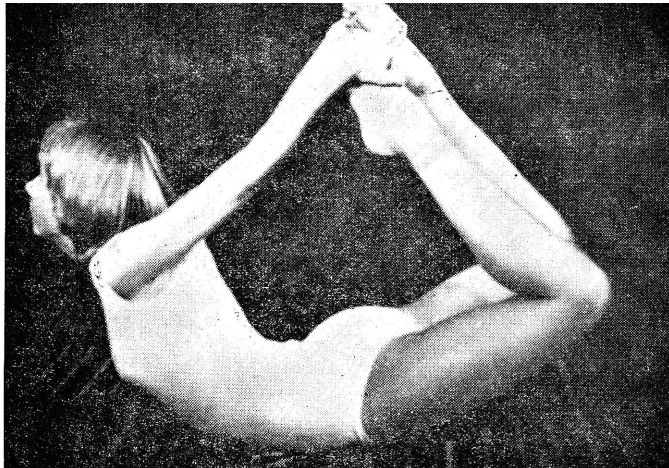
Yoga 5,000 Healthy Years



is important to strengthen the glands and the nerves. The glands manufacture hormones and therefore they should be kept in a healthy state.

The physical culture of keeping the body fit is known as the yoga

system. It is a practise of asanas *i.e.*, postures. The asanas are un-strenuous and revitalizing. In practising asanas one ignores the muscles but concentrates on the glands and the nerves. To strengthen the nerves one should strengthen the brain and the spinal column.



DHANURASANA

WHAT YOGA DOES TO YOU :

Sirasana : Head Stand :

Take a blanket, fold it and spread it on the floor. Kneel down, place your forearms on the floor. Interlace the fingers and place your head between the hands. Straighten your legs and keep them close to your body. Lift your feet and slowly raise your legs up till they point straight up—Hold your breath till you are steady in this posture. Stand in this posture for a few seconds to begin with and gradually increase the period. To return from the posture, first bend the knees and then lower the legs to the ground. In the initial stages, you can practise this against a wall.

BENEFITS :

An abundant supply of blood rushes to the brain. Brain power, memory are enhanced. Eyes, ears, nose etc., are strengthened.

Halasana : Plough Posture :

Lie flat on your back. Lift your legs up and lower them over head, till the toes touch the floor. Keep the knees straight. Hold your breath for a few seconds. Lower your legs back to position.

BENEFITS :

The back muscles and the spinal nerves are exercised and strengthened. It tones up the digestive organs when the blood circulates in this region.

Dhanur Asana : Bow Posture :

Lie face downwards, chin on the floor, arms at the sides of your body. Flex the legs at the knees. Raise the head and shoulders. Hold the ankles firmly.

BENEFITS :

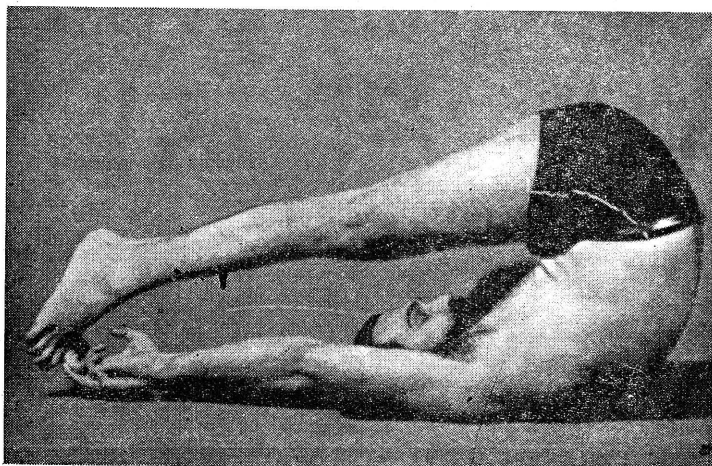
It stimulates the spinal nerves, pep-up the whole body. A host of pelvic disorders is prevented. It firms the thighs and slims the abdomen.

Paschimottasana :

Sit on the ground, stretch your legs straight. Raise your hands up, keep them close to the head. Slowly bend forward and try to touch your toes.



CHAKRASANA



HALASANA



YOGAMURDA

BENEFITS :

The liver, spleen, pancreas and intestines are all gently massaged. The abdomen will be reduced. It firms and slims the thighs.

Chakrasana : The Wheel :

Lie flat on your back. Flex the legs at the knees and place the heels close to the body. Bend the arms, place the palms over the shoulders, fingers pointing towards the body. Lift up the whole body until it forms an arch.

BENEFITS :

Stimulates the spine and spinal nerves. Helps to correct constipation and digestive troubles. It prevents excess weight.

Padahasthasana :

Stand straight with hands over the head. Slowly bend the head forward and down. Keep the knees stiff and try to touch the toes.

BENEFITS :

The blood rushes to the head. You derive the same benefits as in Sirasana.

Padmasana : (Lotus) :

Sit on the ground. Flex the legs at the knees, bring the right foot onto the left thigh and the left foot onto the right thigh. The hands may be placed at the sides of the knees or placed together in front, one palm on the other.

Yoga Mudra :

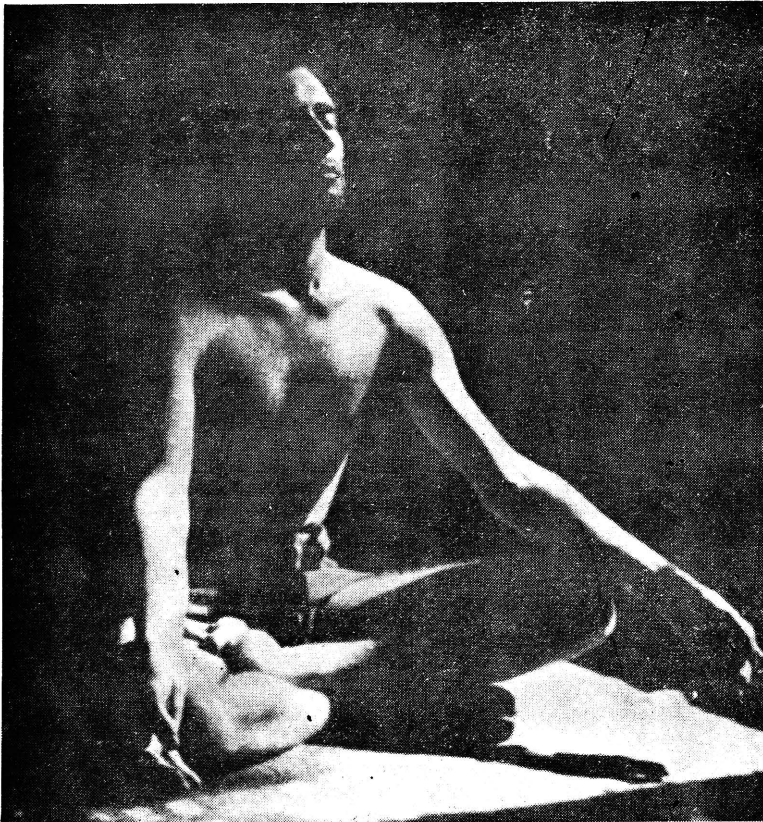
Sit in the Padmasana posture but with hands behind. Now bend forward till the forehead touches the ground. Exhale and inhale for a few minutes. Return to position.

BENEFITS :

The same as in Sirasana.

Savasana :

Lie flat on the back, legs a little apart and hands just a little away from the sides of the body. Close the eyes. Take a deep breath and start relaxing. This asana is practised after the other Asanas, when finally you relax both in body and mind. After relaxing for five minutes you can start attending to your routine work.



PADMASANA

Yoga for the Cure of Heart Diseases

Yoga experts claim that heart diseases can be cured but there is very little medical evidence to prove it.

A team of doctors headed by Dr. C. Lakshmikanthan, head of the Department of Cardiology, Institute of Cardiology, G.H. has begun a research study of the influence of yoga on the cardio-vascular system using modern electronic gadgets.

A group of volunteers consisting of yoga experts, heart patients and healthy persons not practising asanas were used for the study of yoga asanas on the heart. Heart-wave, blood pressure, ECG by telemetry, oxygen consumption and cardiac performance were recorded.

After observing the volunteers for a few weeks, the cardiologists have come to the conclusion that the practice of certain asanas have beneficial effects on the heart, while some others have harmful effects.

Certain asanas help to cure heart diseases like hyper-tension some help to rehabilitate patients after a mild attack.

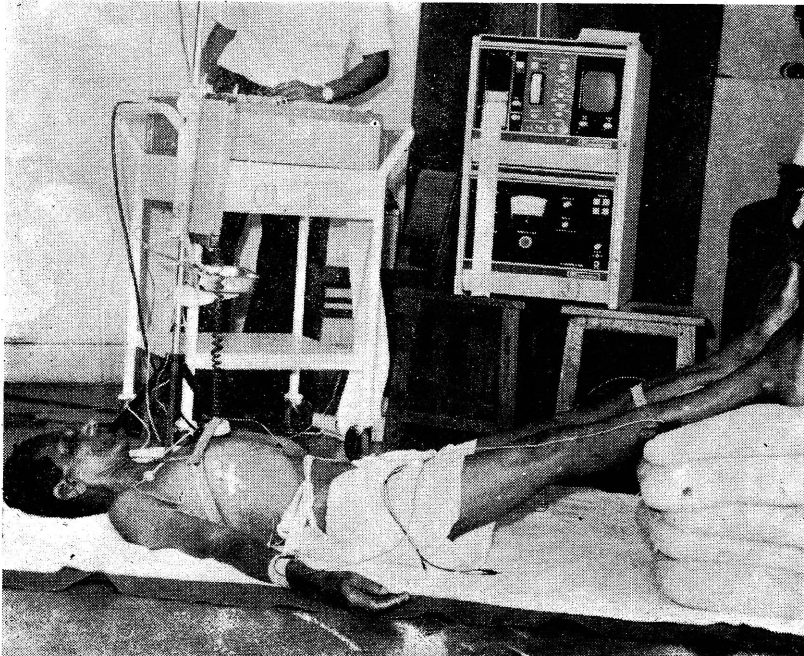
With the help of Thiru Ramabhadran, a yoga practitioner the medical team studied the effect of several asanas including Shava sana, Veepareethakarani and Padmasana. Thiru Ramabhadran has modified the asana Veepareetha karani and naming it Ramakarni. This asana was found to be simple

and easy for the heart-patients. The patient lies down with his feet raised by five or six pillows which eases blood flow. Dr. Lakshmikanthan said the studies conducted at the General Hospital Madras, were the first of their kind in India. The studies were elaborate with the help of modern electronic gadgets.

He said that the yoga experts claimed that asanas had a curative effect. This claim with reference to heart diseases were being studied now scientifically.

The asanas, however, should not be practised indiscriminately, but only under the guidance of the yoga expert and a medical specialist, he added.

Heart beat, blood pressure recorded by telemetry



The ultimate disposal of wastes emanating from our communities and industries, could be accomplished on land, water and air. Wastes of various categories exist in solid, liquid or gaseous phases and accordingly the areas of disposal, depend upon the waste characteristics and other factors. Citizens at all levels, notice the ruinous nature of solid and liquid wastes disposed off on land, but the harmful effects of waste disposal into natural water courses and the atmosphere, have not been seriously considered except in a few places. Under these circumstances, it is pertinent to bring out the problems associated with the disposal of wastes into natural water courses and the atmosphere, which form part of man's environment.

Atmospheric Pollution :

Air pollution is defined as "the presence in the air of

Holland and London have been attributed to toxic pollutants in the air. Any one who has visited Los Angeles, California, U.S.A. during winter would have experienced the effects of air pollution.

Several elements and compounds have been found to cause certain diseases in various manufacturing processes, but these materials may or may not reach sufficient concentrations in open atmosphere to create similar effects. Considerable damage may be caused to human health, by air polluted with toxic substances. Sulphur dioxide has recently been mentioned as a possible cause for cancer, in addition to respiratory diseases. Oxides of nitrogen, released along with the automobile exhaust gas cause bronchitis and have adverse effect on lungs. Carbon monoxide which is a well known poison, is also one of the constituents of automobile exhaust gas. A variety of hydro

Damage to vegetation in areas subjected to air pollution has also been reported widely. Such damage vary from superficial leaf injury to extensive economic losses due to destruction of fruiting or flowering bodies of entire plant. Timber trees have been damaged seriously by air borne gaseous pollutants in Pacific North West, U.S.A. Sulphur dioxide, hydrogen fluoride, ethylene, carbon monoxide, hydrogen sulphide, ammonia, and other gaseous pollutants have been implicated in damages to a variety of plants when limiting concentrations have been reached. Garden crops, citrus groves, and ornamental plants have all been injured by components of smog, and other toxic pollutants. Each species or type of plant appear to have a limiting concentration of each one of these contaminants, which must be reached before damage becomes noticeable.

AIR POLLUTION

substances put there by the acts of man in concentrations sufficient to interfere with the comfort, safety or health of man or with the full use of enjoyment of his property." The relatively thin envelope of air surrounding the globe is considered to have a great capacity for diluting and stabilising the gaseous wastes that are discharged from our industries and other sources. However, its capacity is not unlimited and the stage has been reached in several places where the quality of the atmospheric air has been impaired. Polluted air will create adverse conditions with respect to the health and longevity of human beings and cattle and may lead to destruction of vegetation and damage to properties. In a few instances polluted air has been definitely identified as the causative agent of death or disability of men and animals. For example, deaths in Donora, Pennsylvania, U.S.A., Meusevalley,

carbons which are carcinogenic, also result from the same source due to poor combustion. The toxic and injurious gases and pollutants, entering the atmosphere due to industrial emissions, activities associated with traffic, and refuse burning and their injurious effects have been shown in Table

Sufficient evidence has been reported where cattle have been poisoned by the ingestion of vegetation containing toxic concentration of substances directly traceable to air pollution. In Florida, U.S.A. fodder grass had accumulated fluorides from emissions by industries processing phosphate rock and aluminium. Cattle consuming the fodder containing toxic fluorides were directly affected by fluorosis, resulting in several fatalities.

Corrosive gaseous pollutants, such as sulphur dioxide, nitrogen dioxide and others, may cause structural damage to buildings and other structures, destroy painted surfaces, clothes and linen. All these will lead to considerable economic loss to community.

Ambient air quality standards and work room threshold limit values (TLV), apply to men and women in good health and capable of physical exertion. In the case of infants, invalids, aged and sick persons whose body resistance will be low, the TL values will be much less. It is this section of the population which become first victims of polluted air. In an atmosphere with more than one toxic pollutant, considerable damage maybe caused even at low concentrations on the weaker sections of the population. On days when climatic conditions lead to low air movement and very little dispersion, the damage that could

B. B. SUNDARESAN.

be caused may reach disastrous limits. The examples cited earlier have shown that such an occurrence could be expected at any time in industrial areas, subjected to large emissions from automobile exhausts.

Madras City and Neighbourhood :

In India systematic study of air quality has been made only sporadically. Singh and Prabhakararao (1) studied air pollution in Kanpur City. Zutshi *et.al.* (5) air pollution at Trombay. Yennawar, *et.al.* (4) carried out short term air pollution surveys in Delhi, Bombay and Calcutta. A scientific assessment of air quality in Madras was considered necessary prior to embarking on suitable control measures.

A short term survey of air pollution in Madras City was carried out during 1971 with a view to have a quick check on the level of various pollutants in the city and to obtain data as a first step towards formulating a general plan of air quality studies on long term basis for the city. This was required to draw the attention of the public and the concerned authorities towards the deterioration in air quality and thus generate interest in control measures.

Madras is the fourth largest city in India with a population of 2.47 million and an area of 139 sq. km. There are two thermal Power Stations at Basin Bridge and Ennore, an oil refinery, a few fertiliser factories and chemical industries, in addition to a number of small and medium engineering industries. Apart from these factories, 50,000 automobiles plying on the city roads and some of these belch out smoke and pollutants due to defective engine performance and at times adulterated fuel.

Meteorological Data :

The minimum air temperature for Madras City varied from 17°C in April during the period March 1970 to March 1971. The maximum air temperature varied from 28°C in December to 43.5°C in May.

The maximum humidity varied from 96 to 98 per cent from July 1970 to January 1971 and the minimum humidity varied from 39 to 60 per cent during the year.

The wind speed for the period of study varied from 8 to 10 km/hr. during the day. During night hours the wind speeds were less. Being a coastal city, sea breeze plays an effective role in bringing fresh air from the sea. However there is a limit to which this natural process can sweep away the pollutants. Short duration inversions sometimes do occur during early mornings and late evenings at the time when the wind speeds are low. However, these inversions are invariably of a short duration and never last more than a few hours even during winter.

Sampling Stations :

For the short term air pollution survey six representative stations were selected in the city.

The sampling stations were located at heights varying from 15 to 40 feet depending upon the suitability. One to three storeyed buildings with flat open terrace were chosen for installing the equipment. Proximity to large and tall buildings liable to obstruct the air movements were avoided. Safety of the equipment involved was also considered in the choice of the site.

Sampling stations were selected considering the various factors necessary to make it truly representative. For this the city was divided into different zones depending upon the predominant nature of activities in the zone such as industrial, residential and commercial.

The six sampling stations and their special features are :

- (i) Guindy Industrial Estate. This is in the southernmost part of the city. There are a number of small chemical and engineering industries in the estate.

- (ii) Automobile Association Building, Mount Road : At this location the intensity of vehicular traffic is high.

- (iii) General Hospital : It is in the heart of the city, representing both vehicular traffic and rail road transportation being near the Madras Central Railway Station.

- (iv) Basin Bridge : It is in Central Madras. A Thermal Power Station and Loco-Shed are located in this area.

- (v) Ennore : It is north of Madras. Numerous industries like fertilisers, rubber factory and a number of other industries are located in this area.

- (vi) Kodungaiyur : This is just at the north-west end of the city. It is on the windward side from Manali Oil Refinery. The city sewage treatment plant is in this area.

Frequency and Mode of Sampling :

Gaseous pollutants were collected in this study on six-hourly sampling basis at a rate of 500 ml/min. in order to obtain an indication of the diurnal variations in pollution levels — morning (6 hours), Mid-day (6 hours), evening (6 hours) and night (6 hours).

Suspended particulates in the air were collected over 24 hours period by the use of a high volume sampler at an average rate of 35 cu. ft./min. (991 lit./min./).

Settleable particles (dust) in the air such as soot, fly ash and smoke were measured by dust-fall jar over a period of one month.

The amount of sulphur containing gases including sulphur dioxide in the atmosphere was measured by sulphation rate using lead peroxide candles over a period of one month. This survey was conducted for two months, March and April, 1971.

Pollution Parameters :

The parameters selected for the pollution survey were :

- (i) Sulphur dioxide
- (ii) Nitrogen dioxide
- (iii) Hydrogen sulphide
- (iv) Ozone
- (v) Sulphation rate.
- (vi) Suspended particulate matter
- (vii) Settleable dust fall rate.

Date and Discussions :

Air samples were collected from each one of the six stations once a month for four months. Samples were collected for 24 hours in each station in 6 hour batches for gaseous contaminants.

Dust Fall Measurement :

Dust fall measurement was done only at three sampling points for one month periods during March and April. These samples were further analysed for total insoluble matter, volatile matter, and inorganic matter.

Sulphation Rate :

Sulphation rate was measured over a period of one month at three sampling points during March and April using lead candles.

These values serve as an index to evaluate the quantity of sulphur dioxide and other sulphur compounds present in the atmosphere.

Suspended Particulates :

Particulates in air were collected over 24 hour period using high volume sampler, at an average rate of 35 cu. ft/min (991 lit/min). Benzene soluble portion of the particulate matter was also analysed.

Gaseous Pollutants :

Sulphur dioxide, nitrogen dioxide, hydrogen sulphide and oxidants in air were collected over a period of 24 hours once in a month, at six sampling points in the city for four months. In each 24 hour sampling, samples were collected in 4 six hour periods representing morning, noon, evening and night. The volume of air drawn through the

absorbing media was regulated at 500 ml/min.

Sulphur dioxide :

The sulphur dioxide concentration in the atmosphere was found to vary from 13.15 to 77.2 g/m³ (average values). In March a maximum value of 244.4 g/m³ was recorded at General Hospital in the morning period of the day. The pollution due to SO₂ is significant at Basin Bridge in all the four months of the study.

Nitrogen oxides :

The nitrogen oxides concentration was found to vary from 11.52 to 37.05 g/m³ (average values). A maximum value of 86.10 g/m³ was recorded at Basin Bridge in the month of April. The NO₂ concentration was observed to be highest in the month of April except in two of the sampling stations.

Hydrogen sulphide :

The concentration of this pollutant in the atmosphere was found to vary from 0.87 to 7.32 g/m³ (average values). A maximum value of 23.89 g/m³ was recorded at AASI Building, in the month of March. During April the concentration was found to be high in the three stations Basin Bridge, Kodungaiyur and Ennore.

Oxidant Ozone :

The concentration of ozone in the city atmosphere was found to vary from 1.69 to 15.29 g/m³ (average values). A maximum value of 55.00 g/m³ of this pollutant was recorded in the month of March at Ennore. No standards for air quality have yet been adopted in India.

As a whole, Basin Bridge area appears to be the most polluted part of the city. Suspended particulate matter and dust fall concentrations in the city show 3 to 4 times higher values when compared to other cities of the world. This may have to be borne in mind while planning the future studies as well as air quality standards. The overall assessment of the results show that there appears to be very strong need to assess the

exact status of air pollution in the city by a full-scale investigation to obtain more detailed information on long term basis. The collection of such data will be useful to keep the environment clean by proper zoning of industries and hasten the enactment of control legislation.

Summary and Conclusions :

Short term air pollution survey of Madras City during January to April, 1971 gave very useful data regarding the general air quality in the city. This survey was carried out selecting six representative sampling points in the city. Though the stations were selected with care it is possible that pockets of high pollution exist in the city. Pollution levels recorded in these studies are summer values and therefore likely to be lower than the corresponding winter values.

Particulates in the atmosphere were found to vary from 86.92 to 469.40 g/m³. Maximum value of 733.60 g/m³ was recorded at Basin Bridge in the month of April. Minimum value of 32.03 g/m³ was recorded at Kodungaiyur in the month of April. The average suspended particulate matter during January to April at Basin Bridge was 469.40 g/m³ which is more than the concentration of particulate matter reported in cities abroad such as London, Chicago, Los Angeles and Tokyo.

Dust fall in the atmosphere varied from 36.06 to 392.7 tones/sq. mile value of 392.7 tons/sq. miles/month (154.10 tonne/sq. km. month) was recorded at Basin Bridge in the month of April. The minimum concentration of 36.06 tons/sq. mile/month (14.15 tonne/sq. km/month) occurred at General Hospital in the same month.

The sulphation rate recorded during March and April was found to vary from 0.2315 to 1.33 mg SO₃/100 sq. cm./day. The maximum value of 1.33 mg/SO₃/100 sq. cm./day was recorded at Basin Bridge in the month of April. In both the months the maximum values occurred at Basin Bridge and the minimum at General Hospital.

Tapping and Training Talent in the Film Industry

The Film Industry of India is a very vast one. Something like Rupees thousand-five-hundred-million is the capital investment in this industry ; about one lakh and fifty thousand persons are directly or indirectly employed in it. The annual gross collections by way of sale of tickets is about Rs. Sixteen-hundred-million. There are about 70 studios in the country producing feature films. India is the highest feature film producing country in the world. Films made in India are shown in 110 countries.

These impressive figures make one rank the Film Industry as a major industry ; but there is a vital difference between the Film Industry and any other Industry. The difference is, that, in spite of the advanced science and technology involved in it and the most sophisticated and elaborate machineries used in the making of films, the 'human element' plays a vital role in its making,—right through all stages of production and, it is the quantum of talent possessed and displayed by the 'human element' that finally shapes the output commodity of this industry. In every other industry, there is a standardisation of the output product and the quality of the output product is constant, as the design engineers, who draft the initial blue print. The talent involved is only to the extent of this standardisation ; and once this standardisation is achieved by the initial

designers, it is only a matter of maintaining this standard. Fortunately or unfortunately, it is this lack of standardisation of the output product, that two products which come out of the Film Industry are not and cannot be alike, that makes the Film Industry an industry with a difference. There is original design involved in every stage of film production and in each of the productions. The significance of this 'human element' is because film is a synthesis of Arts and every Art can thrive only on human resources.

Thus, in the process of film making, talent becomes the real raw material that has to be fed into

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the machinery of its making. Locating this talent may be a difficult task for the film industry, since it does not exist like a mine of iron ore for a steel factory to readily draw upon. Talent is scanty and scattered and, in many cases latent like the pearl in the oyster, which the searchers have to locate with patience and even when once located and picked up, one has to do a bit of cleaning and processing to make it lustrous. Even to spot real talent, talent is required on the part of

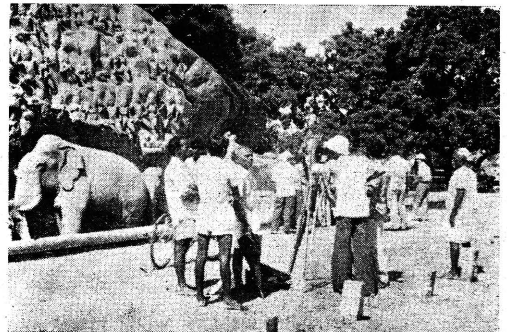
the searcher ; And that is perhaps why new faces are brought to the screen by few personalities alone in the Film Industry.

The talent of every person connected with film making, makes an impact on the final film ; but the most significant among them are, the Artistes and the Directors. It is the Directors who endeavour to locate talent for the roles to be played. Thiru K. Subrahmanyam, a pioneer in the Tamil Film Industry, had the gift to locate original talent and many artistes who later on became famous Stars were discovered by him and brought to the industry. Other Stalwarts of the film industry like Thiru A. V. Meyyappan, Thiru S. S. Vasana, Thiru H. M. Reddy have also contributed a lot in recognising original talent and introducing them to the screen. Talented new faces have been and are also being introduced by other contemporary Tamil Film Directors which gives a new dimension to the Tamil films.

The venue for identifying talents for the Film Industry has been mostly the dramatic stage. The majority of the top stars in our Industry had their entry into the films from the drama. This has been the case because, the drama stage provided these persons the opportunity to display their hidden talents, which otherwise would have remained unidentified, like the blossoms in the desert soil.

Students in the Studios shooting a film sequence

Students at out door Film Shooting programme



While such drama artistes have very well adjusted themselves to the film screen, and have excelled in their jobs, endeavour has to be made to locate talents among people who do not have the opportunity to enter the drama stage and at the same time, if recognised and trained, would turn out to be excellent artistes. A good percentage of those who are listening to me now, might be potential film artistes, film directors, cameramen, film editors and so on and it might need only, on the part of somebody to recognise your talent and to shape you out — and for that, the film institutes are endeavouring.

The Poona Film & Television Institute and the Institute of Film Technology at Madras are two major institutions which look out for talents and which are engaged in training talented youths in the various aspects of film making. The problem of the film institutes is two fold ; the first and perhaps the more difficult, being to get at the really talented, and the other, in developing this talent by a process of training, in a climate of filmic expression.

The Institute of Film Technology at Madras used to receive a large number of applications every year for admissions, the proportion being always larger in the case of the Acting Course. The Selection Committee, comprising of eminent filmic personalities and technical members find a difficult time in



Students Practising dance

assessing the quantum of talent that lie dormant in the fabric of the hundreds of candidates whom they examine ; the real talent being sometimes shrouded by an emotional surge and eagerness to get into the charm of the film world.

In the case of the Film Acting Course, after a series of preliminary tests, the candidates who seem to possess the right type of aptitude are subjected to a screen test ; which

is actual filming of the candidate with make-up, doing a small talkie role. His or her personality, photogenic appearance, audition, gait, manner of walking, capacity for scenic rendition, etc., are all judged from this piece of film that is processed and viewed by the Selection Committee. If any one amongst you—girls or boys—feel confident of standing the above tests, you are welcome to approach this Institute.

Once the Selection Committee endorses your talent and you are able to join the Institute, you will be placed in an environment in which your talents will bloom into perfection.

The Institute is not merely a teaching institution, where you get only theoretical instructions and laboratory exercises ; but it is a temple of training where you are placed in an atmosphere of filmic arts and techniques, where your own aptitude and individuality will find scope of cinematic expression.

Thus, while in olden days the pioneers of the Film Industry had to take the trouble of locating talent and bringing them up in their own way, the Film Institutions are now functioning to carry out these jobs in a more organised and scientific manner. The mission of the Film Institutions will be successful if the talented ones amongst you come forward for the training.

Courtesy : A.I.R.



Students of the Acting section at work

The term "Census" instantly brings to our mind population Census conducted regularly on a decimal basis right from 1781. Population Census envisages collection of data on the size and structure of the country's population. It enables in-depth analytical studies of the available manpower, resources and their demographic characteristics. Similarly, we have also had livestock censuses periodically on a quinquennial basis. Livestock Census aims at collection of information on the livestock wealth of the nation. Data collected through the Livestock Census have formed the basis for the formulation of ever so many dairy development programmes. In the field of agriculture also, a census is conducted on a quinquennial basis, the object of the Census being to collect data on the essential characteristics of agricultural holdings such as number and size of operational holdings, land utilisation pattern, types of tenancy etc.

In our country there is lack of adequate data on the unorganised sectors of Industry, Trade, Transport, Construction and Services. This gap has seriously handicapped the planning process particularly at the state and lower levels of estimation of State and National Income and also the identification of relatively backward districts. Therefore for the first time we are embarking on an Economic Census of unorganised non-agricultural sectors with the same significance as the population or agricultural Census. Any non-agricultural enterprising establishment with an identifiable premises employing one or more paid employees on a fairly regular basis will be covered by this Census.

Dependable statistics constitute an important infrastructure for sound planning. Efforts have been made during the past three decades by statisticians at all levels to build the edifice of the Indian Statistical system in general and statistics relating to agriculture in particular on a sound basis. The system still admits of improvement. The non-agricultural sectors of the country like manufacturing, trade, transport, construction, services etc., have not, however, been given the due attention they deserve. The availability of statistics on these sectors is far from satisfactory. It is true that, on some organised segments,

data are being collected regularly through normal administrative channels. But there is an almost total lack of information on the unorganised segments. For instance, under the Annual Survey of Industries, information on the manufacturing establishments registered under the Factories Act, 1948, is collected regularly. But there is no such regular collection of reliable statistics for non-factory units such as manufacturing establishments using power and employing less than 10 persons or those not using power and employing less than 20 persons. Similarly, while data on railways and air-transport can be had from their respective administration departments, practically no data are available on road and water transport in the country. There are similar chunks of dark areas in the sectors of trade, service, construction etc., paucity of information on these unorganised segments, which constitute one of the most vital links of the chain of the Indian economy had naturally led to the neglect of their planned development. Their importance could hardly be over emphasized. They are estimated to account roughly for about one-fourth of the National Income and about one-fifth of the country's labour force. It is evident that they have an important role to play in the country's economic development.

The Department of Statistics in Tamil Nadu has, therefore, launched a State-wide Economic Census as a Central Sector Scheme sponsored by the Central Statistical Organisation. Attempts hitherto made to organise surveys of industries etc. in the unorganised sector have only been sporadic and partial. The economic census now proposed is, however, an integrated one and is expected to bridge the gap in the existing statistical system. The objective is to ascertain the structure, activity and performance of the unorganised segments of the non-agricultural sectors of the economy. The Census is intended to collect information on the distribution of establishments by location and activity and also estimate the value of inputs and outputs, investment, etc., for the unorganised segment of each major sector of the non-agricultural economy.

The work will be carried out according to a phased programme by (1) a census of all non-agricultural

ECONOMIC CENSUS AND SURVEYS IN TAMIL NADU

SELVI
R. PADMAVALLI, M A.,

DIRECTOR OF
STATISTICS

Economic census in non-agricultural sectors to bridge the gap

establishments in the urban and rural areas followed by (2) sample surveys of select segments. During the census basic information will be collected on location, management, type of activity, number of persons employed and the nature of goods and services produced. The sample surveys that will follow the main census will go deeper and seek from the selected establishments of the unorganised segments of the non-agricultural sectors, detailed information particularly on the value of inputs and outputs. A fairly large sample of establishments from each sector to provide estimates of reasonable accuracy at the State and District levels will be canvassed.

The detailed sample surveys

The census will be conducted throughout Tamil Nadu both in the urban and rural area during the last quarter of 1977. The pilot census conducted in the five taluks of Chengalpattu, Kancheepuram, Tiruvallur, Sreeperumpudur and Thiruthani had revealed that there are about 13,700 units engaged in non-agricultural economic activities in these five taluks alone, with one or more hired labourer, excluding 68,698 units of own account enterprises. The aim of the pilot census was to assess the volume of work and gain the necessary operational and organisational experience in Census operations.

The overall responsibility for organising and guiding the census

field enumeration work. As the Census involves massive operation extending over the entire rural and urban areas of Tamil Nadu, thousands of enumerators would be drafted for the purpose. Technical guidance, training and supervision would be provided by the Department of Statistics.

The sample surveys to be undertaken subsequent to the Main Census will, however, be entrusted to the trained statistical personnel of the Department of Statistics.

The success of this big venture, new and pioneering as it is, depends on the data which the informants come forward to give. Accurate information would ultimately help

The Success of this Big Venture Depends On The DATA

proposed will be carried out in three phases, covering in each phase one or more sectors from the non-agricultural unorganised segments.

An establishment, for the purpose of the Economic Census, is defined as a unit or household which undertakes non-agricultural economic activity and employs at least one person hired on a fairly regular basis. It is estimated, on the basis of the 1971 census figures, that Tamil Nadu alone accounts for, on an average, a little over 90,000

such establishments engaged in non-agricultural economic activities.

operations in Tamil Nadu vests with the Department of Statistics. The Collectors in the districts will be nominated as the District Economic Census Officers. There will be a District Level Committee in each district with the Collector as the Chairman and the Statistical Officer as the Convenor. At State level, the Secretary to Government (Forest and Fisheries) will be the Chairman and the Director of Statistics will be the Convenor.

The services of school teachers and Village Level Workers will be availed of on a part-time basis for the establishments participating in the Census by drawing the attention of the authorities concerned to the areas of concentration of important activities and to their problems for improving the organisation. It is essential, therefore, that every respondent extends his/her whole hearted co-operation in making available the required information to the best of his/her ability in the interest of the Nation as a whole.

Into that heaven of Freedom...

*Where the mind is without fear and the
head is held high;*

Where knowledge is free;

*Where the world has not been broken up into
fragments by narrow domestic walls;*

*Where words come out from the
depth of truth;*

*Where tireless striving stretches
its arms towards perfection;*

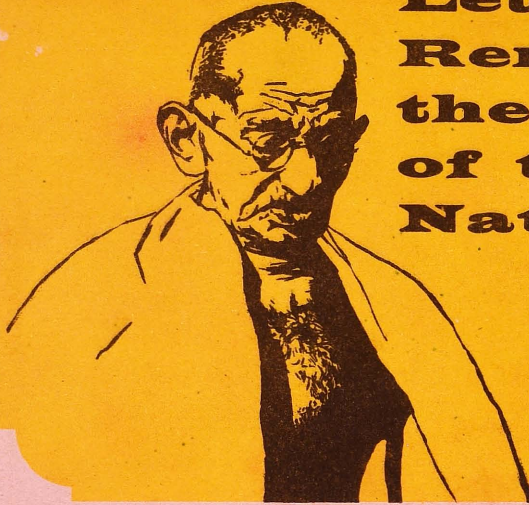
*Where the clear stream of reason has not lost its way
into the dreary desert sand of dead habit;*

*Where the mind is led forward by Thee into
ever-widening thought and action—*

*Into that heaven of freedom, my Father,
let my country awake.*

*—Gurudev Rabindranath Tagore
in "Gitanjali"*





**Let us
Remember
the Father
of the
Nation**

“Drink is a Social evil. It reduces man to the level of a beast. It is our duty to take steps to erradicate this evil.”

—MAHATMA GANDHI



**Let us destroy the drink evil to
bring light into life.**