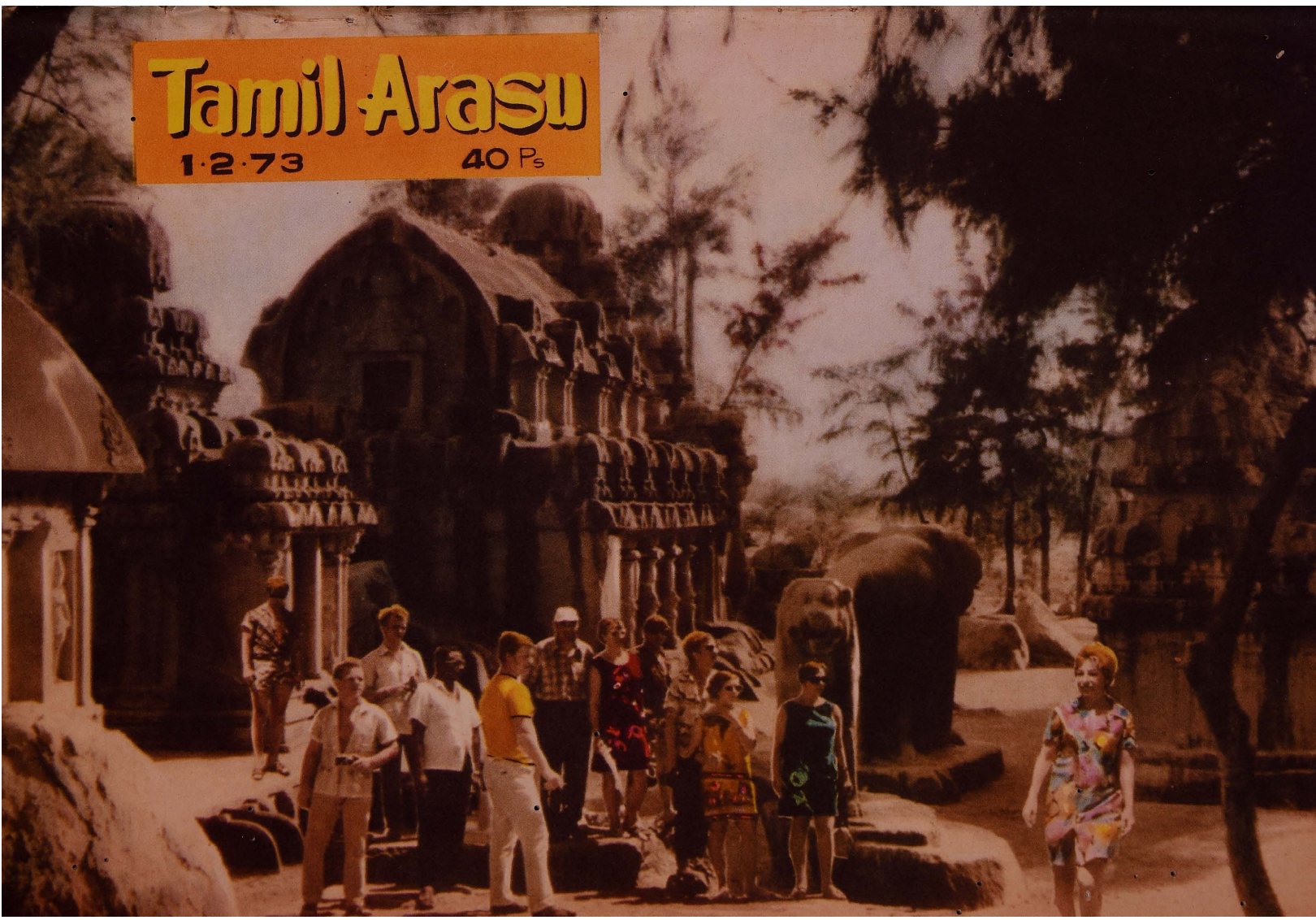


# Tamil Arasu

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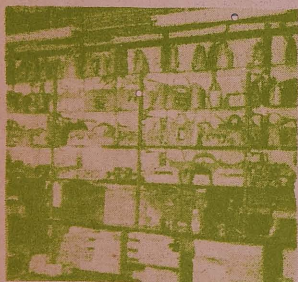
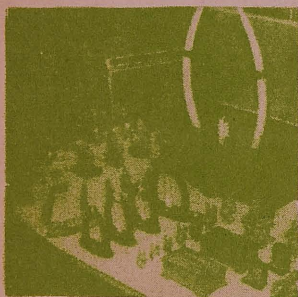
# KURALAGAM

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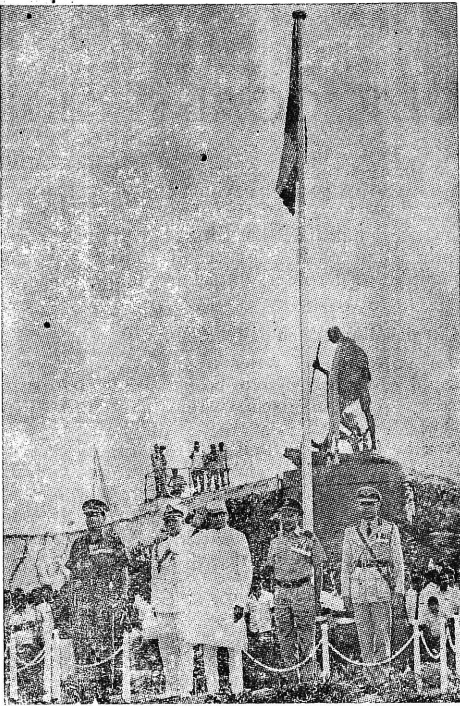
# Tamil Arasu

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(Issued late on 5-2-73)

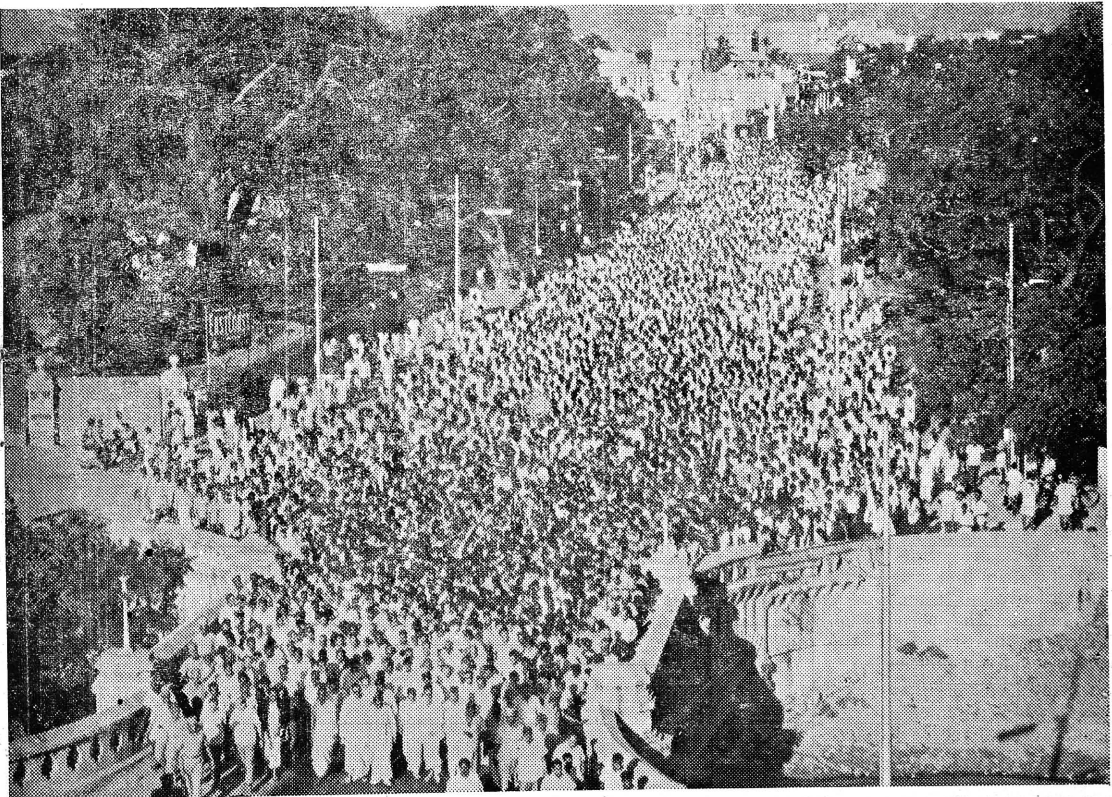
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Flag unfurled for Republic Day.





# LET REMOVAL OF POVERTY BE OUR GOAL

At a Joint Session of the Tamil Nadu Legislature held in the Chambers of the Legislative Assembly on 2nd February 1973, Governor Thiru K. K. Shah said

I consider it my duty to refer, at the outset, to the grievous loss suffered by the State in particular and India as a whole, in the demise of Thiru C. Rajagopalachari, affectionately known as Rajaji.

During the year gone by, the State had more than its share of natural calamities. An unseasonal South-West monsoon threatened us with drought. The delayed rainfall in many areas led to loss of a major part of the groundnut crop and resulted in many districts facing a shortage of drinking-water. Promptly Government sanctioned relief measures at a cost of Rs. 1.25 crores. Fortunately, with the onset of the North-East monsoon, the effects of drought were got over and the situation ameliorated. No sooner had we recovered from this, than there was a severe cyclonic storm, causing extensive damage to roads, houses, buildings, irrigation dams and fields, in the districts of South Arcot, Coimbatore, Tiruchirappalli, Thanjavur, the Nilgiris, Chingleput, North Arcot, Dharmapuri, Salem and Madras. Nearly 1,80,000 families lost their houses and the paddy crop was damaged totally in 28,000 acres and partly in 1,70,000 acres. Our estimate of losses, as a result of this cyclonic outburst, runs to Rs. 40 crores. We have made a detailed assessment of the damage and requested Government of India to assist us with loans and grants to the extent of about 25 crores of rupees to repair roads, irrigation works, to help our farmers to reclaim their sand-cast lands and to rebuild their houses. The Government of Tamil Nadu, in anticipation of assistance from the Government of India sanctioned immediately Rs. 5 crores for relief works. The entire administration was geared to help those affected by the floods and should be congratulated for their dedicated work. **I am confident that generous assistance will be coming forth from the Central Government whose team of officials has already inspected the damages and submitted its report.**

The Tamil Nadu Civil Supplies Corporation has made arrangements for procuring pulses from major producing States and has also established a number of retail shops in Madras City and other urban centres of the State. This net-work for direct retail distribution of essential commodities will be extended. At present, the shops are distributing sugar, dhalls, wheat and wheat products, apart from rice in Madras and Coimbatore. The Consumer Co-operative movement is also being revitalised and the managements of the Super markets are being reorganised. This type of controlled distribution is intended to safeguard against the malpractices of trade and curb the tendency to push up prices. **The phenomenon of price-rise can be controlled by the State only with the help of Central monetary and fiscal policies.**

Fertilisers have been very much in short supply. Whereas our requirement is 2.74 lakhs tonnes of nitrogen, we have received only 1.30 lakhs tonnes of

nitrogen, from the Government of India during 1972-73 as against a supply of 2.14 lakhs tonnes of nitrogen during 1971-72. We have requested the Government of India to take immediate measures to increase indigenous production of fertilisers and to import additional quantities of fertilisers on a fairly long-term basis.

## Regional water and power Plan.

Planning for utilisation of water resources as well as other natural resources has to be on a regional basis and cannot be confined within a State's boundaries. The States of Mysore, Tamil Nadu, Kerala and Andhra Pradesh have to plan for utilisation of the water resources of the region on an integrated basis. I would suggest for the consideration of all these four States, the formation of a Western Ghat Development Corporation to exploit the untapped water and power resources in this region.

During the last year both the Industrial and Agricultural sectors in the State were affected on account of shortage of power. A sharp fall in power generation at Neyveli, due to a variety of reasons, multiplied our difficulties. The cumulative impact of all these difficulties has compelled us to impose a power cut, the adverse effect of which on the economy, as a whole, is yet to be fully assessed. One thing, however, is clear. Bhabha's famous dictum "No power is as costly as no power" has been brought home to us. The shortage of power is a world-wide phenomenon. But we have to plan ahead benefiting from the lessons of recent history. As a short-term measure, steps should be taken immediately to improve the production of power at Neyveli. I am happy to report that the management at Neyveli has taken steps to improve the production of lignite and the generation of power. In addition, the conversion to fuel oil of some of the thermal units at Neyveli, which are lying idle at present for want of sufficient lignite, will improve the position. Clearance has been given by the Government of India for this conversion, which is estimated to take eighteen months.

As a long-term measure, we have pressed for a second mine-cut at Neyveli with a view to setting up another thermal complex of 1,000 M.W. capacity. The second mine-cut will take nearly eight years to be completed and the sooner a decision is taken, the better for the future of the State and the country. I would, therefore, request the Government of India to give early clearance for this project. Equally important are the expansion of the capacity of the Kalpakkam Atomic Power Plant and the establishment of two new thermal stations at Mettur and Tuticorin respectively. We are looking forward to early clearance of these proposals.

## The Industrial scene.

Turning to the industrial sector, the year gone by has been one of consolidation. In spite of this, many of them have made progress. One important development during the year was the incorporation of Salem Steel Plant Limited as a separate company



to undertake the construction of the Steel Plant at Salem. The Managing Director has also been appointed.

The problems of unemployment and under employment and related poverty continue to cause concern. This is an All-India problem. Whatever is possible is being done by the State. We have initiated programmes costing nearly Rs. 10 crores, including the crash scheme for rural employment at a cost of Rs. 3 crores, the rural roads programme at a cost of Rs. 3 crores, the youth service corps scheme at a cost of Rs. 61 lakhs and the drought prone areas programme at a cost of Rs. 1.31 crores. Mention may also be made of the special apprenticeship programme for engineers and loan assistance scheme for craftsmen. These programmes are in addition to the substantial labour intensive schemes included in our normal plan and non-plan investment.

For the year 1972-73, the annual plan was fixed at about Rs. 115 crores. The schemes are being implemented and it is expected that the plan for 1972-73 will be fulfilled. During the discussion held between Chief Minister and the Planning Commission, the Plan for 1973-74 has been fixed at Rs. 120 crores. The total five-year outlay will now come to Rs. 534 crores as against Rs. 519 crores earlier approved by the Central Planning Commission.

#### **Our Plea to Finance Commission**

In this context, considerable importance should be attached to the visit of the Sixth Finance Commission to the State in January 1973. We have pleaded for restoring the primacy of the Finance Commission as a channel for routing resources to States. Our view is that all the needs of the States, both plan and non-plan including the minimum need programmes approved by the National Development Council, should be gone into by the Finance Commission, in consultation with the Planning Commission. The Finance Commission should recommend grants-in-aid and devolution of taxes taking into account the overall picture. So far as the plan grants are concerned, the Finance Commission should recommend the principles on which grants-in-aid should be given. The Planning Commission should work on the basis of these principles from year to year.

We have urged that the criteria for central assistance for Plan Schemes should be reconsidered in the light of the adoption of a national minimum needs programme. The National Development Council has accepted a minimum needs programme to bring up all areas of the country to specified norms. This means that the plans of various States will include adequate provision for this programme. Once this is done, and the needs of backward tracts of various States have been taken care of through such a programme, there is no justification to adopt other criteria of backwardness such as per capita income either for extending central assistance or for devolving central taxes.

We have requested the Finance Commission to consider the need to give adequate debt relief to all States. Considerable outlays obtained as loan from the Centre have to be utilised for provision of infrastructural facilities and no tangible revenue can be expected from expenditure. Such loan assistance should be treated as grants so that the debt burden on the States can be reduced.

Another important point we have raised concerns the need to remove disparity of emoluments between the Central Government employees and the employees of the State Government. The resources of the State are relatively inelastic. We have, therefore, pleaded with the Finance Commission to give a pay equalisation grant to all States to ensure parity between the State and Central emoluments. I do hope that these aspects will be duly taken into account by the Finance Commission. This becomes particularly urgent in view of the forthcoming report of the Central Pay Commission.

#### **Removal of Poverty and Unemployment**

We are committed to the goals of removal of poverty and unemployment, and elimination of social and economic backwardness. We have set up a State Planning Commission to draw up a perspective plan for the State for the ten years covering the Fifth and Sixth Plans. A draft Plan frame drawn up by the State Planning Commission has been placed before the Legislature and the public. Active work is going on in regard to the finalisation of the Fifth Five-Year Plan and the perspective plan covering the Fifth and Sixth Plan periods. In this context, I would like to refer to the emphasis laid by the Chief Minister in his speech before the National Development Council on the assurance of adequate supplies of raw material and power as necessary inputs for implementation of the Plan. Equally important is the suggestion made by him to set up a National Taxation Enquiry Commission to look into the incidence of taxes and provide for incentives to save and invest. I attach particular importance to the idea that people should not look up to Government all the time for jobs. There should be middle class entrepreneurs ready to save and invest. It is with a view to restoring the incentives to them to save and invest that Chief Minister has made the suggestion that the income-tax structure be reorganised. This will also enable Government to reduce the evils of unaccounted money.

Before I conclude, I would like to refer to the vital question of prices and wages. Price policy has to be settled on the basis of national decision in regard to monetary and fiscal matters. A comprehensive wage-price income policy should be evolved and implemented. In evolving this policy, care has to be taken to ensure that the problems of those who have no jobs are continually kept in mind. The large masses of our people below the poverty line should be kept always in the picture.

One of the important bills that are to be considered in this session relates to nationalisation of bus transport. As you are aware, Government of Tamil Nadu have taken a decision to nationalise all bus transport in the State on the basis of a phased programme. This represents yet another step forward in the progress of the State towards socialism.

We have yet to travel a long way. In these troubled days, if we can be the torchbearers of determined dedication to strengthening of forces of understanding, co-operation and sustained hard work in the service of teeming masses, posterity will bless us. May your efforts and wise counsels be the harbinger of an era of peace and prosperity.



# LET US DEDICATE OURSELVES TO

The following is the text of broadcast of the Governor, Mr. K. K. Shah on the Republic Day.

"On this auspicious and historic national day, I convey to you all my warmest greetings.

Last year we celebrated the day with a sense of pride and purpose and expressed our unbounded joy to witness the birth of Bangla Desh, which had faced horrible trials and tribulations with determination, courage and unity of purpose. To-day we heave a sigh of relief that those who tried to throttle democracy and the voice of reason stand exposed before the conscience of humanity. Under the dynamic leadership of Shrimati Indira Gandhi, we stand for certain basic ideals. We love all, hate none and extend our hand of friendship to all without any mental reservations, although some of them still persist in their nefarious game of balance of power and animosity to India. Even though destiny has been cruel enough to silence the voice of Rajaji, his opposition to piling of nuclear weapons will continue to reverberate till a positive response is forced by circumstances. It may be that when the chips are drawn, the voice of India, following in the footsteps of Mahatma Gandhi, may provide saner counsels and be listened to for preservation of mankind. Let us unflinchingly dedicate ourselves to fighting poverty so that the toiling millions may find their legitimate place and become the bulwark of peace.

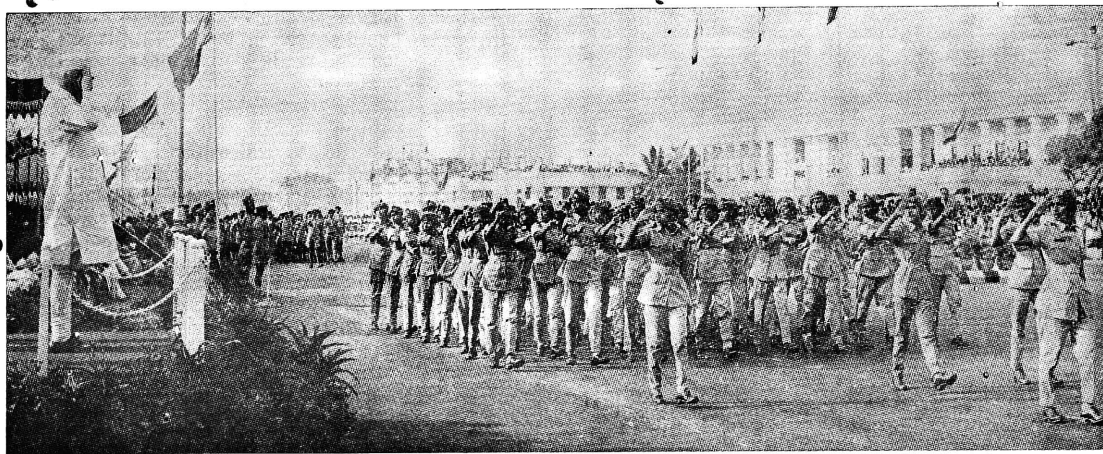
It is no exaggeration to say that in spite of trying and sometimes agonizing situations claiming heavy toll of our scant resources, we were about to reach the takeoff stage and could look to future with confidence in spite of the huge defence expenditure which went up from Rs. 350 crores to nearly 1,400 crores necessitating an additional outlay of about 8,000 crores after Chinese invasion in 1962 and an equally formid-

able destruction caused by flood, huge outlay on food to feed the evergrowing population and heavy burden of three wars, we have maintained our progress although at a lower pace. The fact that the huge burden of Rs. 25,000 crores in the last 10 years could be absorbed without violent upheavals is a demonstrative proof of sound health of our economy.

The praiseworthy feature of our economy is that it has developed a resilience which is unparalleled. There are ups and downs but on the whole there is no set back. There is unprecedented severe drought in certain parts of the country. Tamil Nadu and some other States were subjected to the savage onslaught of cyclone and floods. Yet we can say with confidence that we shall face these difficulties without substantial interference with our planned growth. What we need is a period of intensive and extensive application of all our resources and manpower. To create a congenial climate is the duty of everyone of us. We have to remember every minute that vast masses are still waiting for equality of opportunity. Even the barest means of livelihood are yet to reach them. The only consolation that we can draw is the fact that social objectives have become compatible with sustained growth and that difficulties have not shaken our determination to follow the directive principles of our Constitution.

The emergence of Bangla Desh and the decisive victory against unprovoked aggression by Pakistan create wider opportunities for accelerating pace of progress and for overcoming compulsions taking heavier toll of our resources. Even now we can safely say that the per capita consumption of basic items has not declined despite the explosion of population. Longevity of life has increased from 32 to 52. Literacy rate is gradually improving. The masses are habituated to wider

## FIGHTING POVERTY





use of media of mass communication like the radio, press and the film. Transport and communication systems have registered rapid development. Health services have expanded, consistently with our resources. Even then we are just on the fringe of the problem.

## MAJOR PROBLEMS

Our major problems are to raise the standard of living of the vast masses of our people; to give employment opportunities to millions of educated youth and rural landless labour; and to invest more in social security measures and rural development. Such a stupendous task cannot be achieved in the shortest possible time unless all resources—human and material—are pulled together by spontaneous and total co-operation from all sections. We will have constantly to remember that democracy provides more than enough opportunity for weaknesses being exploited. There is a perpetual fight between weaknesses and virtues of democracy. Short term solutions based on agitational approach create precedents which will shake democracy and make our prosperity shortlived.

In a developing economy, where birth-rate is still worrying us, it will be ruinous to indulge in luxuries of recriminations and exploitations of weaknesses inherent in democracy. A period of five years' truce is a must. In fact, at least for two decades we will have to forget party politics after the elections are over and utilise our collective wisdom, ability and energy for building the base of our stability and prosperity. "At a time when indiscriminate violence all over the world adds to restlessness and calls for sober counsels, extra effort will have to be made to maintain balanced altitude, multiply production, provide better opportunities to the neglected and avoid violence. We will have to begin from the top. We will have to make our legislative forum ideal institutions where dispassionate discussions become possible, where anxiety to help replaces anxiety to score and where healthy traditions provide inspiration and guidance to the rest of the country'.

The celebration of this national day gives us an opportunity to review our achievements in the State and to plan for our future.

## WORST FLOODS

The year 1972 witnessed one of the worst floods, causing unprecedented havoc specially in South Arcot, Thanjavur, Salem and Coimbatore Districts. The State Government has estimated that Rs. 25 crores would be required for undertaking relief works in areas hit by floods and cyclone in the State during December and has sanctioned Rs. 4 crores for taking up

immediate relief works. The Centre has also been approached for liberal financial assistance for flood relief work. Various relief measures like remission of land revenue and financial assistance to the people in the affected areas to help them rebuild their damaged huts and to reclaim the lands that had become sandcast are being undertaken. During the year under review, the agricultural operations were satisfactory. Food production has been stepped up and our State is now in a happy position.

The power cut is widespread in the whole country and it has affected Tamil Nadu also. The Government has taken steps to meet the situation by restricting power supply in the domestic, industrial and agricultural spheres. Government have succeeded in borrowing power from Kerala, but we are not out of the woods. Every effort is being made to meet the situation.

The Administrative Reforms Commission and the State Planning Commission have commenced work. The Administrative Reforms Commission has set up a number of groups to examine the procedures of the Government. The Planning Commission has set up a number of task forces to look into various aspects of the State's economy. These two bodies are expected to play a vital role in modernising the administration of the State and meet the requirement for faster growth.

## SLUM CLEARANCE WORK

Among the measures taken to help the poor. I may mention the Free Eye Camps that are becoming quite popular and useful, covering more than 6 lakhs of people during the year; the vigorous efforts of slum clearance work, as a result of which out of the targets of 23,232 tenements, 4,900 have been completed and 7,897 are under construction; the role played by the Youth Service Corps in doing constructive work in the villages; and the other legislative measures intended to assist the poorer sections in a number of ways.

## GENERATION GAP

The gap between the younger generation and the leaders in public life has to be closed as swiftly as possible. It is time a new approach to divert their unbounded energies to productive purposes is adopted. We are facing numerous trying problems. Let us, on our Republic Day, vow that neither frustration nor impatience, nor personal rivalry will succeed in disturbing our equanimity and that we will do everything in our power to strengthen the forces of integration and develop an urge for collective strength and wisdom. Let us pray that there may be more cheer, satisfaction, happiness and prosperity during the current year and that every household may enjoy the warmth of better days".



# THE REPUBLIC MUST BE A

In a Broadcast to the people on Republic Day the Chief Minister of Tamil Nadu, Dr. M. Karunanidhi said :

"To-day is the Republic Day ! the Impressive march-past by the contingents of the Defence forces and other departments was witnessed by lakhs of people this morning. There was an avalanche of people right from Gandhi Statute to Anna Square ! There was a march-past by the contingents of the Army, the Navy, the Air Force, the Police, N.C.C., Students and others. The cultural pagentry representing the traditional folk arts and dances like Karagam, Kummil, Kolattam, Puliyattam, Nadaswaram, Dummy horse dances, etc., impressed and enthused the people ! Year by year we are celebrating this day like this ! Every individual has the responsibility of preserving the decorum of democracy. Enjoyment of freedom does not mean encroachment upon another man's rights.

"Rights granted must be subject to reasonable restrictions and to the principles of equality and socialism. Liberty should not be so boundless as to destroy the very foundations of democracy. It is the majority that decides in a democratic set up. The democratic decision is arrived at not only in the case of forming a government but even in associations of different types the democratic procedure is followed and the decision of the majority has its way. That is democracy. No individual who wants to thrust his opinion on the majority and disregards the opinion of the majority be a democrat. Similarly, it won't be democratic if the opinion and welfare of the minority are disregarded and neglected by the majority.

(There's a time for.....)

"Even if decisions are taken democratically by various organisations in accordance with their constitution, there is a stage in democracy to arrive at a final decision and here is also a time for the final decision. If we are prepared to wait for the time appointed under the democratic set up, we can be proud of safeguarding democracy and democratic institutions.

"In democratic set up agitations are inevitable. But it must be impartially pondered over whether an agitation is resorted to, to solve issue or issues are created for starting agitations. Even if the cause of an agitation is just, if the agitation is carried on peacefully the foundation of democracy would be unaffected.

"We are endeavouring to unfurl the victory flag of socialism from the top of the Democratic tower. It may take time for us to hoist the flag to the top because our country is not sufficiently awakened in the social, economic and political spheres. Other countries are on the march towards socialism but our country is still slumbering and it needs awakening, and we have to prepare ourselves for the race.

"It is because of this that we are not able to achieve socialism as other nations have done.

How many schemes ! What an enormous investment ! In spite of all these poverty rules supreme !

"The poor and the ignorant and suffering ! The wicked people also are there to add to the misery of the poor, and to add to their troubles !

"A number of welfare schemes have been implemented to do away with poverty. Yet we have not provided a content life for the great society of India.

With the belief that the plans will be evolved in the future, keeping in view this purpose of satisfying the whole society, we are carrying on our duty.

Tamil Nadu has the distinction of being one of the leading States that have played a notable part in preserving the unity and integrity of the nation and in maintaining the best democratic principles. We don't simply stop with celebrating the Republic Day but we are contemplating the ways and means of preserving our democratic set up. When there is ample opportunity to express opinions peacefully, there are some who indulge in instigating violence. Violence is checked by the Government. Yet the people should be cautious about violence-mongers.

"What is it that provides opportunity for violence-mongers ? We must be aware of that also. Where the majority suffers and the minority enjoys, where the worker suffers and the rich are becoming richer, where poverty reigns—there lies the opportunity for the violence-mongers.

"To eliminate such opportunities of violence and to eradicate poverty the Tamil Nadu Government is doing its best.

"We have launched the Free Eye-Camp Programme to provide free eye-treatment to one lakh persons this year.

"Six Beggar-Rehabilitation Centres have been constructed with accommodation for 5,000 leprosy beggars. Four more will be started shortly. Then there are the crash programme for providings :

Electricity to all villages !

Drinking water and drainage in all villages !

Road connection to all villages !

Mansion for the slum-dwellers !

Radical steps and legal measures to abolish untouchability !

"These are only a few of our schemes to raise the people of the lowest strata. Land Reforms and Nationalisation of Transport are speedily effected to establish a socialist society.

"Independence of India was the first stage ! Declaration of India Republic was the Second Stage !

"The establishment of a socialist society is the third stage !

"These three stages are not final. There may be other stages of progress. Let us pledge that we will keep up the integrity and unity of the nation and in each stage we will co-operate to succeed !"

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# HOW BEST TO TIDE OVER POWER CRISIS

The Tamil Nadu Government has imposed a 25 per cent power cut. The salient features are 25 per cent power cut on all HT and LT supply except to continuous process industries for which a cut of 15 per cent cut will be applicable and newspapers with a cut of 10 per cent. Agricultural services essential services and domestic and commercial services with an average consumption of 100 units a month are exempted from the cut. New services and additional load except for agricultural, domestic and commercial purposes are banned.

This cut will bring forth a reduction of about 90 million units a month as detailed below :—

	Monthly Million Units.	Monthly reduction. Million Units.
Cement ..	34	5.1
Chemicals ..	48	7.2
	27	4.5
Other HT	206	31.0
Supplies, Domestic,	48	7.5
Commercial, street lights, etc.	—	—

	Million Units.
Reduction in line losses	15
Total reduction per month	90
Total reduction for eight months.	720

As it may be difficult to achieve 100 per cent reduction in practice, at the most a reduction of 500 Million units may only be expected. This leaves a deficit of 316 Million units that too if the increase in generation at Ennore, Neyveli and availability of relief from Kerala are achieved. The deficit will be increased further if any proposals contemplated do not materialise. In case the generation at Ennore and Neyveli are not increased the quantum of power cut may have to be increased beyond 50 per cent.

## REASONS FOR SHORTAGE

The reasons which resulted in this shortage would need an analysis.

The various factors which led to this situation are enumerated below :—

## I. Under utilisation of thermal Plants

*Neyveli.*—The installed capacity in the station is 600 MW. This station is designed for a generation of about 3500 MU a year. Leaving 500 MU for internal (i.e. in Neyveli) consumption the relief available to Tamil Nadu is to be about 3000 MU-a year. As against this the relief given to Tamil Nadu in the past three years has been as below :—

1969-70	..	..	1952 MU
1970-71	..	..	1521 MU
1971-72	..	..	1922 MU
1972-73	..	..	1620 MU
(proposed)			

Thus there is shortfall of 1000 to 1500 MU a year. The power development programme was conceived based on full utilisation of Neyveli. The shortfall in generation at Neyveli has created a power shortage of big magnitude.

## II. Failure of Monsoon.

The storage in hydro reservoirs in the State is only 536 MU as on 1st October 1972 as against 1695 MU last year and 876 MU year before last. It may be evident from the statement below that this low storage is on account of low inflows at hydro stations this season and higher utilisation:—

### INFLOWS

	1967	1968	1969
<i>In Million Units.</i>			
June ..	325	207	105
July ..	874	1067	822
August ..	329	556	310
September ..	139	251	234
	1867	2081	1471
<hr/>			
	1970	1971	1972
<i>In Million Units.</i>			
June ..	261	701	167
July ..	435	502	761
August ..	597	439	274
September ..	202	323	164
	1495	1965	1366



## HYDRO GENERATION

(Excluding Mettur)

	1969	1970	1971	1972
	(in Million Units)			
June	194	182	164	322
July	213	218	244	353
August	185	247	268	340
September	177	259	266	372

III. Hitherto the shortfall in thermal generation has been met by purchase of power from neighbouring States. But, there has been an appreciable reduction in outside relief during 1971-72 and 1972-73 as may be seen from the statistics furnished below :—

Relief from.	1969	1970	1971	1972
	to	to	to	to
	1970	1971	1972	1973
Kerala	303	335	336	252
Mysore	206	724	3	Nil
Total ..	509	1059	339	252

During 1971-72 though there was an appreciable reduction in relief the situation was managed on account of better inflows in Tamil Nadu Electricity Board reservoirs and by depleting the storage at the end of the year to the minimum. This season, started with a minimum storage of 168.5 MU on 27th June 1972 and this coupled with low inflows has resulted in low storage as on date.

IV. Compared to the previous years the month wise consumption has been high as may be seen from the statement below :—

	1970	
	MU increase per cent.	
June .. ..	511	11
July .. ..	515	10.8
August .. ..	491	11.2
September ..	509	9.9

1971

	MU increase per cent.	
June .. ..	557	7.8
July .. ..	563	9.3
August .. ..	542	10.4
September ..	552	8.5

1972

	MU increase per cent.	
June .. ..	595	8
July .. ..	627	11.4
August .. ..	629	16
September ..	607	10

To sum up, whereas there has been an increase in the rate of growth, there has been reduction in the inflows, reduction in relief from Neyveli and neighbouring States and non realisation of full benefits from plants put up to meet the additional demand. The cumulative effect of this has resulted in a shortage of about 1750 MU for the 8 month period from October 1972.

The failure of South West Monsoon, the low generation at Neyveli and stoppage of relief from Kerala and Mysore has cumulatively caused serious power shortage in the State. The present storage in our hydel reservoirs is only about 35 per cent of the storage that was available last year.

At this critical period when the whole nation is faced with power crisis, it is essential that total austerity is observed in the use of electricity, avoiding lavish illumination, display lights, etc. and by restricting the use of air conditioning, domestic appliances, etc. Every unit thus saved would go to meet the needs of agriculture and industry.

As the power deficit is likely to continue for sometime, the industrialists are advised to go in for diesel generating sets to supplement power supply to their industries. Industrialists desirous of owning diesel sets may contact Electricity Board for assistance.

All users of electricity are requested to comperate with the Electricity Board to tide over the present crisis.

## 15 per cent Surcharge on supply of Electricity

One of the principal sources of power for the Tamil Nadu Electricity Board has been the Neyveli Lignite Corporation which has been supplying power at 5.9 paise per unit from 1968. It has been agreed recently that this rate would be enhanced to 8.1 paise with effect from power supplies for 1972-73. It is calculated that the annual extra cost of power on account of the increase of price of Neyveli power will itself be Rs. 4 to 5 crores.

Besides Tamil Nadu is not able to get even its normal requirements of coal for power houses, because of the shortfall in coal production in Singareni and transport bottlenecks. Hence, the Tamil Nadu Electricity Board has (a) to use furnace oil and (b) to purchase coal from Bihar, Bengal collieries, which coal could be transported only by sea. This factor alone costs the Board annually Rs. 7 crores.

Accordingly, it has been decided to levy a surcharge at a rate of 15 per cent on the monthly charges in respect of the following classes of consumers in the areas served by Tamil Nadu Electricity Board and by the Electric licencees.

- All High tension consumers (other than bulk supply to licencees).
- All Low Tension supplies other than Domestic, Domestic Bulk Supply, Agricultural purposes and public lighting.
- High Tension special loads including railway traction.

The levy of this surcharge will take effect from 1st February, 1973. This surcharge will bring in annually only Rs. 6 crores as against the enhanced costs which come to about Rs. 12 crores a year.

# PENSION RULES FOR TEACHING STAFF IN

In G.O. Ms. No. 2801, Education, dated 20th November 1962, Family Pension was extended to teaching staff in non-Government educational institutions under the following terms :—

(i) For purpose of Family Pension, the term 'family' shall be as defined in the Madras Liberalised Pension Rule, 1960.

(ii) The rate of Family Pension in respect of teachers in non-Government service shall be one half of what is normally admissible to a teacher in Government service with the same length of qualifying service (i.e., completed years of qualifying service—*vide* letter No. 26359/E6/63—20, Education, dated 8th April 1963).

(iii) The families of teachers, who retired on or after the 1st April 1962 or were in service on re-employment terms on that date and who die thereafter as well as teachers who die while in service on or after 1st April 1962 shall be eligible for family pension provided that such teachers had completed not less than 20 years of qualifying service. The pension shall be granted to such families for a period of ten years provided that the period of payment of family pension shall in no case extend beyond a period of five years from the date on which the deceased teacher retired or on which he would have retired on superannuation pension in the normal course according as the death takes place after retirement or while the teacher is in service.

2. In G. O. Ms. No. 380, Education, dated 9th April 1969, the terms of Family Pension mentioned in paragraph 1 above were liberalised as follows :—

(i) Families of teaching staff, who retired on or after 1st April 1969 or were in service on re-employment terms on that date and who die thereafter as well as teaching staff, who die while in service on or after 1st April 1969,

## NON-GOVERNMENT SERVICE

shall be eligible for Family Pension if they had completed not less than 5 (five) years of qualifying service.

(ii) Such family pension will be granted—

(a) Upto the death of remarriage of the widow/widower whichever is earlier ; or

(b) till the date of attaining majority in the case of minor children or till marriage in the case of minor daughter, if such daughter is married before attaining majority.

*Note.*—For the purpose of this rule the age of attaining majority in the case of minor sons is 18 years and in the case of minor daughters 21 years.

(c) in the case of unmarried teachers to the father, failing which to the mother, subject to the condition that such person was dependent on the deceased Government servant for support (this takes effect from 23rd September 1970).

3. The orders in G.O. Ms. No. 380, Education, dated 9th April 1969 came into force on 1st April 1969. The following clarifications are issued :—

(i) The orders are applicable to teaching staff of aided colleges (Arts, Training, Physical Education and Oriental) also.

(ii) The intention was that families of teaching staff, which were getting family pension on 31st March 1969 or had ceased to draw

Family Pension before 1st April 1969 consequent on the completion of the 10 years or 5 years period, shall also be eligible to get the additional concession (regarding extension of term of family pension) mentioned in sub-paragraph (ii) of paragraph 2 above, with effect from 1st April 1969 (without any claim for arrears prior to that date). This concession may be given to one beneficiary only on the analogy of G. O. Ms. No. 845, Finance, dated 2nd February 1965 applicable to Government servants. The following illustration will make the position more clear :—

“A teacher of an Aided or Local Body School retired on superannuation on 1st April 1962. He died on 10th April 1962 (after the Family Pension scheme sanctioned with effect from 1st April 1962 in G.O. Ms. No. 2801, Education, dated 20th November 1962 came into force). His widow received family pension from 10th April 1962 to 31st March 1967 (reckoning five years from 1st April 1962) and ceased to receive family pension from 1st April 1967. The effect of paragraph 3(ii) of the present G.O. is that she will again receive Family Pension from 1st April 1969 onwards, till she dies or remarries. She will not get arrears for the period 1st April 1967 to 31st March 1969 ;

(iii) When Family Pension was introduced for non-Government Teacher Pensioners in G. O. Ms. No. 2801, Education, dated 20th November 1962, Government servants were eligible for Family Pension only if they had put in 20 years and accordingly 20 years qualifying service was laid down in the said G. O. for non-Government Teacher-Pensioners also. Later, in the case of Government Servants, the qualifying service was reduced with effect from 1st July 1960, in exceptional cases, from 20 years to 10 years (in G. O. Ms. No. 1090, Finance, dated 12th September 1961), later with effect



from 1st April 1964 in all cases to 5 years) in G. O. Ms. No. 950, Finance, dated 29th July 1964) and still later with effect from 1st April 1966 in all cases to 1 year (in G. O. Ms. No. 441, Finance, dated 13th April 1966). But, in the case of teaching staff in non-Government educational institutions the minimum qualifying service for Family Pension was 20 years as per G. O. Ms. No. 2801, Education, dated 20th November 1962 and 5 years as per G. O. Ms. No. 380, Education, dated 9th April 1969 ; and

(iv) In respect of teaching staff of non-Government educational institutions benefiting under G. O. Ms. No. 380, Education, dated 9th April 1969, the following formula will be adopted, namely :—

Half the percentage rates laid down in rule 3 (3) of the Madras Government Servants Family Pension Rules, 1964.

The definition of 'pay' as given in the Family Pension Rules, 1964 will be adopted for non-Government teachers also. The rates will be as follows :—

1. Below Rs. 200—15 per cent of pay \* Minimum of Rs. 10.

2. Rs. 200 and above but below Rs. 800— $7\frac{1}{2}$  per cent of pay Maximum of Rs. 48 and \*Minimum of Rs. 30.

3. Rs. 800 and above—6 per cent of pay —Maximum of Rs. 75.

*Note.*—Where however the actual pay drawn is in excess of the maximum of the Government scale of pay, the maximum of the Government scale of pay should be taken into account.

\*The rates of minimum Family Pension have since been raised in G. O. Ms. No. 1988, Education, dated 17th November 1971.

4. As regards the recovery of 2 months pay from beneficiaries it is clarified that the beneficiaries under paragraph 2 above shall be required to agree to a deduction of 2 months' pay from the balance in the Teachers'

Provident Fund, provided that such deduction shall not be insisted on in the cases covered by paragraph 3 (ii) above. In the case of teachers retiring as bachelors/spinsters or without a wife/husband or minor children including adopted children or dependant parents in the case of unmarried teachers (from 23rd September 1970) the deduction of 2 months pay shall *not* be made.

5. Arrears of pension, if any, due with reference to the above orders with effect from 1st April 1969, shall be paid in full, immediately.

6. The deduction of 2 months' pay mentioned in paragraph 4 above shall be on the basis of the pay (such as the maximum of the Government scale of pay, etc.) adopted for fixing the amount of pension. It shall be made by the local bodies and aided managements from the local body contribution or Government contribution to the Provident Fund, as the case may be. In the case of amounts recovered from local body contribution, the amounts shall be credited to the State Government Account in the Treasury immediately, after recovery. In cases, where non-contribution is condoned by the Chief Educational Officers concerned as well as in the case of the exempted categories referred to in Note (i) below Rule 3 of the non-Government Teachers' Pension Rules, the recoveries may be made in cash and credited to the State Government Account. In cases where the recovery could not be effected from Provident Fund in cash, the same may be effected from the arrears of Family Pension. The amounts to be credited to the State Government shall be credited to the head of account "XLVIII, contributions and recoveries towards Pension and others Retirement benefits (a) Contributions from Pension and Gratuities—Other contributions". A certificate of compliance with the above requirements shall be recorded in the service books of the teachers concerned.

7. The expenditure will be debited to the following detailed heads of account under "65—Pension and other retirement benefits, (b) Family

Pension—L. Family Pension to Teachers of aided schools and schools of Local bodies'.

(i) Family Pension under the New Family Pension Rules (Voted).

(ii) Family pension under the Madras Liberalised Pension Rules, 1960—Voted.

The expenditure on the payment of Family Pension to college teachers shall be debited to "65—Pension and other retirement benefits—(b) Family Pension—Family Pension to teachers of aided Colleges" (already opened in G. O. Ms. No. 1671, Education, dated 15th July 1963).

### **PUNJAB NATIONAL BANK'S LOAN TO GOVERNMENT OF TAMIL NADU.**

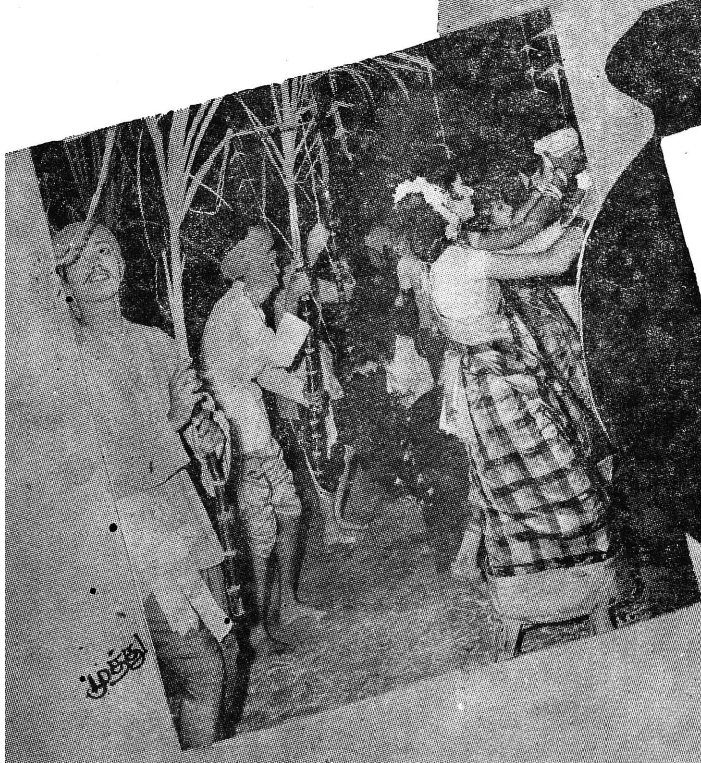
The Punjab National Bank has provided a loan of Rs. 3 crores against the stocks of pesticides held by the Government of Tamil Nadu for distribution to the farmers throughout the State for protecting the crops.

Thiru K. R. Subramaniam, Assistant Regional Manager, Punjab National Bank, Madras Circle, called on the Chief Minister, Dr. M. Karunanidhi at Secretariat today, (23rd January 1973) forenoon and handed over him a cheque for Rs. 1.75 crores, as part of the loan amount of Rs. 3 crores.

## Pongal Becomes a Tourist Festival

The Pongal• Tourist Festival this year was celebrated with the gusto that is the chief element of the festival, in Madras, Madurai and Tiruchi while Ootacamund celebrated it for the benefit of giving its Toda and Kota folk dance troupes some winter practice. Madurai's Race Course maidan reverberated with the pounding hoofs of rekla bulls and the furious stamping of jallikattu bulls. By all accounts Madurai bids fair to draw organised foreign tourists from next year onwards for the sight of our native sport of 'Jallikattu' (taming the run-away bull).

In Madras, the festival was in a more sedate manner. Rajaji Hall was the venue of the inauguration : an open space adjoining the hall was turned into a typical rural scene of hut and hay stack, well and the cart wheel. The threshing floor of this simulated village was the venue of delightful folk dance. Kummi attam and boiling of new rice. The dances were performed with virtuosity by students of Queen Mary's College led by. Kumari Parvathi, Geographyp



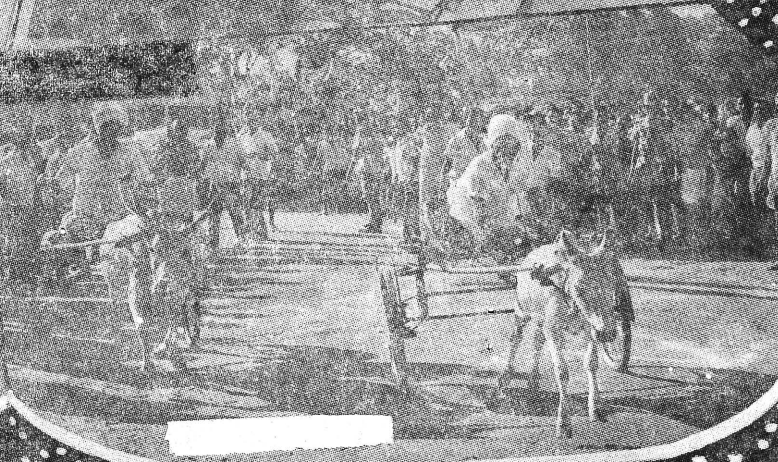
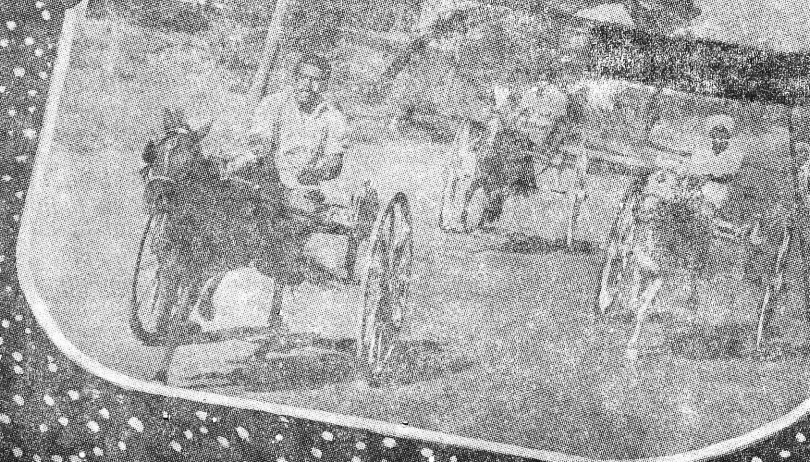
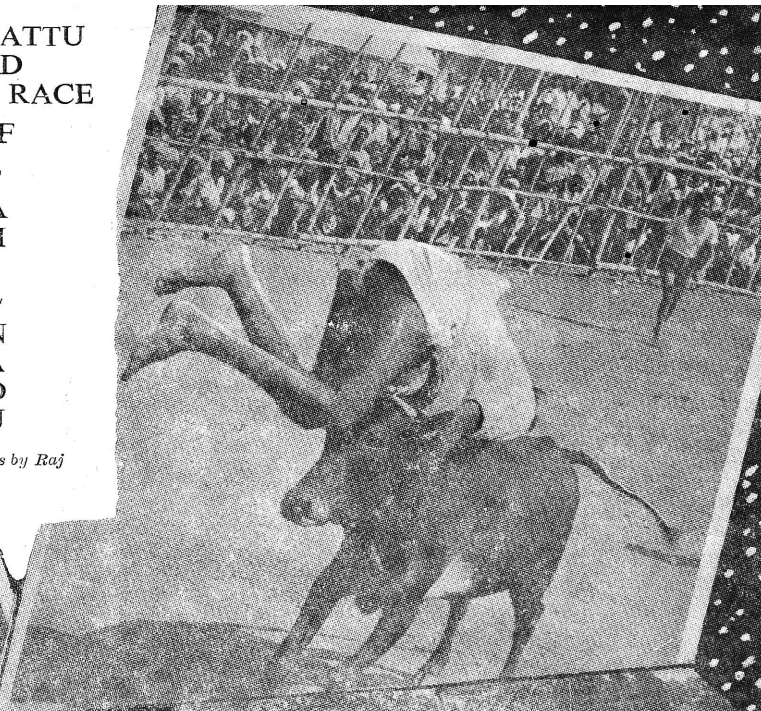
Professor in that College. The virtuosity of the scene drew the admiration of the Chief Minister, who in his inaugural address recalled a similar festival which he had witnessed in the United States, and wished that such a scene could be created in a place like the Nehru Stadium for the benefit of a larger audience. The pictures on this page are of Pongal dances performed by the students of Queen Mary's College.



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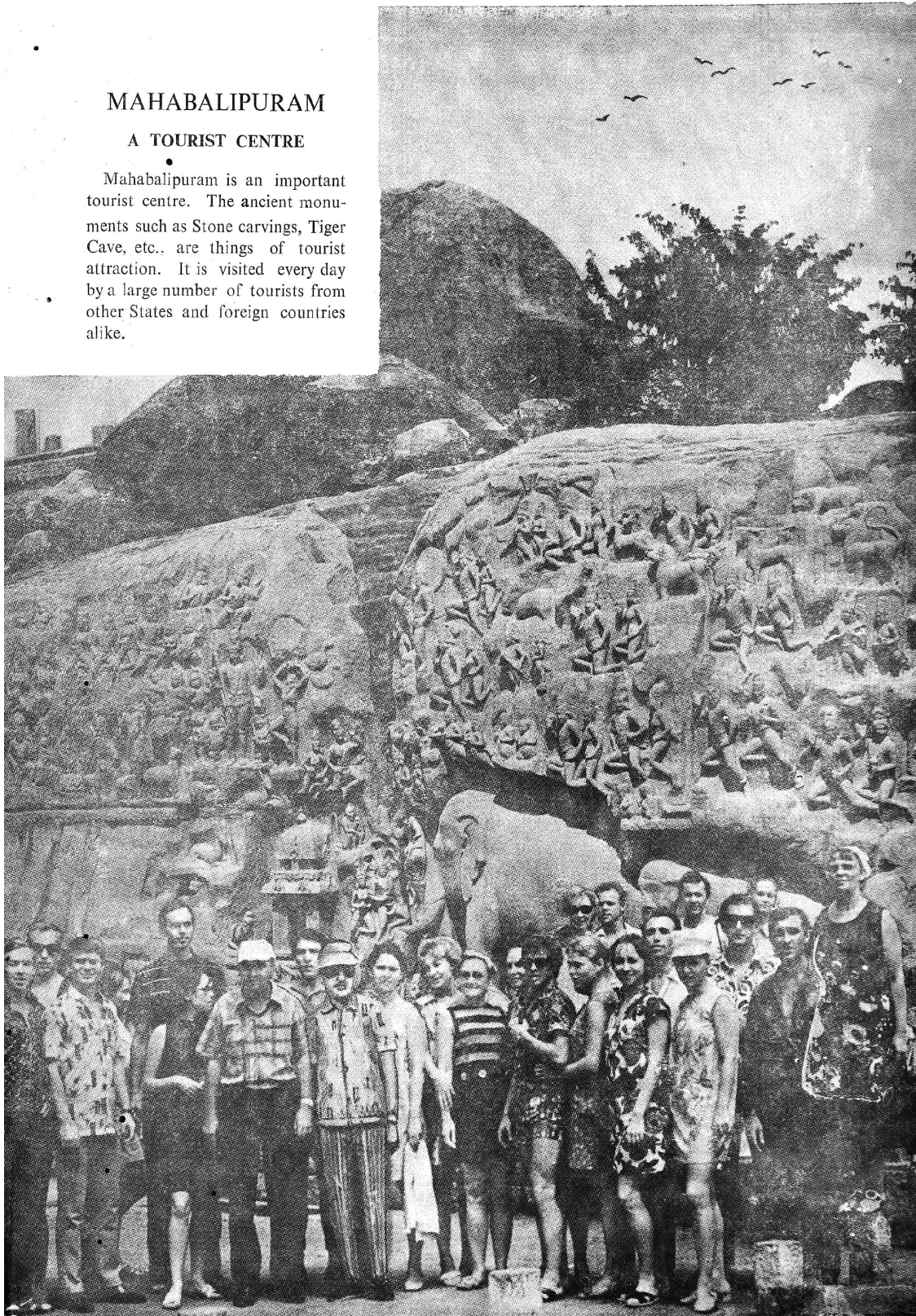
*Photos by Raj*



# MAHABALIPURAM

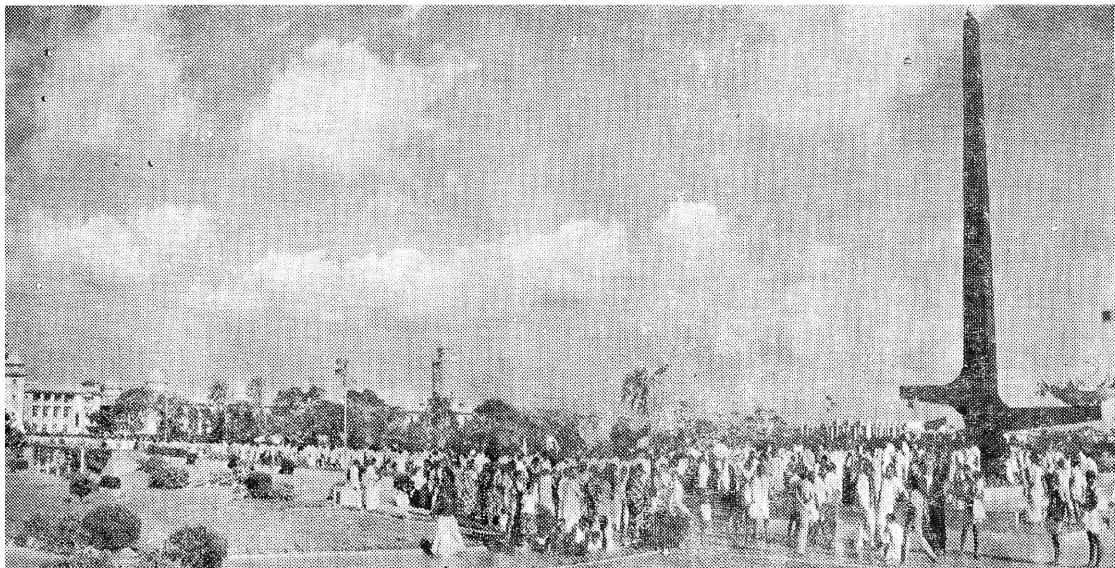
## A TOURIST CENTRE

Mahabalipuram is an important tourist centre. The ancient monuments such as Stone carvings, Tiger Cave, etc., are things of tourist attraction. It is visited every day by a large number of tourists from other States and foreign countries alike.





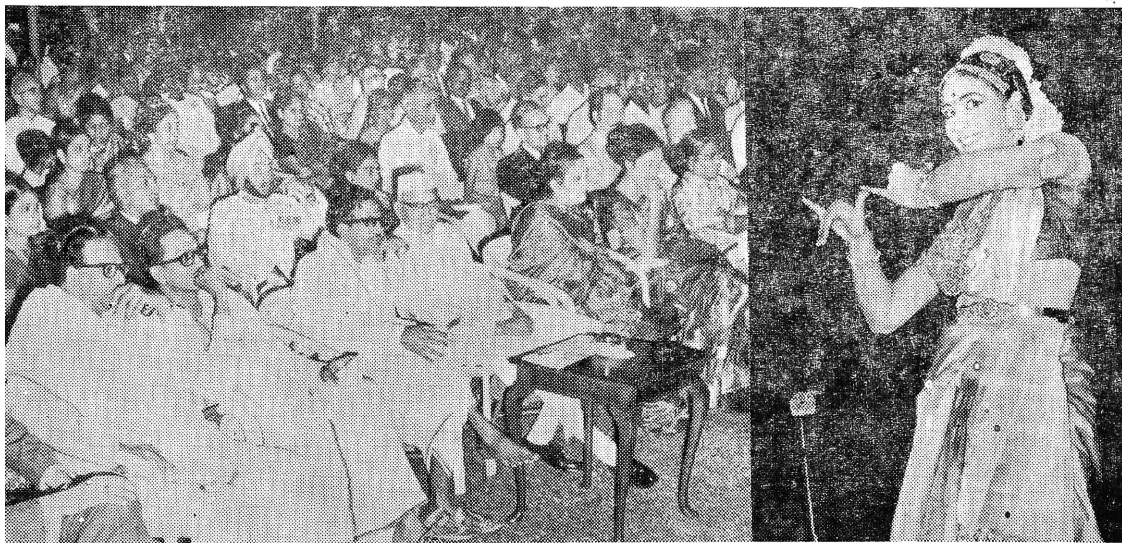
## HOMAGE TO ANNA



Anna Samadhi on 3-2-73 was the scene of reverential homage by lakhs of people.

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At the Governor's Reception on Republic Day this year Selvi Meenakshi Sabanayagam, daughter of Chief Secretary, gave a recital of Bharatanatyam.



## TAMIL NADU

### CHIEF MINISTER ON

### • APPROACH TO THE FIFTH PLAN •

Speech of Dr. M. Karunanidhi, Chief Minister of Tamil Nadu, at the National Development Council Meeting on 19th and 20th January, 1973, at New Delhi.

I deem it a privilege to present the views of the State of Tamil Nadu on the document "Approach to the Fifth Plan" placed before the National Development Council. Earlier in May, 1972, we had broadly endorsed the policies put forward in the papers "Towards the Approach to the Fifth Plan". We see that the present document spells out in somewhat greater detail the outlines of the approach. I am aware that a good deal of technical work has gone into the preparation of this document. Our task here is not to go into these technical aspects but to consider whether the policy framework needed for implementing the Fifth Plan is in position.

Drawing up a plan for Rs. 51,000 crores is only a first step. Unless we improve implementation, we will come up again with failures. One aspect of our experience in regard to implementation has been the shortages of basic materials such as steel, cement and fertilisers besides, power. These shortages have distorted our plans. While for instance, it is agreed that the removal of unemployment is a national goal, it is not often recognised that even existing small-scale industries can provide more jobs if there are more raw materials and more power. Inadequate supply of raw materials has closed many units in the country. We have heard of the steel bank, but it is still to become a reality. Unless these shortages are removed, our projects for the Fifth Plan will remain as mere paper plans. In respect of steel, we find that large quantities are available for the private sector but not for essential public sector projects. Fertilisers are scarce but are available in the free market and sell at high prices. We must correct these trends. Before we set ourselves the goals of an ambitious Fifth Plan, we should take steps to remedy these shortages. If necessary

we should contract to buy our net requirements on the basis of long-term arrangements from abroad.

Power Projects in particular have been delayed badly. This has led to disruption of industry and agriculture. I would therefore place the highest priority on enabling completion of power projects already initiated, if necessary, by allowing import of equipment, where it cannot be manufactured in India. Electricity Boards should also be allowed to raise necessary resources from banks and from the money market through flotation of additional debentures.

We welcome the emphasis in the paper before us on removal of poverty and unemployment. In some respects, these go together. In this context, we should recognise that many of our plan schemes go to benefit not the really poor but the relatively better off and privileged sections. As the approach paper points out even at the end of the Fifth Plan and even with a rate of growth of 5.5 per cent, the average per capita monthly income of the lower 30 per cent of our people will be only Rs. 37 at 1971-72 prices. This large mass of our people below the poverty line deserves all our attention. We should arrive at a national consensus to ensure that more jobs and opportunities are given to them even if it means that sections who are at present better off do not receive more benefits. This has implications for wage and price policy. Today, the more affluent sections of our people including certain sections of labour are continuing to get additional benefits while the mass of our people are steeped in poverty and getting less and less. This increase in the relative disparity has to be gone into. The approach paper has emphasised the need to relate increase in wages to gains in productivity. So long as we do not do this, inflation will continue. All these issues deserve to be discussed with the representatives of the working class and with the various parties in the country. We cannot, as a nation, afford to run away

from the implications of continuing the present policy of distributing gains of the national product only to a few sections of the people.

The approach paper does not bring out fully the administrative arrangements envisaged for the minimum needs programme for rural areas. We agree with the emphasis placed on bringing all backward pockets of the country up to certain agreed national norms. We are however of the view that once this goal is accepted, the moneys needed should be devolved to the State through the Finance Commission and not through Central sector programmes. In our view, there can be no question of having separate organisations at the Central level for implementing what are essentially State subjects.

The Finance Commission has been set up under the Constitution to look into the needs of States. The distinction between plan and non-plan outlays on current outlays is confusing and should be given up. All needs of States both under plan and non-plan including the minimum needs programme should be gone into by the Finance Commission in consultation with the Planning Commission. On this basis, the Finance Commission should recommend devolution of grants and taxes for both plan and non-plan outlays on revenue account to States. Only this arrangement will restore to State Governments the freedom and initiative for planning development they so sorely need. Only such a reform will give meaning to the concept of decentralisation and multilevel planning.

During the Fourth Plan, while central assistance to States was frozen at Rs. 3,500 crores, a number of new schemes costing an equally large amount were introduced on an *ad hoc* basis by various Ministries either as Central sector or centrally-sponsored. As a result, in many spheres, the policies of State Government were, in effect, sought to be controlled and manipulated by Central departments. This runs counter to the whole scheme of financial arrangements contemplated

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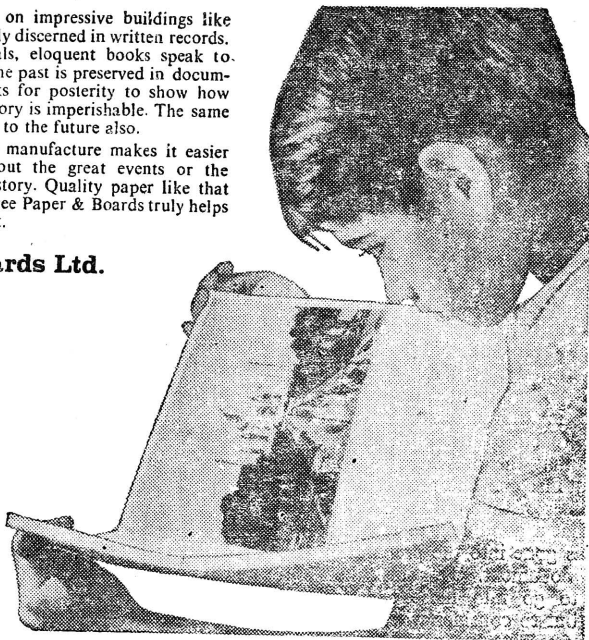
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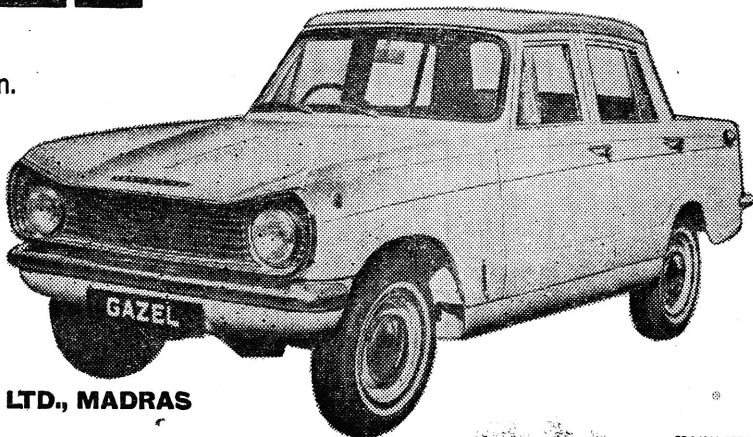
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by the framers of our Constitution. Our view is that this growth of Central and Central sector schemes in areas such as Education, Health and Agriculture, should be put a stop to. The amounts available for these schemes should be placed at the disposal of the Planning Commission and the Finance Commission for disbursement as Central aid or devolution to the States.

We believe that the criteria adopted for Central assistance need to be reconsidered now that a minimum needs programme has been put forward. Once the backwardness of states has been taken care of through such a programme, there is no need to give it weightage in Central assistance or devolution of taxes.

In regard to the assistance for capital projects, we would like to submit that an Inter-State Development Bank is necessary. It should finance schemes for water-supply, power and industries on a continuing project basis of commitment of resources instead of allowing them to be delayed and long-drawn out because of States' temporary financial difficulties. This Bank should work under the supervision and advice of the Planning Commission but should have representation for State Governments also at least on a system of rotation.

A developing country needs to emphasise the problem of unbalanced growth of urban areas. Metropolitan problems have a national character. Troubles starting in metropolitan areas have a tendency to affect the whole country. I would therefore suggest a separate national emphasis in order to solve these problems. Slum clearance, urban water supply, urban roads and transport should get special attention in the Fifth Plan.

The Approach Paper has emphasised the need to curb the growth of population. However, there are political and economic problems involved in this. As population rises are curbed in some States, they lose to that extent representation in the Parliament. Central assistance also goes down. Similarly, inter-religious differences tend to crop-up. A new policy must be evolved which sets at rest these fears.

The approach document emphasises the rate of growth in industry which it expects to be quite

high. During the last few years, fresh investment has been relatively slow. A clear outline of policy towards the larger houses and the joint sector is long overdue. While on this subject, I would also suggest that State agencies like Industrial Development Corporations should be looked on as important nuclei for future growth. Their applications for approval of collaboration and capital goods take time to be cleared. Now that there is not much enthusiasm on the part of larger houses, Industrial Development Corporations are the best source of entrepreneurship and the best agency for catalysing new enterprise at the middle level. They should be encouraged. Financially also, the Central financial institutions should help them with share capital and access to the debenture-market instead of confining them to State ceilings for plans and open market loans.

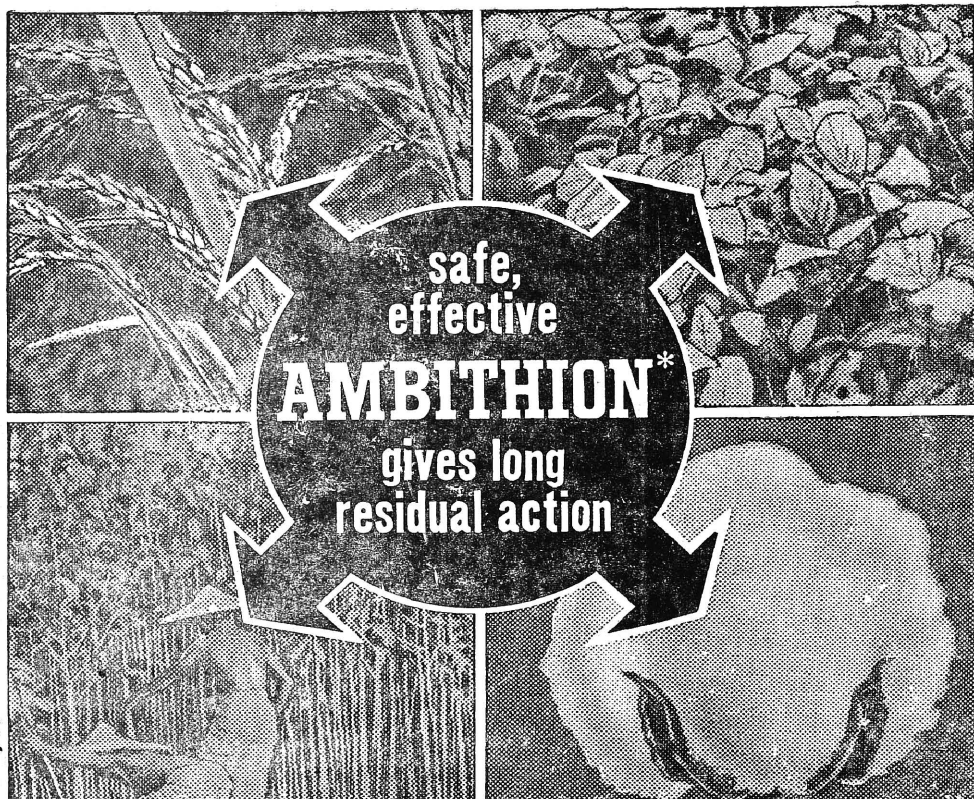
In May 1972, I had pleaded for a pragmatic policy towards foreign knowhow. I am happy to see that in the vital field of fertilisers and petroleum, there are signs of a change in this direction. I hope this will be extended to other sophisticated industries also.

The approach paper makes a number of calculations on how to get at the resources needed for the plan. Much reliance has been placed in the paper on additional mobilisation of resources. While as a Chief Minister in charge of Finance, I have initiated a number of taxation proposals, as a layman, I am often perplexed at the self-defeating nature of much of our taxation. Taxation of commodities like fertilisers adds to the cost of agricultural production and finally to increase in prices. Similarly, a considerable part of goods such as cement and steel is used in Government outlays. We may be paying part of these excises from out of Government's own resources. Besides, the increase in prices of these commodities raises costs of production of goods in general and this has impact on prices which in turn impinges on our wage-levels and State and Central resources. We would therefore urge that Government of India should set up a Comprehensive Taxation Enquiry Commission to look into this whole question and suggest solutions?

I would like to stress yet another point of vital concern of the economy and the country as a

whole. This is the question of unaccounted money. As a result of the present structure of taxation, large volumes of money are getting outside the accounting system. The prohibitive rates of income-tax at the higher levels, while they are justified from the point of view of the egalitarianism, are also leading to the drying up of enterprise. While as a matter of national policy, we are committed to eliminate the dominance of bigger houses and monopoly groups, we should not in a mixed economy, drive out the middle classes who not only save but also create jobs for others. Government and public sector cannot provide jobs for all. Unless we can create a large number of enterprising savers and investors, we will not be able to solve the problem of unemployment. From this point of view, I feel that we should make a bold new approach to the problem of inducing our professionals and our middle income groups to earn more and invest more. Today, these people do not have any incentive to earn and invest in a legitimate manner. Tax evasion carries with it not only a loss to the exchequer but also an incentive to ostentatious expenditure and reduces the savings available for the country. In talking this problem, we should not be prisoners of dogma. I have a suggestion to make. If professionals and persons belonging to middle income groups earn beyond specified limits, we should allow them to invest these incomes in various Government securities or in approved industries in backward areas and treat the *entire investment* as liable to much lower taxation, say, 15 to 20 per cent. If this is done, people will have less incentive to evade tax. This issue also can be referred to the Taxation Enquiry Commission I have suggested earlier.

Unemployment and poverty are our main problems. We must concert all steps in order to remove them. Indecision and vacant radicalism will not help us to solve them. May I assure the Prime Minister on behalf of the Government of Tamil Nadu that our strong support will be with her Government in all the socialist policy-decisions and measures taken with a view to eliminating poverty and unemployment from the country. We should all view this as a national task that transcends all barriers of party and region.



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# DR. M. KARUNANIDHI

## ON TAXATION POLICY

While addressing the National Development Council on the approach to the Fifth Plan Document, Dr. M. Karunanidhi, the Tamil Nadu Chief Minister, rightly pointed out that there is a need for the setting up of a Comprehensive Taxation Enquiry Commission for examining the scope for the rationalisation of the tax structure with a view to provide the necessary incentives for industrial development. He felt that it is necessary for such a Commission to go into two very important aspects of taxation, one of them being the scope for giving substantial tax incentives to professional persons and the middle income groups to enable them to invest their earnings in Government securities or in approved industries in backward areas. Dr. M. Karunanidhi with a very pragmatic approach added that their entire investment should be subject to a much lower taxation not exceeding 15 or 20 per cent. He added, that if, this is done, people will have less incentive to evade tax.

According to him, the other equal important task that should be entrusted to the Commission will be to remove the self-defeating characteristic which is present in some of the taxes. Taxation of commodities, such as fertilisers go a long way to add to the cost of agricultural production and finally to increase in prices. Similarly, a considerable part of goods such as cement and steel which are used in Government outlays, if subject to the payment of Duties, will add to the prices of commodities. It may be that the Government is paying all the excises from out of its own resources. Besides, the increase in price of these commodities raises the cost of production of goods in general and this has a serious impact on general prices which in turn impinge the wage levels and Central and State resources.

The Tamil Nadu Chief Minister deserves approbation for his most pragmatic view on the subject. The Income Tax Law in this country deserves to be rationalised in such a way as to provide the necessary incentives for the creation of savings. Persons coming within the income group of Rs. 10,000 and Rs. 20,000 per annum are subject to a heavy burden of taxation. Allowances which are admissible in other countries are not available to them. Purchasing power of an annual income of Rs. 12,000 to-day is only 10 per cent of what it was ten years ago. That being the case, an I.A.S. Officer getting a salary of Rs. 1,000, may find it very difficult to keep a status which he is called upon to maintain by his vocation. If this is the case

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by

*Professor C. S. MAHADEVAN.*

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with the I.A.S. Officers the position of officers getting an annual income between Rs. 8,000 and Rs. 12,000 is worse.

Income Tax system in most of the countries appreciate that though a person's ability to pay tax depends on the quantum of his income, it is also limited by his obligations in respect of supporting children and other dependents. However, apart from considerations of ability to pay, the provisions for allowance in respect of children are framed keeping in view whether through the tax system it is intended to encourage or discourage population growth. In Argentina and Australia, the quantum of children allowance is reduced after a certain number of children. In Malaysia, the rate of allowance is reduced for each additional child. On the other hand, in Belgium, Denmark

and West Germany, the quantum increases with each additional child. In Spain, no tax is payable at all by a family with 11 or more children. In Belgium, a family with 8 children escapes tax on income up to Rs. 60,750 while in Luxembourg a family with 6 children and income up to Rs. 30,200 does not have to pay any tax. In Brazil, Canada, Costa Rica, Finland, France, Greece, Ireland, Italy, Japan, Luxembourg, Netherlands, New Zealand, Nigeria, Philippines, Puerto Rico, Spain, Switzerland, Thailand, U.K. and Venezuela, the children allowance is uniform for each child without any limit on the number of children for whom the allowance is admissible. In Norway, the allowance is limited up to 6 children, in Ceylon and Kenya up to 4 and in India up to 2 children only. In France, Finland, India, Norway and Venezuela, children allowance is in the form of a specified deduction from tax.

In France and Luxembourg income splitting benefit is extended in respect of children also. Aggregate income of individual, spouse and dependent children, is divided in two or more parts. For instance, in the case of a married person without dependents it is divided in two parts. If the married person is with two dependents, it is divided in three parts (1/2 part for each dependent). Tax, payable on one part, is multiplied by the number of parts, irrespective of whether there is any income to wife or children or not. In U.A.R. the children allowance is admissible only if the income of the parent does not exceed specified limit, while in Austria the allowance is gradually withdrawn beyond a certain income of the parent. In Ireland, U.K. and U.S.A. the allowance is reduced in proportion to child's income. In Sweden, instead of an allowance under the Income Tax Act, tax-free subsidy of Rs. 1,300 is paid by the State annually for each child.



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M. SHANMUGHAM, M.L.A.,  
Chairman.

P. S. MUTHU SELVAN, M.L.A.,  
Vice-Chairman.

Expenditure on education is a substantial item by the parents of to-day. Free education has been found to be more costly than paid education. Books are costly. Special fees is collected in an inflated form which almost equals the former paid education. Apart from this, money has to be spent on dress and other items. Besides schools demand periodical donations. Education at the college level is 10 times costlier than what it was ten years ago. It is necessary to provide for the direction of expenditure on education for arriving at a taxable income. Tax structure in many countries takes into account all these facts by providing for higher or additional allowance in respect of education of children. The tax system in Australia, Canada, Finland, Malaysia, Nigeria, U.K. and even Pakistan are instances on the point. In India the allowance for education is restricted to only foreigners providing education to their children abroad. Therefore, it is suggested that an allowance of at least Rs. 1,000 may be allowed as educational expenditure for an annual income up to Rs. 15,000.

Such other allowances are made in computing the taxable personal income in various countries. Allowance for medical expenditure is a very important item. Medical expenses though in the nature of personal expenses, are allowed limited deduction in the computation of taxable income in such

countries as Canada, Japan, Mexico and Netherlands. In Canada medical expenditure in excess of percentage of total income is allowed deduction. A lump-sum deduction of Rs. 700 is allowed on this account without proof. In Japan, expenses on self, spouse or relatives in excess of 5 per cent of total income up to a maximum of Rs. 6,250 is allowed. In Mexico, a standard deduction, equal to 10 per cent of income, is allowed for medical and such other expenses. In Netherlands, 24 per cent of total income or amount in excess of Rs. 1,050 whichever is less is allowed for sickness or child birth. In this respect, the law in India is not very liberal as only expenditure upto Rs. 600 on medical treatment of one handicapped dependent is allowed as deduction and even this is subject to specified condition.

Old age allowance is another item which requires consideration by the exchequer. Some countries give preferential treatment if the tax payers are old. In U.S.A. for people over 65 years, 15 per cent of retirement income up to a maximum of Rs. 11,450 is allowed credit against the tax and the allowance is extended to spouse. In Denmark preferential treatment is extended to persons over 67 years with income less than Rs. 13,000. In Japan, preferential treatment given to people of 65 years and above provided their income does not exceed one lakh of rupees.

Thus, we find that in most countries such allowances as expenditure on education, medical aid and preferential treatment for older people exist in the tax structure.

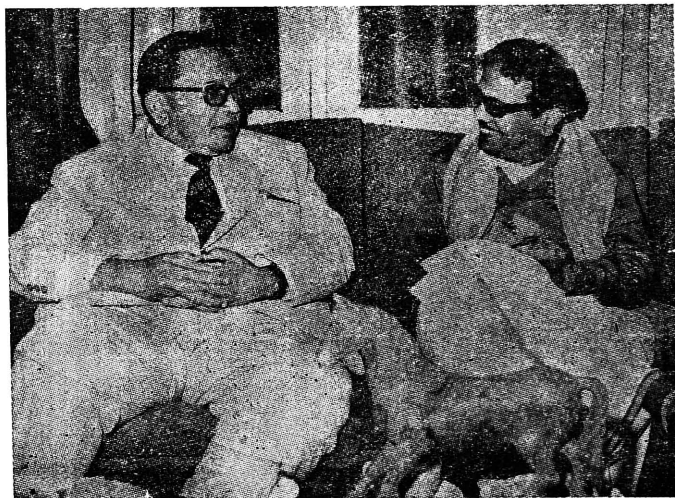
### The Tax Burden

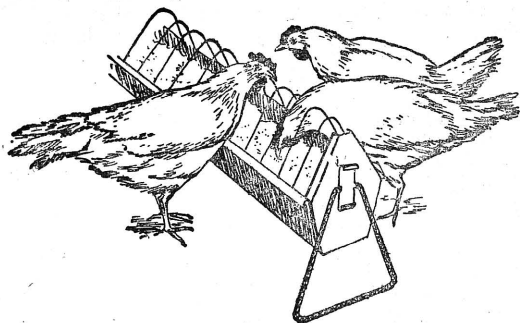
The rate of tax burden on the middle income group will provide an incentive for saving. People having an income up to Rs. 15,000 have a very high propensity to save and the only method of exploiting this propensity would be to provide them with the necessary tax incentives. The granting of allowance for education and medical expenditure will go a long way to enable them to save a very sizeable chunk of their income. This, in its turn, will provide sufficient savings to be tapped by the entrepreneurs to enter a capital market. In India, most industries are financed by loan assistance rather than equity participation. What is really required is great participation of equity capital rather than loan capital.

### Taxes for Equity Participation

The taxation is a very powerful instrument which can be utilised to provide adequate equity participation. The debt-equity-ratio must be such as to cause feverish industrialisation and it is expected that the suggestion of Dr. M. Karunanidhi will be accepted by the Union Government.

The Chief Minister  
always finds time  
to discuss ways  
of  
Improving State's  
Economic Pattern  
with visitors.





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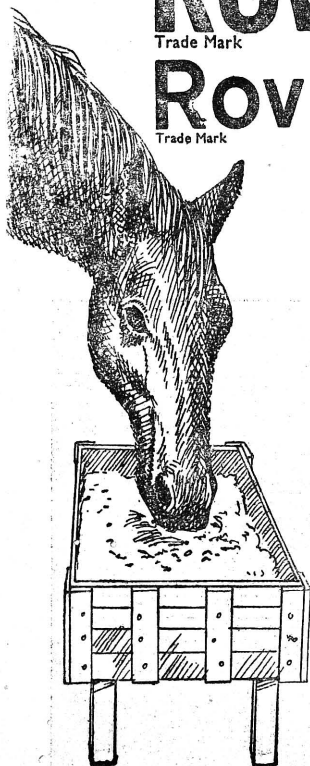
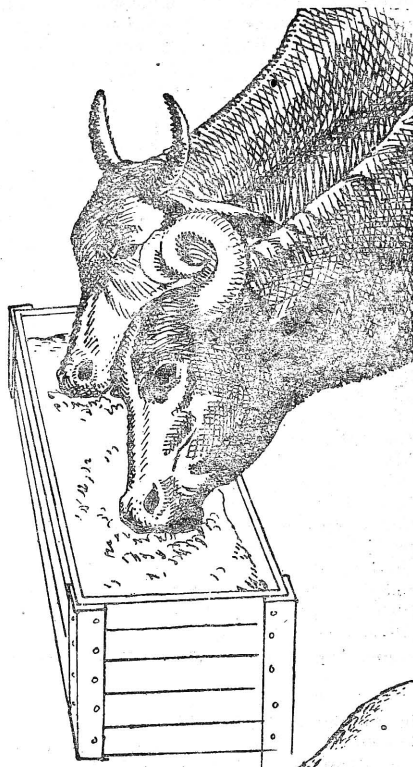
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India has been consistently stepping up Handloom cloth exports, despite the loss of her traditional outlets, by finding new customers in affluent countries. The figures of exports of handloom items during the last three years were as follows :

1969-70 Rs. 30.12 crores, 1970-71 Rs. 26.12 crores and 1971-72 Rs. 30.00 crores. It is expected that in 1972-73 the export figure will exceed Rs. 33 crores.

Ten years ago, the total volume of handloom exports stood at Rs. 10.1 crores. It increased to Rs. 30 crores in 1971-72, out of which the exports of cotton handloom goods alone accounted for about Rs. 22.66 crores.

Previously, handloom goods were mainly exported to the traditional markets like Burma, Ceylon, Malaya, Singapore, Middle East and African countries. Most of these countries developed their own textile industry with the result the demand for handloom goods started gradually coming down. The industry started looking towards markets in the Western countries and began catering to the highly discriminating countries. While the exports to the traditional markets remained constant, around Rs. 10 crores during the last three years, the exports to non-traditional markets have increased to about Rs. 20 crores.

Cotton handloom goods have recorded a phenomenal increase

# HANDLOOM EXPORTS INCREASE

during the last three years. Export of cotton handloom materials which was only Rs. 4.08 crores in 1969-70 touched Rs. 14.05 crores in 1971-72. Even here, the exports of cotton handloom garments have been steadily increasing as could be seen from the figures of exports, viz., from Rs. 1.20 crores in 1969-70 to Rs. 5.94 crores in 1971-72.

Exports of silks, however, have not been encouraging. From an export of Rs. 17.49 crores in 1969-70, it came down to Rs. 7.14 crores in 1971-72. The steep fall in the exports of silks have however, been made good by the increase in the exports of cotton handloom items.

The Handloom Export Promotion Council has been directing all its energies for the last seven years towards the generation of a favourable climate for the intake of handloom goods in foreign coun-

tries. The Council participates in exclusive textile exhibitions abroad where a wide variety of handloom items available for export are displayed.

## Prize Awards

The Council has instituted a Prize Award Scheme for outstanding export performance. In the first year of its introduction, three trophies, one each for best exports in the field of cotton handlooms, Silk handlooms and cotton handlooms garments, were given, in the next year, besides the three trophies special silver medals to eleven other exporters were given for their valuable contribution. The prize awards scheme has been revised this year to provide for a trophy, four silver medals and five certificates of merit in each of the categories, viz., cotton handlooms, silk handlooms and cotton handloom garments. In all recognition would be given to 30 exporters a year.

The feel of the hand-woven cloth is irresistible to the sophisticated.



## The Scope

The scope for increasing exports of fashion items to the Western countries is immense. By sending out delegations, study teams and participating in international fairs, the Council is trying its best to disseminate accurate market information about forthcoming fashion trends, etc., in foreign markets. There is, however, imperative need for is, however, imperative need for introducing a certain amount of discipline in our trade with the sophisticated countries. There should really be no need to resort to any kind of unhealthy competition, reduce prices or water down the quality to secure export orders. The exporters would have to ensure that certain basic minimum standards are maintained and that export prices do not come down below certain levels.

# INDIA'S FIRST CELLULAR CONCRETE PLANT



**GOES  
IN TO  
PRODUCTION**

## CELCRETE OF TAMIL NADU PROVIDES PROPER ANSWER TO THE HOUSING PROBLEM IN THE COUNTRY

The Celcrete of Tamil Nadu will find country-wide use, because, the Housing and Urban Development Corporation, a unit of the Government of India, is so impressed with the low-cost prefabricated housing designs of the Tamil Nadu Housing Board and is planning to propagate their use by all housing units in the country.

Disclosing this Mr. L. G. Selvam, Director (Technical) of the Corporation, said the present cost of construction of the conventional houses for the economically weaker sections (those earning up to Rs. 350 a month) varied between Rs. 7,500 and Rs. 10,000. However, the cost of a single room prefab unit having a plinth area of 200 sq. ft. constructed by the Tamil Nadu Housing Board with celcrete, was only Rs. 2,500, and that of a two-room unit with a plinth area of 400 sq. ft., Rs. 4,500. "I feel that

this is the answer to our problem today," he added.

Mr. Selvam stated that the general notion was that the prefab units consumed more cement and steel. But the Housing Board had proved that its designs used less cement but the same quantity of steel. The Structural Engineering Research Council and its Scientific Committee had given an encouraging preliminary report about the prefabs. The Council was satisfied with the soundness of construction of these houses and it reported that 30 per cent less cement was being used than in the conventional houses.

The Director said the technique would be perfected before the final draft project report was prepared for circulation to various housing units in the country. The Structural Engineering Research Council, in collaboration with the Central Building Research Institute, Roorkee, would conduct further research on various aspects like thermal conductivity, fire hazards and improvement of techniques to ensure comfort and cheaper construction, with lesser use of cement and steel. "This will be a continuing process and the Tamil Nadu Housing Board has agreed to provide the facilities", he added.

### USE OF FLY-ASH.

"We have also been propagating the use of fly-ash and industrial



waste, as it can easily replace cement to the extent of 20 per cent in concrete works and plaster", Mr. Selvam said, The Tamil Nadu Housing Board, which was using fly-ash in its buildings in the Korattur neighbourhood scheme had effected a saving of about four per cent in the overall cost.

The HUDCO would be willing to give loans if the municipal corporations in Tamil Nadu came up with housing schemes for their employees, he said. It would finance any project which added to the "urban housing Stock" in the country and conformed to its pattern of financing.

Mr. Selvam and Mr. K. K. Sachdev, Financial Controller of HUDCO, held discussions with Mr. J. Walter, Chief Engineer of the Tamil Nadu Housing Board and Executive Engineers on the progress of the neighbourhood schemes financed by the HUDCO in Madras.

Mr. Walter, Chief Engineer, Tamil Nadu Housing Board, says that the celcrete project has cost Rs. 365 lakhs. The Government of India has so far released through the State Government a sum of Rs. 262 lakhs. The cost of imported machineries, technical documentation and raw material testing charges of collaborators at Poland works out to Rs. 104.42 lakhs, the foreign exchange for which the Government of India had already been released to the foreign collaborators which needs to be reimbursed to the Government of India. The up-to-date booked expenditure inclusive of the above adjustment is Rs. 322 lakhs. The collaborators are also supplying spare parts for the machineries to the extent of Rs. 10 lakhs. The working capital required to run the plant in 3 shifts is estimated at Rs. 116 lakhs.

The present problems devolve on production, utilisation and catching up of a steady market for these celcrete products.

About 13,000 wall blocks and 700 roof panels will be produced in the factory per day when it goes into full production. This will be sufficient to construct about 11,000 flats per annum of 30 Sq. M. area of each flat. The total production value per annum will be Rs. 1-40 crores. The factory will give employment potential for about 300 workers for the three shifts.

On the whole, the collaborative functions were all really useful, constructive and educative. The Polish team throughout maintained a spirit of cordiality and wholeheartedly coordinated and fully cooperated with the Indian counterparts.

At a time when we were stranded to produce quality lime as per specifications Thiru Dobkowski readily agreed to the suggestion for trying production with shell lime instead of keeping the pact idle. This helpful attitude was extended to production by cement technology as well by his expert advice.

There is also a proposal to switch over to fly ash technology. Fly ash is available next door at the Ennore Thermal Plant and the management had held preliminary successful discussions with the concerned officials regarding the preliminaries for procuring of handling equipment for collecting dry fly ash from Thermal Plant, convey the same and store and use at our site.

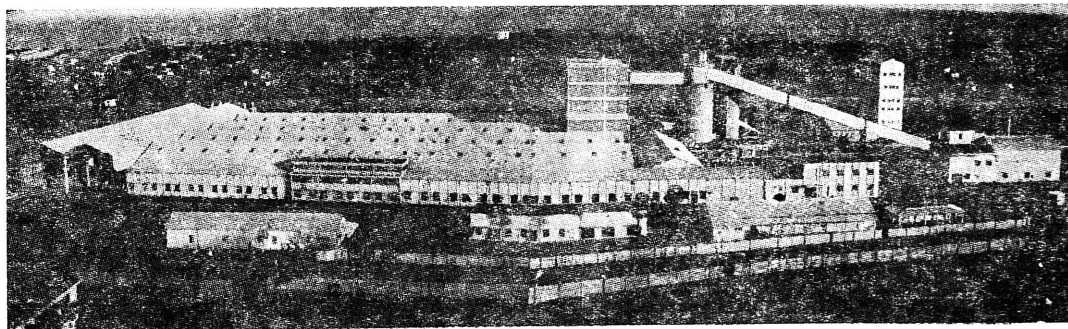
Fly ash is usable for the following purposes : Pozzalona, part replacement of cement in mortar, pozzalona Cement, Insulating

Cement, Oil well cement, Fine Aggregate, Foundry sand, Sand blasting grit, Filler material, drainage filter, Filter material, Light weight aggregate, Sintered aggregate, Prepacked concrete, Refractory mix, Abrasive, Metallurgical cement, Precast and hollow blocks, tree guards, wheel guards, kerbs, pavements, etc., Concrete dams Masonary dams, Filler in Rubber, Filler in bitumen carpet, Asphalt roads, Concrete roads, Lime Flyash aggregate mixtures, Stabilised aggregate base course, Sewage treatment plants, Lining of mines, Marine works, Break waters, Wharfs, coastal engineering works, Subsidence control, Flyash cement bricks, Sand lime flyash bricks, Lime flyash cinder bricks, Dry pressed silicate bonded fly ash bricks, Thermal insulation bricks, Mine fire control, cellular Concrete Reclamation, Soil Stabilisation, Earth dams, Mastics, Plastics Railway embankments, Tank bunds, Glass, Paints, Distempers, Colour washes, Grouting, Fertilisers and manures, Pipe Coatings and Guniting.

Characteristics of Fly ash are as follows : Pozzalana, Abrasive, High silica content, Stabiliser, permeability reduction, Light weight, Refractory, A good filter and carrier, Improved workability, Resisting aggressive action, Lower heat of hydration, Low conductivity counteraction of alkali-aggregate expansion and Low cost.

#### Advantages of celcrete :

The special feature of this new material in the building industry is that while they are light in weight they withstand high stress and strain and reduces dead load in the buildings and it is also easily workable by sawing, driving nails, drilling, etc., resulting in economy and saving in time.







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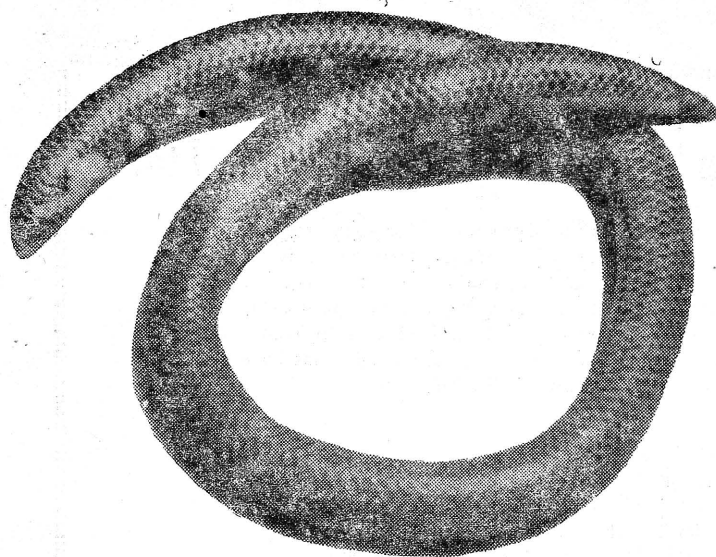
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# THE PRETTY SNAKES OF TAMIL NADU FORESTS



Commonly called Rough-Tail because of their peculiar tail which ends in a spiny shield, these worm like snakes are always small. Shying away from light, they lead concealed lives digging their way into the soil with their wedge shaped snout. They are so abundant in the foothills and forests of Western Ghats and one has only to 'turn' a stone in a damp locality for a glimpse of these innocent creatures. They are quiet and inoffensive in disposition. They never make an attempt to bite if handled or even irritated. When picked up, they try to enwine themselves round our fingers and love to be carried to long distances in that position.

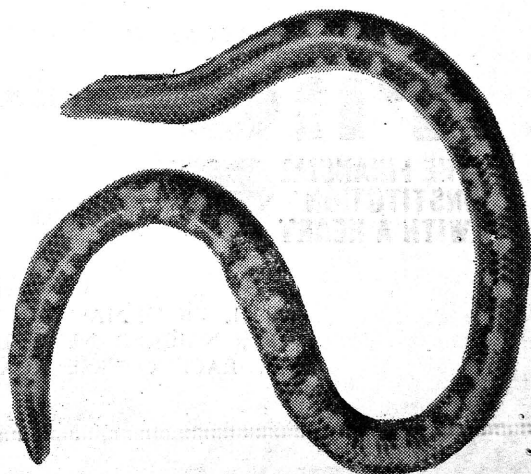
## Colour.

These burrowing snakes are brilliantly coloured which is an unusual and perhaps unnecessary feature for their concealed life. They are generally coloured red, orange or yellow and some of the black forms are remarkable for their iridescence. They feed on insects, worms and grubs. They produce living young ones—three to eight at a time.

These snakes are considered rare because of their hidden existence under logs or stones at high altitudes. During heavy rains they come out into the gardens and may be seen on ghat roads.

We should consider these pretty snakes as our prized possessions considering the fact they are to be found in South India and Ceylon only.

It is commonly believed that snakes are generally found hiding underneath big stones or logs in forsaken places and people are often so ignorant that if a big stone is lifted/turned a deadly Cobra with its raised hood or a hissing Viper will instantly make the scene. Few of us are quite aware of the existence of beautiful and harmless snakes also under stones in the hills and forests of the wooded districts of Tamil Nadu, Mysore, and Kerala.



By

T. S. N. MURTHY.

# The Tamil Nadu Industrial Investment Corpn., Ltd.

The Tamil Nadu Industrial Investment Corporation is sponsored by the Government of Tamil Nadu to provide all types of financial assistance to industrial units in the State of Tamil Nadu and Pondicherry. The financial assistance is given to all types of units including proprietary, partnership and Joint-stock companies. Special schemes have been framed to help Technocrats and Rural Medical and Veterinary Practitioners. Concessional terms have also been offered to backward areas and backward districts.

## The terms and conditions of assistance

Minimum: Rs. 1,00,000 (for small-scale industries : Rs. 25,000).  
For Technocrats and Rural Medical Practitioners : Rs. 10,000.  
Maximum: Rs. 25,00,000 (Rs. 2 lakhs and Rs. 1 lakh in the case of Technocrats and Rural Medical Practitioners respectively).

## Rate of Interest

9.75 per cent in the case of major and medium-scale industries.  
7 per cent in the case of units in backward areas and for Technocrats and Rural Medical and Veterinary Practitioners.  
8½ per cent in the case of other small-scale industries.

## Initial repayment holiday

2 years in the case of ordinary industries.  
Up to 4 years in the case of units in backward districts.

## Amortisation period

Ranging from 8 to 10 years.  
Special concessional terms are available to small-scale industries, technocrats, rural medical and veterinary practitioners.

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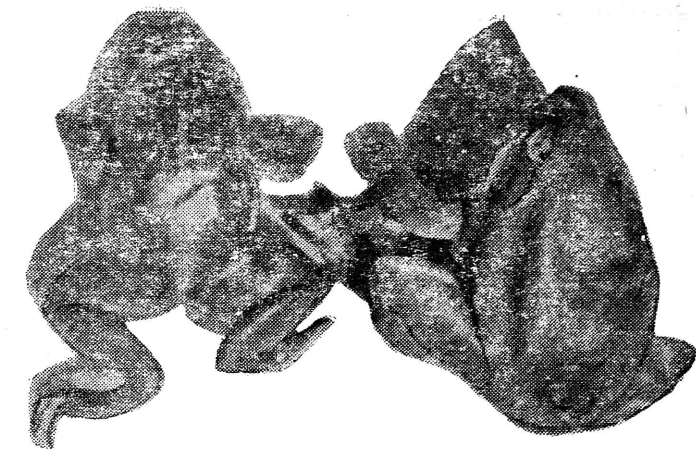


# FROGS EARN US FOREIGN EXCHANGE

Time was when we despised and detested the humblest and harmiest frogs as muddy creatures disturbing the stillness in rainy nights by their musical notes—Croaking loudly. Of late, two Indian frogs came into lime light and earned quick fame because of the huge exports of their “Legs”. The two Indian edible frogs are: ‘The Green Frog’ (*Rana hexatactyla*) and ‘the Indian Bull Frog’ (*Rana tigrina*). A moderately sized export trade has developed in these two frogs and Mangalore, Cochin and Goa are the main Centres of business for this exportable commodity in India.

It was, however, left to Romans to first taste the delicacy of the hind legs of the European edible frog (*Rana esculenta*). But now, the fancy of consuming frog-legs started first in France slowly spread to the United Kingdom and United States of America. Frog meat, which could serve as an easily obtained animal source of protein, is said to taste not unlike that of a chicken. Only the bulky hind legs are eatable and fifteen to twenty frogs are required to make a decent meal for one.

The Indian Bull Frog so called because of its size and strength of its voice occurs throughout India whereas its ally, the green Frog is



less bulky but found a plenty in dense aquatic vegetation of our tanks and marshy places which abound in South India and Bengal. The Green Frog is easily recognised by its leaf-green colour in life with which it conceals admirably amid ponds choked with weeds. It is caught by hook and line with a bait or scooped out in large

large numbers for breeding purposes. It is easily caught at night in a surprise by means of flash lights as it is dazzled by light and stop moving in a frightened mood when it is picked up and put in tins or sacks. Both the edible frogs are greedy creatures and take almost anything that is alive or get into their habitat. Their main diet appears to be the insects of various kinds chiefly beetles and large worms, miscellaneous crustaceans, fishes and above all small frogs.

By

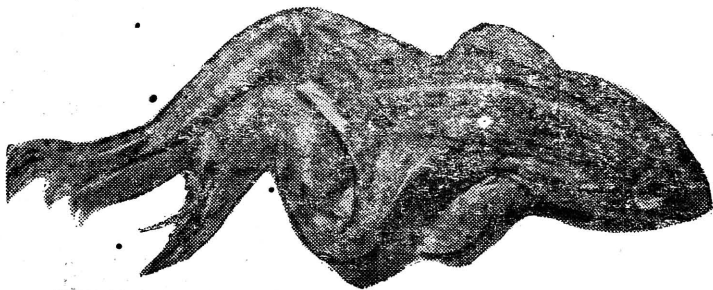
T. S. N. MURTHY.

numbers by a water net. However, it is not an easy affair with the Bull Frog as it is uncommon in large stream and canals and in pools with rocky or sandy bottom. It is solitary in its habit and largely a shy frog spending hours in the day quietly under bushes or in a Concavity near water's edge. It becomes active in the nights and more so during monsoon when it congregates in

At present, the edible species are captured, 'treated', and exported. For the purposes of freezing and canning later, the method employed early was to chop off the hind legs of these frogs leaving them to die a slow and painful death. It was revolting to see the jerking out their legs when alive and the consequent bleeding and squeezing of their mutilated bodies. Thanks to fair-play and justice, a more humane technique has been evolved whereby the frogs are subjected first to narcotization on scientific lines by immersing them in 10 per cent brine solution. Frogs cannot survive in saline water and hence die slowly without any severe pain.

Though the Frog meat is yet to be placed on our bill of fare, it is gratifying to note the foreign exchange earning by export of Frog legs has been steadily increasing.

Threatened with phenomenal rise in population along with deficit for food supplies, the time is not far off when Indians include frog legs on their menus on an extensive scale.



# GOVERNMENT OF TAMIL NADU PUBLICATIONS.

The following publications are available for sale at Government Publications Depot, 166, Annasalai, Madras-2.

Serial number and name of Publications.	Price.		Serial number and name of Publications.	Price.	
	RS.	P.		RS.	P.
1 Biennial Civil Medical List of Gazetted Officers of Tamil Nadu (Corrected up to 1st January 1968).	8	75	20 Classified Catalogue of Tamil Printed Books with Introductory Notices—Compiled by John Murdoch.	11	50
2 தாய்மையும் குழந்தை நலமும் ..	1	65	21 Silver Jubilee Commemoration Seminar Papers—Tamil Nadu Statistics.	9	70
3 Revised Syllabuses on Commercial Subjects Lower and Higher Grade Examinations.	0	65	22 A Hand Book of Some South Indian Weeds.	7	00
4 Reply to Memoranda presented to the President of India.	3	00	23 Noi Illa Neri—Siddha Text Book Series (Tamil).	6	62
5 இந்தியக் குடியரசுத் தலைவரிடம் அளிக்கப்பட்ட மகஜர்களுக்கு பதில்.	3	00	24 Glossary of Administrative Terms (English-Tamil).	5	10
6 State Rules to Regulate the grant of Advances to Government Servants for Buildings, etc., Houses.	0	40	25 Season and Crop Report of Tamil Nadu (1968-69).	3	35
7 அண்ணா மலர்—பிப்ரவரி 1969 ..	1	00	26 Statistical Hand Book of Tamil Nadu, 1970.	2	00
8 ANNA MALAR February 1969 (English).	1	00	27 Hygiene and Preventive Medicine—Tamil.	0	87
9 கிராமங்களின் அகர வரிசைப்பட்டி.	11	10	28 Midwifery for Village Vaidya—Tamil.	0	87
10 Portrait of present Chief Minister ..	1	00	29 Centre—State Relations Inquiry Committee by P.V. Rajamannar—English.	5	00
11 List of Recognised High and other Special Schools (corrected up to 31st March 1970).	5	30	30 மைய மாநில உறவு ஆய்வுக்குழு அறிக்கை—தமிழ்.	5	00
12 Law Lexicon A to Z .. .. .	9	00	31 Teachers Service Register for Aided Secondary Schools.	1	90
13 Quarterly List of Gazetted Officers (corrected up to 1st April 1970).	2	00	32 Grant-in-Aid Code .. .. .	1	45
14 Tamil Nadu An Economic Appraisal Part I and II, 1972.	15	00	33 Irrigation Manual—by Ellis .. ..	5	60
15 Tamil Nadu Co-operative Manual ..	17	50	<b>REDUCED PRICE PUBLICATIONS.</b>		
16 Tamil Nadu Loans (Takkavi) Manual.	9	10	1 A Monograph on Madras Bananas	2	46
17 Tamil Nadu Market Committee's Accounts Manual, Volume I.	25	90	2 A Monograph on South Indian Mangoes.	1	96
18 தொழிலாளர் வருங்கால வைப்பு நிதிச் சட்டம், 1952.	2	90	3 Techno-Economic Survey of Madras.	2	50
19 Hand Book of Economic Entomology for South India.	13	75	4 Food and Agriculture in Madras State.	0	50
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Director of Stationery  
and Printing, Madras-1.

To develop the hotel industry on a scientific basis, sufficient number of technically qualified personnel is required to man the industry in its various departments. With a view to meet this demand, the Government of India sponsored four regional institutes of Catering Technology at Madras, Bombay, Delhi and Calcutta with the co-ordination of the respective State Governments.

The Institute of Catering Technology and Applied Nutrition, Madras, is one of those four institutions which started functioning from 1963. The institute is designed to train promising men and women in catering technology. The practical presentation and emphasis on nutritional ideas will be a significant aspect of the technical training given to the students in this institute.

The main aim of these institutes is to train up candidates of the diploma standard to fill the supervisory cadre of the hotel industry. These candidates are taught as many as 13 subjects during their three-year course after S.S.L.C. laying emphasis on practical aspects of the industry. The subjects they study cover Cookery, Bakery, Hygiene, Book-keeping, Restaurant and Counter Service, House-keeping, Nutrition, Basic Sciences including Physics, Chemistry and Physiology, Catering Management, Hotel Reception and First-aid apart from English and French as languages. In addition to this, the Institute offers short-term courses in the various trades of the hotel industry, such as Bakery and Confectionary, Cookery, Waiting, Reception, Food preservation and so on.

The candidates passing out of these Craft Courses will be fully competent to take up a job of responsibility in their respective trades. The basic qualification for admission to the Diploma course as well as for many of these Craft courses is a pass in S.S.L.C. with sufficient knowledge of English. At the end of each year of the diploma course, the candidates appear for an examination conducted by the State Board of Examinations, Government of Tamil Nadu.

During the vacation period between the second and third years and after the completion of the third year the students are allotted

# THREE YEARS IN THE CATERING INSTITUTE MAKES ONE A QUALIFIED CATERER.

PRACTICAL  
TRAINING  
FOR  
HOUSEWIVES  
ALSO TAUGHT.

to various hotels to undergo practical training under actual working conditions to equip themselves with more practical knowledge and get confidence in their skills. In addition to this, the institute undertakes outside lunch and dinner parties with the help of the students to enable them to get more confidence. Thus it will be seen that a candidate after undergoing the three years course will be fit to take up any position of responsibility with the required knowledge and confidence.

The majority of the candidates who have passed out so far have got into jobs and it is expected that the demand for persons trained in this line will increase in the years to come with the hoteliers realising more and more the necessity and advantage of employing more and more trained personnel. The institute is indeed very fortunate in getting the co-operation of the South Indian Hotel and Restaurants Association in placing its students for practical training in their member hotels and also getting them absorbed in more and more numbers from year to year. The South Indian Hotel and Restaurants Association has also been encouraging the Institutes in more than one way by instituting a scholarship and offering prizes for meritorious candidates. There is absolutely no doubt that the candidates trained up in this technology will have a very bright future.

## Increasing opportunities.

The training to be imparted at the institute fully equips the trainees to take up a position of responsibility in the various branches of the industry. There are in this country, a number of luxury hotels and many medium catering establishments, snack bars, restaurants, ice cream bars, coffee bars, and other forms of institutional catering and feeding. With urbanisation and industrialisation catering establishments are increasing in large numbers. The development of adequate services for feeding the large and increasing number of workers engaged in industrial production poses a special challenge of considerable importance. Apart from these, there is urgent need to provide better and nutritive meals on a larger scale in hospitals, catering establishments attached to railways, shipping lines, government offices, undertaking rest houses, dak bungalows,



etc. Further there are new projects such as the Mid-day Meals Programme, that are being launched. Large numbers of trained men and women are necessary to meet the high standards to be maintained in all such feeding programmes and in the hotel industry.

#### **Name of the Courses and Duration.**

(i) *Three-Year Diploma Course in Hotel Management and Catering Technology.*

#### **Qualification :**

Minimum qualification for admission is a pass in the S.S.L.C. Examination of the Government of Tamil Nadu or an examination recognised as equivalent thereto by the State Board of Technical Education and Training, Government of Tamil Nadu.

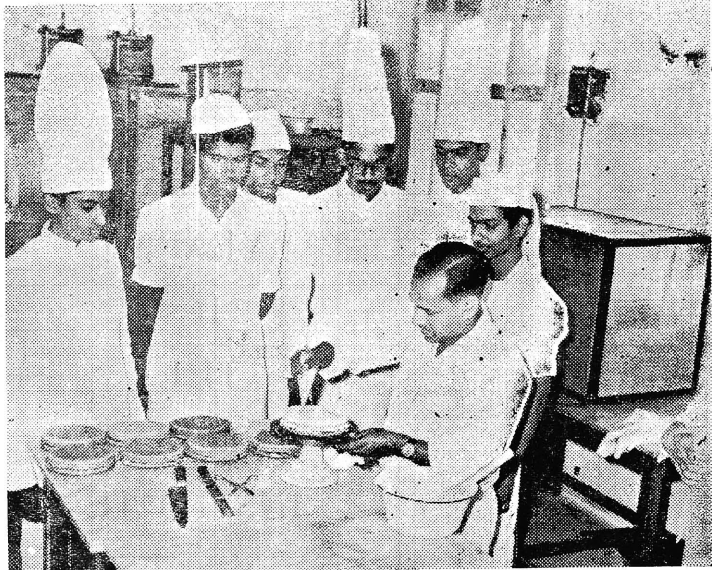
In respect of S.S.L.C. passed candidates from Kerala, Mysore States, etc., after ten years schooling, a pass in the final Pre-Degree University Examination in one sitting or Pre-University Examination is necessary.

#### **(ii) Craft Courses.**

##### **One-year duration.**

(a) *Canning and Food Preservation—*

A pass in S.S.L.C. or examination recognised as equivalent thereto.



(b) *Bakery and Confectionery—*

A pass in S.S.L.C. or equivalent examination or by selection from among those with experience in the Bakery trade having working knowledge of English.

##### **Six-month duration.**

(a) *Hotel Reception and Book-keeping—*

A pass in S.S.L.C. or equivalent examination.

(b) *Restaurant and Counter Service—*

A pass in VII standard or equivalent examination with working knowledge of English.

(c) *Cookery—*

A pass in S.S.L.C. or equivalent Examination or by selection from among those with experience in the trade having working knowledge of English.

All the above courses are open to men as well as women.

#### **III. Short Course (House wives) Part-Time Courses.**

(For Women Only.)

##### **13. Week duration.**

(a) *Cookery.*

(b) *Bakery.*

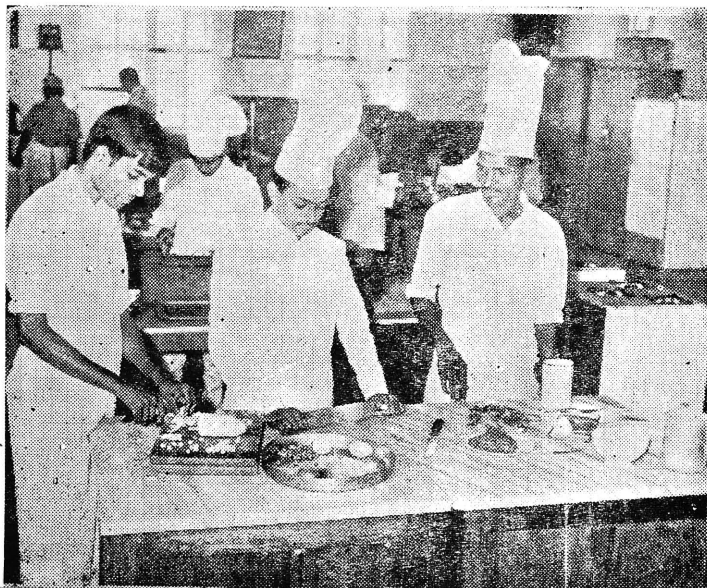
(c) *Canning and Food Preservation.*

Sufficient working knowledge of English to follow lectures and instruction in English.

There will be two instruction classes each of 3 hours duration per week per course.

Candidates will be admitted from all parts of the country, if found medically fit.

The medium of Instruction is English.



# THE NEW ROLE OF THE DISTRICT COLLECTOR



By

Dr. B. L. MAHESHWARI,

*Director of Research,  
Administrative Staff  
College of India,  
Hyderabad.*

The year 1972 marks the completion of the second centenary of the establishment of the office of the District Collector in India. The institution created by Warren Hastings, was primarily concerned with judicial Administration. Within a decade, the office was enlarged to include administration of revenue along with civil justice and magistracy. Despite early fluctuations of fortunes, the office emerged as a vital point in the administration of British India and it retained its basic character for the next 165 years though the powers of the officer increased appreciably.

It was only after Independence that the role of the District Collector underwent many explicit and implicit changes. Like the Indian tradition, new functions and structures have been superimposed on the old, often without a thorough examination of the implications of process.

The role of the District Collector thus, in respect of public administration in general and the district administration in particular has to be viewed in the context of the emerging situation. The district has remained the primary unit and the focal point of Indian administration, all the functions of government converging on it. It is here that the citizen comes in contact with the government. While the boundaries of districts, with few changes, have remained in tact, the nature of district administration has undergone important changes, especially during the last 25 years.

The Collector, being the king-pin of the district administration, has been regarded as the natural choice for all new programmes at the district level. In this process, his role has been continually redefined and yet there is not full agreement on its various dimensions, which may vary from State to State and even from district to district in the same State.

Two traditional roles of the District Collector were implicit in the title itself, namely the collection of revenue and maintenance of law and order. Different committees and commissions have argued from time to time whether the District Collector should have over-riding control over the police administra-

tion in the district and whether he should be concerned with judicial administration. By and large, there is agreement on his role in maintenance of law and order and his superiority over the Superintendent of Police. But the judicial work has been taken away from him in most States, divesting him of a part of his traditional responsibilities.

## Expansion of Responsibilities.

The expansion of governmental responsibilities in the areas of development and welfare has tended to expand his role and responsibilities. As a result, the office which was created essentially to administer the interests of the East India Company has come to become an important pillar of administration in free India. With the growing emphasis on developmental work, initially the District Collector became the chief development officer also at the district level, but it was soon realised that the arrangement was not satisfactory.

In the many institutional experiments, including Panchayati Raj, that have been made at the district level the emphasis has been on limiting the role of the Collector in development administration. Until only five years ago, it was generally argued that development administration should be the primary responsibility of the Panchayati Raj institutions and that the Collector should be responsible only for regulatory functions. Now the situation has substantially changed and the District Collector resumed the important role as head of the district development administration also.

If the district has to remain the unit of planning and development and the Collector's role as the Chief Executive of the district has to be reinforced, it will be necessary to place greater emphasis on development administration as part of the District Collector's role. Therefore, I feel that rather than excluding the Collector from development work, efforts should be made to harness this office for development. At the same time, he should be relieved of routine regulatory functions. We must remember that in spite of the changes which have taken place, the District Collector still commands high prestige and status both in the eyes of the district bureaucracy and the population. It is difficult to

exaggerate the powers of the District Collector. Traditionally, he had had wide discretionary powers and strong authority over his subordinates. Because of his pivotal position, when he shows a keen personal interest in a particular development programme, be it agricultural production, family planning or industrial development, the district bureaucracy works hard to achieve results. To some extent, of course, the intensity of his own interest depends on his perception of the priorities of his bosses in the State capital, but it also depends upon his understanding of the importance of different programmes. So, far, the Collector's role has been officially only one of co-ordination. If he is expected to deliver the goods in development, it is necessary that rather than being a mere co-ordinator he becomes the mobilizer of the district bureaucracy. (In Tamil Nadu the Collector is not only the agency for all Development Work but also Planning for the future; the routine Revenue administration is vested in the District Revenue Officer a parallel post.)

### IMPORTANT FACTORS.

Democracy and specialization are two of the most important factors which have influenced the role of the Collector in the post-Independant period. Largely because of the interplay of these factors, the role of the Collector has undergone major changes even while the exterior seems to have remained unchanged. For example, in the pre-Independence days, he had no competitor for power prestige in the district administration. So long as he enjoyed the confidence of his superiors, he could exercise almost unlimited authority. The introduction of representative institutions at different levels of our political system has, however, created alternative centres of power and prestige in our legislators and elected representatives.

Similarly, with the increasing emphasis on specialization, as represented by the specialist services, the District Collector who has traditionally been a member of generalist services like the I.C.S. and its successor the I.A.S. faces competition from other officers at the district and higher levels.

It is argued that men with long experience in various fields will bring the variety of experience and exper-

tise to bear on the work of development administration in the district. It is also necessary to match the personal skills and interests of the Collector with the needs of the district. For example, a district potential for industrial development should have as Collector a man who not only shares the same beliefs but also understands the dynamics of industrial development.

### OVER BURDENED.

It has generally been recognised, at least since 1905, that the Collector is over-worked. The typical District Collector spends long days of 12 hours' work, often without Sundays and holidays, particularly in the larger district. This type of routine leaves little time for thought, reflection and planning. Many institutional experiments have been tried out, such as the appointment of a Joint Collector and provision of additional staff. This did not succeed in reducing the Collector's work-load. His work-load can be reduced only if delegation of authority below the Collector is effectively carried out. There is also urgent need for the introduction of proper management practices so that he is enabled to spare more time and energy for innovative and developmental tasks. It is also necessary to make the job manageable. We should not go on adding new functions and responsibilities on the already over-burdened Collector. If too many things demand his attention some of them naturally get ignored. May be, the ones ignored are the ones more important.

### RADICAL DEPARTURE.

So far, there has been too much emphasis on the importance of a single person in district administration. This has been the source of many a problem. I feel that time has come now to consider radically different structures and styles of administration at the district level. Multiple official representation can make the district administration more rational. Then the Collector becomes only the first among the equals. Since the existing district administration is inadequate in the context of increasing number of development programmes, the new role of the Collector should be defined in relation to the expectations of the society from

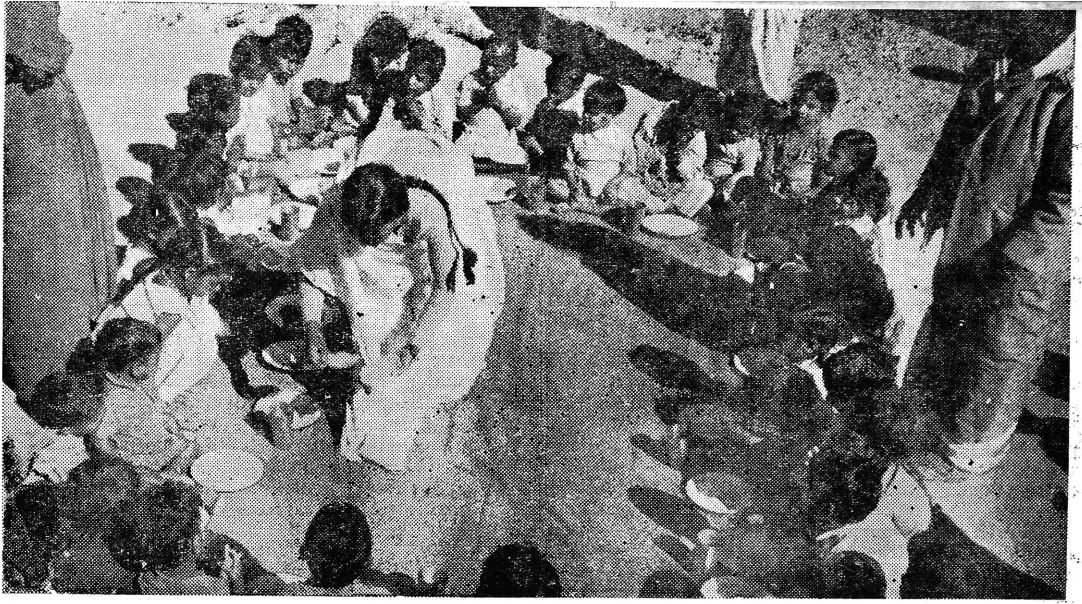
the administration. If he has to play a vital role in development, his role needs to be defined not so much in terms of duties and responsibilities or the power to write confidential reports on other district officers but in terms of areas which should receive his personal attention. I favour definition of the District Collector's role with emphasis on his contribution to development. The district administration has enough experience to handle the traditional problems of regulatory administration. This important office is rooted in history and has certain aura about it, not only for the citizens but also for the senior administrators. All the strength of the office should be harnessed to promote economic development and welfare.

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### Radio and Electronic Exhibition to boost the Trade.

All India Radio and Electronics Association consisting of nearly 1,500 members represented by Manufacturers, Distributors, Retailers and Technicians from all over India, has decided to hold an exhibition which will be held for a month commencing from February 2, 1973 in Madras. The Association has many achievements to its credit. The Association has succeeded in inducing the Government to grant an important licence for Rs. 2.5 lakhs for importing obsolete valves for old sets lying idle for a long time for want of these valves. These valves would be distributed equitably to its members. Similarly the Government is persuaded by the Association to grant another import licence for Rs. 6 lakhs which is expected to be received shortly for spare parts not available indigenously to service foreign tape recorders, record changers, etc., for equitable distribution to its members. The Association is thus offering many benefits and services to its members.

The Association is planning to hold a convention in the South after a lapse of more than ten years. The convention will lay special emphasis on the theme "self-reliance". To synchronise with this convention, All India Radio and Electronics Exhibition will highlight the past advancement made in electronics, trade, radio, television, refrigeration and industrial and domestic equipments. \*



## PERSPECTIVE PLAN FOR NUTRITION FOR 1972-84

Tamil Nadu is way ahead of other States in school nutrition with the mid-day meals scheme which is in operation in 30,603 elementary schools, catering for 18.2 lakh pupils for 200 days in a year. It is to be continued with improvements in the nutritive quality of the food and better nutrition education.

Malnutrition in the early years reduces the productive capacity of adults. Physically, they lack the energy and stamina which are essential for satisfactory work. Furthermore, malnutrition might lead to mental retardation in the young. Chronic and severe malnutrition in childhood increases the chances of children becoming poor readers and poor writers. This, in turn, may lead to defects in neuro-integrative functioning, school failure and subsequent sub-normal adaptive abilities. Malnutrition lowers community resistance to disease resulting in higher incidence of morbidity, which has extensive social consequences. Accident rates are higher among the mal-nourished groups, who tire easily and quickly, pathy, lethargy and lack of initiative are the common characteristics of poorly fed groups.

### People have to be told.

A solution to the problem of malnutrition is so urgent that it cannot wait upon a satisfactory level of economic growth. People have to be told about the types and quantities of food that they and

their children need and how to produce nutritive foods at minimal costs. Nutrition has a much to do with hoping for a better standard of life, for those at work or for others in the home or elsewhere as it has to do with making most of what there is.

Many people attempt to have more children than either they or society can afford in order to be sure that at least one or two will survive. The fear is well founded because infant and child mortality are still high in Tamil Nadu and in the country at large. If massive measures were taken to secure the survival of the first two children through better nutrition, parents might feel less impelled to provide against mishaps in their manner and would correspondingly be more receptive to the underlying aims and methods of family planning.

A long-range nutrition programme for the State will have to cater to the nutritional requirements of the following groups: (a) Children below 30 months; (b) Pre-school children, 2-1/2 to 6 years of age; (c) Pregnant mothers; (d) School children; (e) Adolescent boys and girls; and (f) Adults.

There are 7.9 million children below six years in Tamil Nadu. Of these, approximately 55 per cent subsist below the poverty line. This means the feeding programmes will have to cover nearly four million children among whom 1.72 million are likely to be below three years.

The first programme proposed is to feed pre-school children in the Kuzhandaigal Kappagams (Balwadis) integrating the efforts made under the Applied and other Schemes of the Women's Welfare Department of the State Government. This Nutrition Programme, CARE and Demonstration Feeding, Family and Child Welfare should cover all the 1,707 Kuzhandaigal Kappagams (Balwadis) functioning in the State with a uniform programme of feeding care and education, which will be based on the quantity of protein and calories to be administered daily; the weekly menus based on local foods; the cost of food, other overheads to support the cooking and feeding operations without reliance on voluntary contributions; and the simultaneous provisions for health care.

The next step will be the progressive expansion of the Kuzhandaigal Kappagams from 1,707 and 12,500 by 1984 with consequential or appropriate changes in menu and costs. These Kuzhandaigal Kappagams with 60 children each will cover 7.5 lakhs of children. The rate at which they can expand by 1984 is limited due to financial and human constraints. It is, therefore, proposed to reach the pre-school children through the existing primary school system which is well extended. This can be done by attaching pre-primary

A Prize Winning photo in 1972-73 competition.



sections to selected primary schools along with a meaningful 2-3 hour educational programme using the school facilities without disturbing the school programme itself. This strategy will cover 9.18 lakh children in 15,300 primary schools with 60 children each.

#### **Expectant and Nursing Mothers :**

Educational and feeding programmes for expectant and nursing mothers have to be organised together with health care and pre-natal and post-natal attention. The nutritional aspects of these groups will become the responsibility of the health sector when nutritionists are appointed and take up position.

Nutritional rehabilitation programmes are necessary to educate the mothers so that they can spot common signs of malnutrition among pre-school children and treat them by simple, low-cost, locally available and nutritive foods. Nutrition Rehabilitation Centres will arrange demonstrations to show people how nutritive diets can improve their children's health within four to six months and how children ought in fact to be fed. This will also become the responsibility of the health sector. To this end the programme will be integrated with that of family planning in the health sector.

#### **Long Term Programmes for Adolescent Boys and Girls :**

The nutritional requirements of the adolescent have received scant attention, except perhaps when the adolescent is also a mother. Yet boys and girls grow faster in adolescence than at any other time except in infancy and their nutritional needs are accordingly the greatest at that stage. They need more protein, calcium, iron, riboflavin and ascorbic acid than their adult counterparts.

Nutritional education programmes should also be organised for adolescent boys and girls at high schools, in training establishments and in work canteens.

Similarly a nutrition programme for adults needs to be planned as a long range effort. The demand for calories and nutrients, except vitamin A and iron for women, diminish slightly after the peak period of growth in adolescence,

while demands for protein, calcium, ascorbic acid and Vitamin A remain constant during adulthood. The nutritional status of an adult reflects his contemporary food habits, previous dietary history and is a pointer to his future health and efficiency. Poor eating in earlier years has residual and adverse effects on the body—some remediable, some lasting and others that get worse with time.

Statistics in India indicate that 60 per cent of the population are underfed. Nourishment to the cells and organs of the underfed must be sufficient to support the functioning of the body and its renewal. During 1964, more than 4.5 million people were treated for malnutrition in

must be kept well fed, for their own sake, for the sake of their families and in the interests of full national development. Nutritional programmes for all people should include nutritional education and demonstration.

#### **Education and Research :**

Nutrition education has in fact to start from early childhood. It has then to be continued through the primary, middle and secondary school years, adolescence and adulthood. In order to incorporate nutrition education in the school curriculum, suitably trained and motivated teachers are needed. Accordingly all colleges of teacher

**“A solution to the problem of malnutrition is so urgent that it cannot wait upon a satisfactory level of economic growth. People have to be told about the types and quantities of food that they and their children need and how to produce nutritive foods at minimal costs. Nutrition has much to do with hoping for a better standard of life for those at work or for others in the home or elsewhere as it has to do with making most of what there is”.**

hospitals and dispensaries and of these patients, 3,511 died. In planning an overall nutrition programme for Tamil Nadu, the per capita daily food requirements of adults as well as children need to be considered. The Indian Council of Medical Research has tabulated suitable kinds and quantities of daily intake of vegetarian and non-vegetarian foods, by sex and activity. The tables make useful references for planners of agricultural production and nutritional programmes. Although men are not so nutritionally vulnerable as their children or their child-bearing wives, they are important people who

education will offer a full course in nutrition education. Teachers already in position will receive short orientation-training during summer vacations utilizing existing nutrition bureaux, medical and home science colleges. All students in colleges will also be required to take a short course in nutrition. The available media of publicity—newspapers, magazines, cinema, the radio, films, posters, exhibitions, fairs and camps—which are currently in use for education in family planning, the green revolution, small savings and community development projects and campaigns will also carry the messages of popular nutrition and

\*health education to the masses. The job chart of all the messages of popular nutrition and health education to the masses the job chart of all extension and health workers in rural and urban areas will henceforth include the education of the families under their care in nutrition and health.

### Role of Diet in Treatment of Disease :

Nutrition education and the followup of patients need to be further emphasised in hospital work. It is, therefore, necessary to establish nutrition clinics and appoint dietician-cum-nutritionists at least in the district poly-clinic hospitals and poly-clinic centres and the curricula used for the training of medical and para-medical personnel need to be revised with an added orientation element from nutrition education.

Since nutritional norms cannot be progressively improved without supporting programmes for diversified and increased food production, processing and distribution, all the inter-related professions agriculture, animal husbandry and technology—must include nutrition education in their training programmes.

Research endeavours in the immediate future must become responsive to the need for alleviating hunger and malnutrition. The broad areas of end-oriented research should have a vital bearing on the proposed programmes.

Research work in different institutes\* has demonstrated that, by creating awareness in and motivating rural communities, effective programmes of nutritional rehabilitation could be worked by the village communities themselves, using local food resources. Such efforts must cover a wider spectrum and should be strengthened on a permanent basis.

Evaluation ought not to be a mere formality gone through at the term end of the programme, but should be so built into the operations that the programme is maintained at a steady and evenly successful pace. Evaluation must

form part of the feeding programmes and the extensive expertise available must be utilised for this purpose. Evaluation data must include an analysis of statistics from health, agriculture, trade and commerce employment and those gleaned from interviews, visit's records, reports, observation of markets and eating places, others bearing on changes in attitudes and food practices ; anthropometric, dietary and clinical data, training of personnel and number of the population served.

### Inter-departmental Collaboration :

Nutrition is a multi-faceted discipline, intimately related to agriculture, animal husbandry, fisheries, health, education, rural development and social welfare. All the departments have thus a vital role to play in nutritional activities and furthering the goals of the programme. To this end, it is recommended that a meeting be held at the Ministerial level of the following departments at periodic intervals. The meetings can be very purposive and fruitful if they come in the wake of a specific programme of action for each department. For instance the Health Department should—

1 (a) employ dieticians in large hospitals ;

(b) map out the geographical areas where malnutrition is highly prevalent and organize ameliorative measures on an emergency footing ;

(c) impart a nutrition bias or orientation to the training programmes of medical and para-medical personnel ;

(d) enforce more stringently food laws like the Prevention of Food Adulteration Act, the Catering Establishments Act ;

(e) organize a " Nutrition Week " in association with campaigners for related subjects ; for example family planning ; and

(f) produce films on health education ; audio-visual and mass-media programmes on nutrition for intensive and extensive communication ;

### 2. The Education Department should—

(a) introduce nutrition studies in the curriculum at all levels of education including that for teacher training ;

(b) scrutinize science textbooks for nutrition topics, check their authenticity and bring out new books where necessary ;

(c) increase the number of children fed under the midday meals programme, interest college planning forums, social service associations and national service corps in the programmes and secure their assistance for raising funds.

(d) organize sale of quality milk to hostels and canteens on a no-profit basis ;

(e) employ dieticians in large catering institutions like hostels ;

(f) produce films on nutrition ;

(g) maintain cumulative health and nutrition records for school-children ;

(h) allot marks weighted for the health and nutrition status of students ; and

(i) urge colleges and Universities to take up the study of nutrition projects.

### 3. The Rural Development Department should—

(a) give in-service training in nutrition to all functionaries and village-level workers in particular ;

(b) organize intensive nutrition drives in conjunction with campaigns for family planning small savings and others ;

(c) organize competitions in food production, food storage, cooking and food ;

(d) use mobile nutrition units for nutrition education ; and

(e) establish community food preservation and baking centres.

### 4. The Social Welfare Department should—

(a) train all workers in nutrition ;

(b) organize nutrition education activities in Mahalir Manrams ;

(c) organize competitions in food production, food storage, cooking and food preservation ; and

(d) emphasise nutrition in all welfare and relief activities.

should— Department

(a) formulate production plans and targets based on nutritional needs in collaboration with other departments ;

(b) increase quality along with quantity in food production by giving price incentives to farmers as nutrition<sup>a</sup> premia ;

(c) test new varieties and strains for nutritive ;

(d) appoint nutritionists on the governing bodies of Agricultural Universities, Councils and Boards ;

(e) promote kitchen gardens, poultry and livestock units and pisciculture ; and

(f) supply milk, milk products and eggs at concessional prices to school canteens.

### PREVENTION OF FOOD ADULTERATION

The State Government has decided to establish a Food Council Cell with adequate staff to prevent food adulteration on a large scale. A consolidated scheme has been submitted to the Government for the appointment of food inspectors who will be attached to district health officers in order to supervise the work of all the food inspectors in their jurisdiction. In addition to sampling work, they will undertake a full-time food inspectors nutrition work. They will besides, be responsible for (1) nutrition and diet surveys on a certain number of fixed days in the week, (2) the collection of food samples and (3) the supervision of the food sampling work done by the sanitary and health inspectors. There is, therefore, need for the post of full-time supervisory food inspectors at the district level. They will also

oversee the work of "food inspectors" in municipalities and their work will be co-ordinated at the apex by their gazetted personal assistances. His post which has a distinct nutrition bias has already been sanctioned and he will co-ordinate the work of all the functionaries in the field of food sampling under the Prevention of Food Adulteration Act. He will also administer the maternity and child health feeding programmes. This staffing pattern will ensure a co-ordinated approach to food and nutrition in the State as a whole.

### REGIONAL NUTRITION LABORATORIES.

Two regional nutrition laboratories will be started at Thanjavur and Madurai and they will serve to improve the quality and quantity of sampling and testing work and to upgrade in turn the nutritive quality of chosen diets in the various regions of the State. The Joint Director (Nutrition) will control nutrition and survey work in the Directorate of Health Services and he will be assisted by nutrition officers attached to the two laboratories and by the health officer who will head the Food Control Cell. The data from the nutrition surveys will be processed by the Central Nutrition Bureau in the Directorate for the purpose. It will have attached to it a State Unit of the National Nutrition Monitoring Bureau of the Indian Council of Medical Research.

A proposal to start two regional nutrition laboratories at Thanjavur and Madurai has also been included to boost the sampling and laboratory work.

A Joint Director (Nutrition) will be in over all charge of the above work at headquarters and he will be assisted by the Nutrition Officer

attached to the nutrition laboratory and the health officer in charge of the Food Control Cell which proposal is under the consideration of the Government; the staff proposed for the Food Control Cell will look after the office work connected with the above scheme.

*Food, Meat, Milk and Market Sanitation:* Food handlers will be screened for carriers and only persons who are free from communicable disease will be licensed to handle food. Food storing perishable food, coldstorage facilities will be organised.

Hotel restaurants and eating shops require proper checks to avoid food poisoning. Areas of habitual food adulteration need to be identified and persons responsible for adulterations penalized in an exemplary manner.

*Meat Hygiene :* Suitable type designs for slaughter-houses will be prepared by the local bodies with the help of the Health Department. Slaughtering of animals outside licensed slaughter houses will be effectively prevented and defaulters penalized.

*Milk Hygiene :* Healthy milkmen, health cows and proper containers, adequate storage facilities and efficient distribution will be areas requiring immediate attention. All milk-vendors will be licenced and they will sell their milk only at depots notified by the municipalities. Wherever dairy farms exist, milk collected from the vendors (later to be chilled and processed) will be sold within the farm premises.

*Market Sanitation :* The prevention of over-crowding in markets, restriction on goods that may be sold, a working separation of perishable goods from not susceptible to putrefaction offer necessary and further scope for local planning initiative and public health regulation

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# MINERAL EXPLO- RATION IN TAMIL NADU

In Tamil Nadu, with increasing industrialisation and expanding horizon of mineral trade, mineral exploration has received an impetus and important sectors of the mineral economy have registered steady progress. As far as the mineral production is concerned, Tamil Nadu is emerging as an important State despite its deficiency in key minerals.

*Position prior to 1957 :*

Prior to the year 1957, mineral production in the state was quite unimpressive. In 1957 mineral production contributed an insignificant amount of 0.1 per cent to the net output of the State. The value of minerals produced in the State formed 1.3 per cent of the value of India's mineral production and gave Rs. 0.69 worth of mineral output per capita as compared with Rs. 2.82 in India.

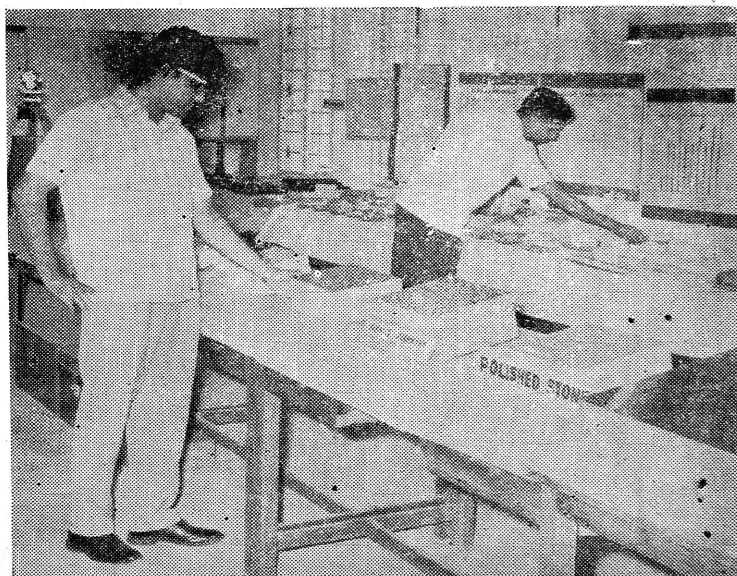
The deficiency of minerals in the State was even more striking during this period in the case of metallic ores and industrial fuels. The bulk of mineral production consisted of 50 per cent salt, 20 per cent of limestone, 11 per cent of magnesite, 9 per cent of ilmenite and 6 per cent of gypsum. The lack of production of any metallic ore and industrial fuel had been a serious set back to the industrial development of the State. For this reason, mining as a source of employment was relatively

unimportant in the State. Employment in 1957 in all mining operations including extraction of common salt from sea was 49,000 or about 5 per cent of the working force in non-agricultural occupations.

## FORMATION OF GEOLOGY BRANCH.

In order to carry out more detailed geological mapping and prospecting of areas which are mineral bearing, the State Government started the Geology Branch of Industries Department in 1957. The unit consisting of a retired Superintending Geologist from the Geological survey of India and two Assistant Geologists were asked to carry out prospecting and detailed surveys of minerals. The need for expanding the Geology Branch was soon felt and the Government spared no effort to expand the unit, by appointing another Geologist from the Geological Survey of India. The Geology Branch, during 1964, had on its staff 16 officers and 12 Technical Assistants besides a sufficiently large number of chemists. The Chemical and Analytical Laboratory attached to the Industries Department had undertaken the work of analysing, every year, hundreds of samples minerals, rocks, ores and water collected by the Geologists from different parts of the State. Efforts were taken to secure enough

Exhibits of ornamental polished stones of various types found in Tamil Nadu.



## A RECORD OF ACHIEVE- MENTS



drills for purposes of drilling up to 2,000 feet in hard rock formations and also for the construction of tube wells wherever the ground-water conditions appeared favourable.

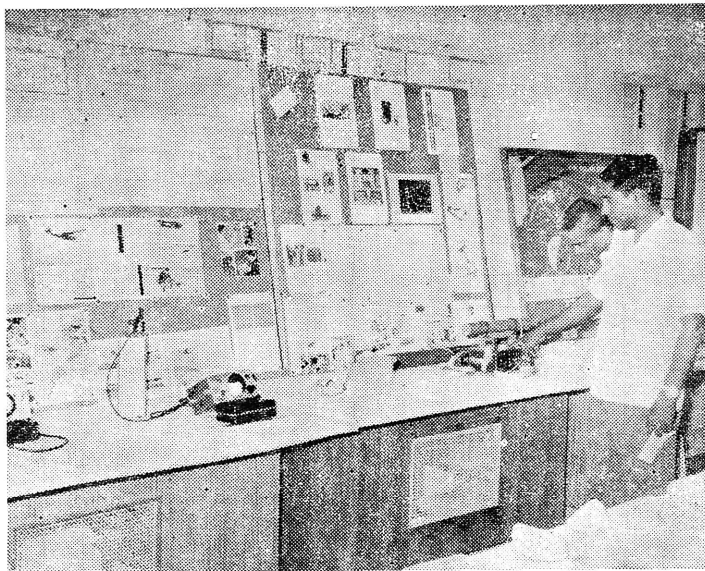
### EXPLORATIVE ACTIVITIES OF GSI, AEC AND ONGC.

It is gratifying to note that the three organisations viz., Geological Survey of India, Oil and Natural Gas Commission and Atomic Energy Commission contributed their maximum for the exploration activities in the Mineral sector in Tamil Nadu concurrently.

### ACTIVITIES DURING SECOND PLAN PERIOD.

During the period from 1957 to 1961, the major items of geological work carried out included (i) detailed prospecting work on the bauxite deposits of Shevroy hills, Salem District. (ii) prospecting work on the bauxite deposits near Elada, Kotagiri, Boradai and Dodhabetta in Nilgiri district and (iii) investigations of ground-water resources in the Avadi-Villivakkam area near Madras. Apart from these, mineral surveys for pyrite, in North Arcot district, gypsum (Tiruchirappalli district) and graphite (Tirunelveli district) were carried out in detail. Because of these activities, the share of Tamil Nadu in the All-India Mineral Production in terms of value had risen to 1.7 per cent.

X-ray diffraction analysis for minerals—T.M.D.P. laboratory.



Exhibits of modern instruments for mineral exploration.

### ACTIVITIES DURING THIRD PLAN PERIOD.

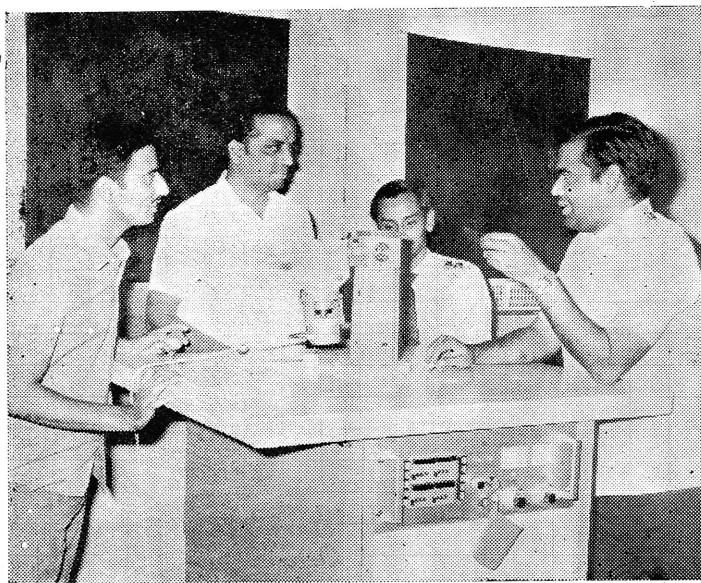
The details of geological work carried out during the Third Plan period (1961-65) are summarised below. An outlay of Rs. 30.31 lakhs was envisaged in the plan period:

(i) Detailed investigation of the iron ores of Kanjamalai and Godu-

malai near Salem was carried out in connection with the setting up of a steel plant utilising the iron ores of Kanjamalai and the lignite from Neyveli. The investigation included large scale mapping and systematic sampling. Further work was taken up in connection with the project by the geological personnel of the Neyveli-Salem Steel Project set up by the Government of Tamil Nadu. This included sampling, drilling, experimental mining, audit work and the preparation of all geological data on the iron ores of Kanjamalai. Further the limestone deposits in the Salem District were examined in detail to assess their suitability as flux in the iron and steel industry.

(ii) Another major achievement was the detailed examination of the limestone deposits in the Ramana-nathapuram, Madurai and Tiruchirappalli districts in connection with the utilisation of the deposits for setting up cement plants. As a result of these surveys, the total limestone reserves suitable for cement manufacture had been estimated at about 200 million tons. This resulted in the setting up of three cement plants—two in the private sector and one in public sector.

(iii) Detailed prospecting of various promising deposits of Bauxite was undertaken. This resulted in the discovery of Bauxite with reserves of 7.5 million tons and



led to the setting up of aluminium plant at Mettur Dam by Tiruvalargal MALCO with a capacity of 10,000 tonnes of aluminium ingots per annum. This is now being expanded to produce 20,000 tonnes of aluminium ingots per annum.

(iv) Discovery of Gypsum deposits having reserves of 2 million tonnes suitable for meeting the additional requirements of the cement plants in the State.

(v) Graphite deposits with reserves of about 2.7 lakhs tonnes suitable for the manufacture of crucibles were discovered.

(vi) Massive Sillimanite and Sillimanite bearing gneiss with reserves of about 4,000 tonnes was found and is now being successfully exploited by a private firm.

(vii) The refractory clay occurrences in South Arcot district were examined in detail for exploitation and use in the Government Ceramic Unit at Vriddachalam. The total reserves have been estimated at well over 6 million tonnes.

(viii) Quartz and Felspar deposits having a reserve of about half a million tonnes to be used in the manufacture of ceramic-ware were located.

(ix) Mineral surveys were carried out for magnesite, baryte, steatite, corundum.

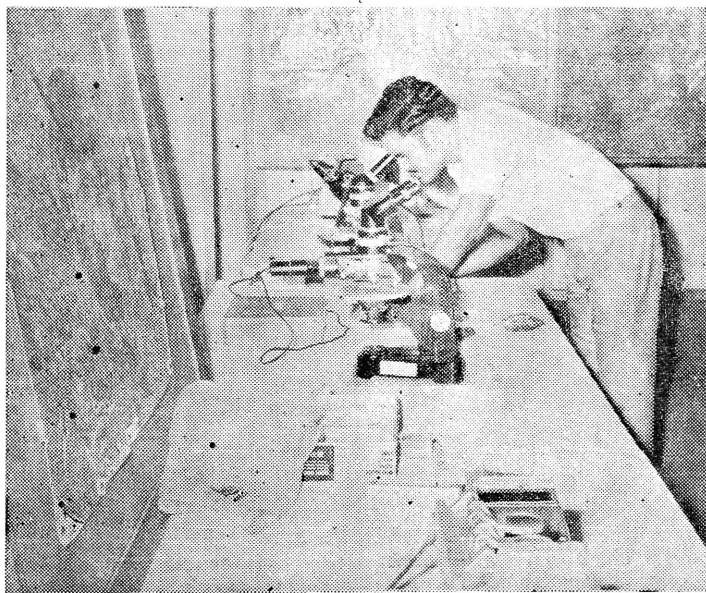
(x) Investigation for Vermiculite occurring near Tirupattur in

North Arcot district proved to be promising. Thirty-five trial pits were opened of which 25 showed the presence of vermiculate to a depth ranging from 2 to 4 metres. Good quality vermiculate with an expansion ratio of 1 : 15 occurs up to 17 per cent of the total rock matter. It is estimated that 1.93 lakh tonnes of vermiculate is likely to be available.

The upward trend in the value of mineral production in Tamil Nadu continued in the III Plan period.

The total value of mineral production in the State reached the all time high of Rs. 106.8 million in 1965 as against Rs. 79.9 million in 1964, showing a significant increase of about 34 per cent. The increase in value was mainly due to the phenomenal increase in the output of lignite. The rise in the output of limestone was also a contributory factor towards the increase in the total value of mineral production in the State. As a result the share of Tamil Nadu in the All-India mineral production which stood at 1.7 per cent in terms of value shot up to 3.1 per cent, and the State reached a position of 8th rank among the States in the value of mineral production. Lignite, limestone, salt, magnesite, gypsum, bauxite, ilmenite are the chief contributors. Compared to 1960 the output of minerals rose in terms of quantity by nearly 40 points (Table IV).

Microscopic study of minerals kept in the Exhibition.



The trend in the value of mineral production in Tamil Nadu during 1956-1965 is presented in Table below. The value is inclusive of the value of the output of "Minor Minerals."

Year.	Value. (Rs. '000).
1956.. ..	13,665
1957.. ..	15,940
1958.. ..	16,679
1959.. ..	16,564
1960.. ..	23,414 (R)
1961.. ..	43,328 (R)
1962.. ..	52,596 (R)
1963.. ..	70,113 (R)
1964.. ..	79,868 (R)
1965.. ....	106,799

(R) = Revised.

Table below shows the Index Number of mineral production in Tamil Nadu during 1960 to 1965 (Base 1960=100).

Year.	Index.
1960.. ..	100
1961.. ..	103.6
1962.. ..	110.0
1963.. ..	119.5
1964.. ..	133.4
1965.. ..	139.6

Activities during the Fourth Plan period:

The Fourth Plan programme is based on the groundwork prepared during the previous plan periods. During the three annual plan periods 1967, 1968 and 1969, several systematic mineral surveys were undertaken in hitherto unsurveyed areas especially in the hill tracts of Tirunelveli, Madurai and Coimbatore districts. In the beginning of the IV Plan period, detailed investigations, including drilling of the earlier reported occurrences of minerals like limestone, graphite, clays and iron ores were taken up with a view to test the quality and assess the quantity of the reserves. This has resulted in proving about 30 million tonnes of limestone in parts of Sattur and Srivilliputhur taluks of Ramanathapuram district and culminated in the establishment of the Tamil Nad Cements—a State owned undertaking. Likewise, the high grade limestone (crystalline and sedimentary types) occurring in parts of Salem and Tiruchirappalli districts were reassessed and the areas were recommended for reservation for the proposed Salem Steel Project. A sizeable deposit of massive

sillimanite and cordierite-sillimanite gneiss was located in Kulithalai taluk of Tiruchirappalli district and is now being exploited by Thiruvallur Southern Mines and Metals. About 17,000 tonnes of graphite similar to those around Sivaganga of Ramanathapuram District were proved near Thirumangalam in Madurai district. Investigations were carried out on the earlier reported occurrences of graphite near Kuruvikulam in Sankarankou Taluk of Tirunelveli district and also on the occurrences near Kallupatti in Usilampatti taluk of Madurai district. During the period under review, a sizeable deposit of dolomite near Kadalai in Kovilpatti taluk of Tirunelveli district with a reserve of about two million tonnes was located and the same has been reserved for use in the Steel Plant. In 1970, Tamil Nadu ranked seventh in the value of mineral production among the States in the Indian Union.



Mineral Exhibition of keen interest to visitors.

#### *Commissioning of UNDP :*

A very important event in the geological activities of the State is the commissioning of Tamil Nadu Mineral Development Project in April 1968 under the auspices of United Nations Development Project. According to this programme the experts from United Nations undertook a sophisticated mineral survey, including air-borne geophysical survey on select areas in the State and also in the hilly terrains where the usual field investigation poses a problem. Under the terms and conditions, the State Government had contributed a sum of Rs. 34.62 lakhs for a period of 3 years from 1968-71 while the United Nations Development Programme contributed a sum of Rs. 78.79 lakhs making a composite scheme for Rs. 105.09 lakhs. An area of about 17,000 sq. kms. in parts of North Arcot, South Arcot and Dharmapuri and Salem districts was taken up for extensive and intensive mineral exploration by United Nations Development Programmes. As a result of the survey and ground follow-up work, a huge reserve of iron ores in Kavuthimalai, R.F. in Tiruvannamalai, North Arcot District, was located. As a preliminary finding the experts have estimated the reserves of iron ores to be of the order 140 million tonnes with an iron content varying between 40 and 44 per cent. Detailed prospecting is being continued and the State Government have now requested

the United Nations Development Projects to take up a special feasibility study with a view to set up a concentration plant based on the available ore reserves.

Another important discovery is the location of Radio-Active and rare mineral deposit of pyrochlore containing uranium, niobium and tantalum elements in Sevathur area, Tirupathur Taluk that has led the way for further intensive exploration for these rare minerals by the Atomic Energy Commission. The United Nations Development Programmes also aided in proving the exact reserves of Vermiculite deposits associated in the rare minerals group of rocks (Carbonatite) and estimated those to be of the order of 3.5 lakh tonnes. As beneficiaries, the project received from the United Nations Development Programme costly equipments such as Atomic Absorption Spectrophotometer, Induced polarisation for geophysical survey, Electro-Magnetic equipments, Gamma Ray Spectrometer and Ore Dressing Equipment, which resulted in the establishment of more modern geochemical and ore dressing laboratories. The United Nations Development Programmes also provided training of counterpart personnel in modern and sophisticated surveys in photo-geology, geophysics, geochemistry and field geology as well as training of a few officers overseas in the above sophisticated fields of geological exploration.

#### *II phase of UNDP :*

As the Project area during the I phase was restricted to a few northern districts in Tamil Nadu, the hitherto neglected hilly tracts in Salem, Coimbatore and Madurai Districts are proposed to be taken up for survey under a Second Phase for which assistance is being sought from the United Nations Development Programmes. The general objective of the II phase of the project is to conduct an intensive exploration survey for new mineral deposits over an additional area of 13,000 sq. kms. and to complete development and economic evaluation of deposits in the present project area. The II phase will produce initially needed basic technical data on the area studied, and provide useful assistance to the surveying of other natural resources for development activities. A detailed investigation to find out the possibilities of further occurrences of phosphates (apatite), rare earths, iron ores, base metals, chromite, etc., is envisaged. Sophisticated surveys such as photo-geological interpretation of structures, geophysical and geochemical reconnaissance are proposed to be conducted in the second phase. The proposals are under the consideration of the U.N. and the project is expected to be completed by the end of Fourth Plan period.

# MINIMUM WAGES TO HANDLOOM WORKERS— AN EXPERT COMMITTEE FORMED

## ALSO FOR SILK WEAVING INDUSTRY.

The Government have already constituted a Committee for advising the Government regarding the minimum rates of wages to be fixed for the employment in Handloom Weaving Industry under the Minimum Wages Act, 1948. The Government have now constituted a separate Committee for advising the Government regarding the fixation of minimum rates of wages for employment in Handloom Silk Weaving Industry.

employees sides has been asked to submit its report urgently so that the Government can fix minimum rates of wages for the employees employed in the Handloom Silk Weavers Industry expeditiously.

After the minimum rates of wages are fixed under the Minimum Wages Act, 1948 the employers will be bound to pay wages to the employees employed in the Handloom Silk Weaving Industry which should not be less than the minimum rates of wages so fixed.

*The following are the members :*

### *Independent members.*

1. The Deputy Commissioner of Labour (Welfare), Madras-5. Chairman.
2. Assistant Director of Statistics (Market Intelligence), Madras-6. Independent member.

### *Employers' Representatives.*

3. Thiru C. P. Ramadoss, Partner, Sri Mangalambika Silk Throwing Factory, Kumbakonam. Member.
4. Thiru N. K. Subbaraya Chettiar, Sri Lakshmi Saraswathi Silk Throwing Factory, Arni. Member.

### *Employees' Representatives.*

5. President, Kanchepuram Handloom Weavers' Union. Member.
6. The Vice-President, Kudanthai Pattu Nesavu Thozhilalar Sangam. Member.

The Committee which consists of independent members, and representatives from both employers and

## MINIMUM WAGES TO HAND- LOOM WORKERS COMMIT- TEE FORMED.

The Government have constituted a Committee under the Minimum Wages Act, 1948 to hold enquiries and advise the Government regarding the fixation of minimum rates of wages for employment in handloom weaving industry. The Committee which consists of independent members and representatives from both employers and employees has been asked to submit its report urgently so that the Government can fix minimum rates of wages for the handloom workers expeditiously.

*The following are the members :*

### *Independent members.*

1. The Deputy Commissioner of Labour (Welfare), Madras. Chairman.
2. The Assistant Director of Statistics (Market Intelligence), Madras-6. Independent member.
3. Assistant Director (Handlooms), Office of Director of Handlooms and Textiles, Madras-1. Member.

### *Employees' Representatives.*

4. Thiru T. S. V. V. Thiagarajan, Director, Mettupatti Kaithari Javuli Urpathiyalargal Sangam, Madurai district. Member.
5. Thiru R. Venkatachalam, President, Coimbatore Handloom Cloth Manufacturers' Association. Member.
6. The President, Madurai Mahalakshmi Weavers' Co-operative Products and Sales Society Limited, Kanpalayam, Madurai. Member.
1. Paramathi Thiru K. Shanmugam, Vadivel Nagar, Coimbatore Road, Karur. Member.
2. Thiru S. Duraiswami, M.L.A., General Secretary, Coimbatore District Dravida Panchalai Thozhilalar Munnetra Sangam. Member.
3. Thiru S. G. Lakshminarayanan, President, Paramakudi-Emaneswaram Handloom Weavers' Sangh, Emaneswaram, Paramakudi. Member.

After the minimum rates of wages are fixed under the Minimum Wages Act, 1948 the employers will be bound to pay wages to handloom workers which should not be less than the minimum rates of wages so fixed.



# TANSI'S SEVENTH ANNIVERSARY

**T**HE Tamil Nadu Small Industries Corporation Limited *Tansi* for short was the outcome of the pioneering spirit of the Tamil Nadu Government and started seven years ago. It has justified itself as a most fruitful venture comprising 53 units and turning out industrial and consumer goods, even as new lines of manufacture are being introduced simultaneously. No wonder it is today the largest enterprise of its kind in the public sector.

Seven years is a short period in the life of a consumer oriented concern under the Government. Within a span of seven years, the Tamil Nadu Small Industries Corporation has given a commendable performance not only in diversifying production but also developing new products and services on commercial lines. The price competitiveness and performance of the products enjoy the confidence of the public and the industry.

The variety of its production lines shows the immense possibilities of the small scale sector. Apart from providing employment to thousands and supplying essential goods and services to the industrial and domestic consumers it has also helped industrialisation of the semi-urban areas by the dispersed location of its units.

*Tansi*, in the course of its growth, has had to grapple with several problems, the most important among them, skilled workers. Today it proudly claims to have built a reservoir of skilled technicians who not only serve the various units of *Tansi*, but have been drawn upon liberally by the private sector, too. Though to start with, the enterprise had to depend on foreign technicians to get going the more sophisticated lines of manufacture, it was only for a brief while, and before long local talent had been hunted and trained for use.

As a government organisation, *Tansi* has been in a position to garner raw materials without much difficulty and its products are now

being marketed not only in the country but also abroad. *Tansi* produced leather (finished material) has found its way all over Europe while its transmission towers and stoneware pipes are being marketed in Kuwait and Ceylon. At home, *Tansi*'s main customers are the Central Government departments like the Railways, the Defence Services and the P. & T. and Public sector agencies such as the H.M.T., B.H.E.L. and the shipyards in addition to several major industries in the private sector.

*Tansi* has elaborate plans to come out with a 'moped' the two-wheeler for the common man in the urban and rural areas. Mopeds are already on the Indian roads, but these are being produced with

Division, one at Mettur Dam and the other at Ambattur to undertake the design for heavy structures and fabricate the same to acceptable specifications. These units contribute about a quarter of the total production of *Tansi*.

*Tansi* Structural and Galvanising Works, Mettur Dam, possess a galvanising bath, the largest in the South. Besides, it has a well equipped structural shop. This unit has specialised in the manufacture of towers which have been provided to many of the States in India. These towers were also exported to Kuwait and the second order is now under execution.

*Tansi* Structural Works at Ambattur have done some outstanding works of complicated nature.

*Tansi* has a site shop at Vizag functioning for the past three years fabricating the structural requirements of Hindustan Shipyard. Our site workshop at Richy is an

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Within a span of Seven years, the Tamil Nadu Small Industries Corporation has given a good account of itself not only in diversifying production but also developing new products and service on commercial lines. The price competitiveness and performance of the products enjoy the confidence of the public and the industry. Thus it has justified itself as a most fruitful venture:

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foreign collaboration. The *Tansi* moped will be 100 per cent indigenous, designed and produced locally, and it will be a low-cost vehicle to suit the middle-class budget. It will run on petrol-50 kms. per litre-and even when the gas runs out, the rider would have no reason for despair because the vehicles could be pedalled to its destination. The first moped will roll out of the lines in April 1973 and the production will be ultimately increased to 30,000 units per annum from the seventh year onwards.

There are 52 Small Scale units under this Corporation and of these, thirteen are situated in Madras and the rest in the districts. There are two units in the Structural

ancillary to Bharat Heavy Electricals, Tiruchirappalli, *Tansi* has recently completed the structural works for H.M.T. at Hyderabad.

In the Ceramic Division, the Ceramic factory at Vridhachalam manufactures all types of 'sanitary-ware' besides insulators and crockeries. Stoneware pipes manufactures by another unit at Vridhachalam are in accordance with Indian Standard specifications and they are recognised as one of the country. These pipes are also now under export to Ceylon. *Tansi* Glasswares at Guindy produces specific glass apparatus required for educational institutions besides milk bottles, B.T. bottles

and various other industrial glass equipment.

*Tansi Tannery* in the Leather Division of the Corporation has won international reputation in World Leather Fairs. Situated at Vinnamangalam (North Arcot District), this unit produces finished leathers which are also exported to various European countries. *Tansi Tannery* also offers raw materials to the three units at Perambur and Pallavaram intended for manufacture of leather goods. These leather works manufacture a variety of goods, such as fancy bags, suitcases, belts, shoes and chappals in addition to web and canvas items. The requirements of State Police, Home Guards and Transport Corporations are met with by these units. Certain Public Sector projects such as B.E.L. and H.M.T., Bangalore, B.H.E.L., Tiruchirappalli and Hyderabad have also come forward to meet their needs with the products of the leather units of Tansi. Apart from the above there is a wool processing centre at Vinnamangalam which is exporting wool to Australia.

Manufacture of light engineering products is undertaken by ten engineering works owned by Tansi. Line materials to Electricity Boards, requirements of private agriculturists, local bodies and others are met by these units. In addition to these units, Tansi owns Fabrication Works at Vellore, Palani and Rajapalayam for bringing out quality steel furniture of all kinds. Hospital furniture manufactured by these units are supplied to State and Private Hospitals and Nursing Homes.

Manufacturing of standard and non-standard items of wooden furniture are undertaken by *Tansi* in the Furniture Works at Guindy and seven other centres in the districts. Departments and educational institutions of the Government get their demands met by these units. Besides, the units have also penetrated the private market offices in accordance with the preference of the customers.

Tansi Tool Rooms offer services in Guindy, Ambattur and in four district centres. They manufacture press tools, jigs, forging dies, fixtures and special gauges required for various types of industries.

In the field of Foundry and Forgings, Tansi has secured a pride of place. Simple as well as specialised castings including various items of pipes and specials are undertaken by the four foundries. The two forging works are located at Guindy and Coimbatore. These units undertake light forgings such as those required for oil engines, cycles and two-wheeler motor vehicles. Forgings required by other industries are also undertaken against orders.

#### FRIEND OF AGRICULTURISTS.

Tansi is a great friend of the Agriculturists too. Tansi Farm Implements, Tiruchirappalli, manufactures various types of ploughs, green manure trawlers, buck scrapers, groundnut decorticators and similar other items. This unit has also developed Tractor Trailers. The Brass and Engineering Works at Kumbakonam produces one of the best agricultural dusters and sprayers in the country. This unit also undertakes fabrication of steel windows, doors, ventilators, brass hinges and bolts.

There are seven special purpose units under Tansi. It's Die Casting Unit at Guindy is concerned with die-castings of non-ferrous alloys like zinc, aluminium and copper. Energy meter components, calculator components, components for speedometer and other dash board instruments are manufactured in this unit. Tansi Pressings and Machine Shop at Guindy is engaged in the manufacture of defence requirements of precision components. TANSI Enamelled Wires at Guindy has gained popularity for its products of enamelled and D.C.C. wires. Tansi Electrical Works, Guindy, renders servicing jobs for

motors and other electrical equipments. A small printing press under Tansi meets the stationery requirements of public sector enterprises and departments. TANSI Lock and Engineering Works, Dindigul, has specialised in the manufacture of locks intended for railway coaches. Steel bunks made in this unit at Dindigul are used by the dairy units of Madras, Madurai and Coimbatore for distribution of milk to the public.

The four sales centres established by TANSI, two at Madras and the others at Madurai and Coimbatore promote sales of the product manufactured by the production units in addition to the various stockists and agents.

A new unit is being set up in the developed plot estate, Kappalur (Madurai) to cater to the demands of standard and non-standard items of wooden furniture in the Madurai and Ramanathapuram regions.

In keeping with its trend of modernisation, TANSI will be shifting to a very modern buildings opposite its present Sales Emporium on Mount Road to facilitate its expanding activities. TANSI is dedicated to the small industries but its horizons are vast and unlimited where very growth will be recorded like the glitter of the smallest star.

Sincere and hard work of the employees at all levels and the continued patronage of its customers have brought the turn-over of the Corporation from Rs. 4 crores in 1965-66 to Rs. 8.81 crores in 1971-72. TANSI employs more than 6,000 persons and offers apprenticeship to 120 technically qualified persons a year.

Though *Tansi's* record has been one of gradual progress from the very start, it has received added impetus in recent days as a result of which it was poised to achieve a 25 per cent increase in its turn-over by March 1973.

IN GOVERNMENT MUSEUM

# THE CHILDREN'S SECTION

## A CYNOSURE OF Younger Generation

The Children's Section in the Government Museum is of recent origin but has succeeded in arousing the interest of the many young visitors to the museum. At present, the collection includes, among others, a series of life-like models (reduced to scale) of a selection of sixteen extinct animals that dominated this earth in the past geological ages. These are exhibited in the form of suitable dioramas, so as to present them as far as possible in their natural settings with the contemporary vegetation painted in the background.

A series of attractive enlarged models illustrating the internal structure of the earthworm, fish, frog, garden lizard, pigeon and rabbit, a working model illustrating the circulation of blood in the



human body and enlarged dissectable models of the human heart and the human eye, have also been exhibited with adequate labels so as to make some of the basic lessons in animals and human biology vivid to the children.

Another group of exhibits which is expected to arouse the interest of children, especially of the lower age-groups, in people of foreign lands, is a set of twenty-nine dolls of different sizes, dressed in the national costumes of Yugoslavia. These were presented by the Yugoslavia Cultural Mission which visited the museum in 1953. A number of interesting objects of everyday use belonging to American Indians,

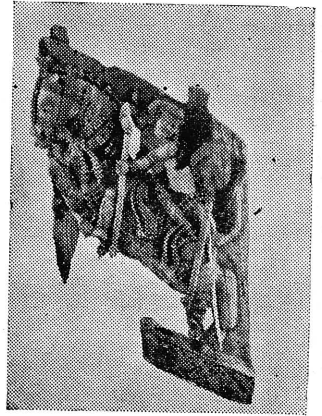
including a pair of beautiful moccasins of exquisite workmanship and a two piece dress worn by the American Indian children also form part of our material collected from foreign countries specially for exhibition in the Children's section.

A set of thirteen dolls dressed in costumes characteristic of the different parts of India and Ceylon have also been acquired to illustrate vividly the sartorial habits of the people of the different States in the country. Another attractive exhibit is a series of dolls illustrating the various classical dances of India, namely, Bharathanatyam, Kathakali, Kathak and Manipuri.

A science section, especially one that is equipped with working models, is an indispensable part of a modern Children's gallery. With a view to fulfilling this need, a number of scientific exhibits have been acquired to start with. These include a series of specimens and photographs illustrating the story of glass in its varied forms, its manufacture and multifarious uses, the Spitz Junior Planetarium capable of projecting a realistic image of the starry skies in a darkened room, a working model of an internal combustion engine, and two globes worked by electricity, one illuminated by an internal electric bulb and the other a rotating one with a model of a man-made satellite revolving round the globe, the relative speeds of the motions of the earth and the satellite being accurately depicted in this working model.

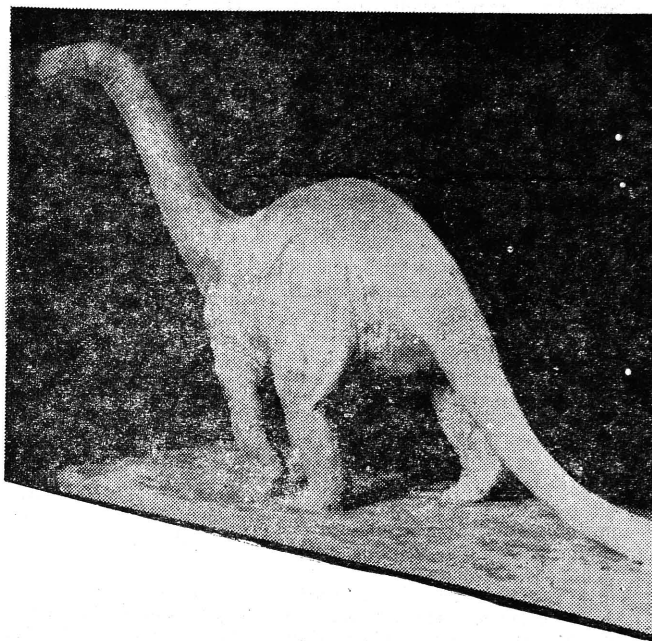
A few scale models of well-known foreign ships and native craft of India which are also available at

present in the collection of the Children's Section are exhibited as part of a series illustrating the evolution of human transport, along with working models of locomotives, aeroplanes and other means of transport, both primitive and modern.



Although this small collection of exhibits, as it stands at present, may appear to be a somewhat random assortment of miscellaneous objects, it would be possible to fit them into well planned and intelligible series, so as to tell connected stories illustrating specific themes in History, Ethnology, Biology and the Physical Science, which would appeal to children, as further material is gradually added. The proposed Children's Section is a new venture, and is still only in its formative stage, but it holds out a great promise for the future and it is hoped in course of time this will form one of the liveliest and most attractive sections of this museum.

# ZOOLOGICAL SECTION IN MADRAS MUSEUM



The zoological galleries of the Madras Government Museum, as they stand today, are the tangible cumulative results of more than a hundred years of patient and determined effort on the part of a devoted staff, guided by the expert supervision of a succession of able directors whose powerful initiative and unflagging industry have contributed largely to the high standard of the vast array of material exhibited in these galleries. The past few decades have witnessed a record of steady improvement and expansion in all aspects of museum work relating to the zoological section. Apart from the skill, patience and laborious work involved in the collection, preservation, display, arrangement and interpretation of the exhibits in the public galleries, a great deal of effort had been concentrated on various other fields of museum activity, such as the building up of a substantial reserve collection for research and reference purposes, the organisation of planned collecting tours, faunistic surveys and systematic research work on various groups of animals collected by the Museum, the publication of the results of these researches in a valuable series of bulletins issued by the Museum and various kinds of educational services, particularly to schools all over the State.

The sprawling galleries of the zoological section in this Museum extend over eleven halls of varying sizes both on the ground floor and first floor of the southern wing of the main buildings, adjoining the sculpture galleries of the Archaeological Section. A leisurely ramble round these galleries is at once educative and entertaining giving visitor a glimpse into the multifarious curiosities of nature's creations and exciting in him a keener and more lively interest in his environment of which animals constitute an integral part.

The largest and probably the most reputed and valuable among the exhibits in the zoological galleries is the gigantic skeleton of the Great Indian Fin Whale *Balaenoptera indica* suspended from the centre of the ceiling in the hall of general exhibits at the commencement of the zoological galleries. The whale from which this skeleton was prepared was a fair sized specimen, measuring over 60 feet in length and was washed ashore in Mangalore in 1874. This species inhabits the Bay of Bengal and the Arabian Sea and belongs to the great group of whales known as the Baleen Whales or Whalebone Whales which have no teeth but possess, remarkable, brush-like structures composed of numerous plates of

baleen or whale bone suspended from the roof of the mouth on either side, enabling the whale to strain out the water from fish snails and shrimps on which these whales feed. They are thus "filter feeders", being wonderfully adapted to this peculiar method of feeding. Fully grown specimens of this species attain a much larger size than the one exhibited here and are said to be largest of animals known, living or extinct.

The other great group whales, the toothed whales, which have solid teeth, instead of the Baleen plates, is represented in this gallery by the enormous skull and lower jaw of the Sperm Whale or Cachalot (*Physeter macrocephalus*).

Among other notable skeletal exhibits in the Museum in the huge skeletons of the Indian elephant and their skulls and tusks of solid ivory deserve special mention. There are two completely articulated and mounted skeletons of the Indian elephant, one in the centre of the mammal gallery and the other in the general skeletal gallery, and two enormous skulls with massive tusks weighing over 50 lb. besides a few sections of the skull which serve to illustrate the comparatively small size, of the brain cavity in spite of the



arge size of the skull, and the presence of a large number of air spaces in the bones of the head which render the skull surprisingly light in proportion to its size. The entire mounted skeleton in the centre of the mammal gallery is that of a full grown tusker standing over ten feet in height at the shoulder and arrests the attention of the visitor even from a great distance, by its imposing size. The other complete skeleton in the general gallery is that of a female and is considerably smaller.

In the small hall adjoining the gallery of skeletal exhibits, there is an instructive section devoted to exhibits illustrating the phenomenon of flight in the various groups of back boned animals. Though the power of flight attains the climax of its developments in birds, yet it is manifested in varying degrees also in the other well known groups of higher animals such as fishes, frogs, reptiles and mammals. On one side in this hall, the attention of the visitor is attracted by a group of flying fish *Exocoetus* sp. displayed as though they are leaping across the air over the surface of the sea. These are the familiar flying fish of the Madras Coast.

Other selected examples of flying vertebrates, such as the flying frog, flying lizard and the large Indian fruit bat or 'flying fox' are also exhibited against the wall in this gallery, accompanied by enlarged X-ray photographs to show the skeletal adaptations to flight, and a large, well drawn picture of a curious extinct ancestral reptile known as the *Pterodactyl* which possessed a very well developed wing membrane and could fly almost as effectively as any bird.

Although the scope of our collections is limited to examples of South Indian fauna, this Museum can still boast of a small complement of animals and birds from foreign countries which we have been fortunate enough to acquire. This collection has now grown so substantially that it has been found necessary to devote an entire gallery to foreign fauna. Among the exhibits in this gallery the Orang Utan, a model of the bust of the Gorilla, the Tapir, the Kangaroo (*Macropus giganteus*) (Fig. 96), the Duck-billed Platypus and the Cassowary are perhaps the most outstanding ones.

The Malayan Tapir, of which a fine specimen is exhibited in this gallery, is another interesting foreign animal allied to the horse and the rhinoceros. Tapirs are found at the present day in South and Central America and in the Malay Peninsula, Java and Sumatra, thus affording an excellent example of discontinuous distribution.

Australia, as is well known, has a peculiar fauna of its own most of its animals belonging to species found nowhere else in the world. The isolation of this island continent has been largely responsible for the evolution of unique species of animals. Examples of Australian fauna represented in our Foreign Animals gallery are the Cassowary, Kangaroo and the Duck-billed Platypus. The Cassowary ranks foremost amongst the small collection of foreign birds in the Madras Museum.

The Kangaroo and the Duck-billed Platypus exhibited in this gallery are comparatively recent additions to our collection of foreign animals. The skin of a large male Kangaroo was very kindly presented to the Museum by Dr. Herbert Hale, Director of the South Australian Museum, Adelaide, in exchange for a small series of skins and skulls of the Indian Pariah dog which he needed for purposes of comparative study. It is this skin of the Kangaroo that has been stuffed, mounted and exhibited in a characteristic pose in this gallery.

The specimen of the Duck-billed Platypus (*Ornithorhynchus*) exhibited is a gift from Mr. Prescott, the Director of the National Museum, Melbourne. This curious animal confined to Australia, is one of the most primitive of living mammals, laying eggs and well adapted for an aquatic habitat. The Australian spiny Anteater (*Echidna*) which is also a primitive egg-laying mammal allied to the Platypus, is exhibited in the general gallery of comparative exhibits along with specimens illustrating variations in the integumentary structures of mammals.

A collection of beautiful birds, illustrating bright plumage exhibited provisionally in the ground floor of the new extension to the Natural History gallery makes a particularly impressive display by virtue of the gorgeous colour and lustre of their feathers. These include mostly

foreign birds, but a few are found far north in the Himalayas and some are migratory visiting India only in winter. This series includes the beautiful Macaw from tropical South America—a magnificent multicoloured red parrot, the exquisite little Mandarin Duck from China (Fig. 97) (*Aex galericulata*), the Silver Kaleege Pheasant with its graceful ornamental plumage, also from China, a male Tragopan from the Himalayas with a brilliant ocellated plumage and a male Brahminy Duck, or Ruddy Sheldrake—a brightly coloured migratory duck found in summer in Europe and Northern Africa but migrating down to the plains of India, Burma, South China and Japan in winter. The Tragopan (*Tragopan blythi blythi*) and the Brahminy Duck are recent additions to our collections received from the Madras Zoo. All these birds with their richly coloured plumage serve to demonstrate impressively how lavish mother Nature can afford to be in clothing her children.

But apart from the few exhibits of foreign animals we have just surveyed, the bulk of the Museum's collections, both in the galleries and in reserve storage, consist of specimens of indigenous animals and a student or a layman gets a fairly complete picture of South Indian fauna by making a study tour round the galleries. It may be of interest to refer now to some of the more notable ones among these exhibits, particularly those which have been added in recent years. Among reptiles the visitor will be particularly impressed by a huge specimen of the luth or the leathery turtle (*Dermochelys coriacea*) exhibited in the Reptile gallery in the spacious case containing several other specimens of Indian marine turtles. It is the largest of living turtles, reaching a length of seven to eight feet and is sometimes known as the trunk-back owing to the presence of strong, longitudinal ridges on the back. It is remarkable in that it is the only species of turtle in which the vertebral column is free from the dorsal shield. It feeds on fishes molluscs and crustaceans and comes shore to lay its eggs. Its large strongly flattened, paddle-shaped limbs serves as excellent swimming organs. A tortoise from Seychelles (*Testudo emys*) is one of the important exhibits in the Reptile gallery. This is a black tortoise exhibited in a standing posture in a centre case.

A good representative series of specimens of the Indian species of crocodiles of varying sizes, ranging from very young ones barely a foot long, to giant specimens measuring from about eight to ten feet in length also make an impressive display among the exhibited reptiles in this gallery. Among these, a moderately young, half grown specimen of the Mugger or Marsh Crocodile (*Crocodilus palustris*) about three feet in length, which had been recently acquired from the Madras Fisheries Department is mounted with its jaws gaping open and the teeth exposed, and its colour being fresh, looks more realistic and life-like than the others in this series.

Among snakes, a stuffed specimen of the Indian Python or Rock Snake, which was acquired recently from the Trichur Zoo, and attracted large

crowds when it was put up as a live exhibit at the entrance to the Museum for some days prior to its ultimate preservation, is one of the most remarkable specimens exhibited in this gallery. It is the largest of Indian snakes and is capable of capturing and swallowing animals much bigger than itself, by means of its powerful and widely distensible jaws.

Another interesting exhibit is a stuffed specimen of the Blood-sucker (*Calotes versicolor*) shown in its natural habitat.

A large number of South Indian species of snakes are exhibited in this gallery arranged in systematic series. The exhibited snakes comprise both poisonous and non-poisonous forms and include real specimens mounted in jars of alcohol

as well as plaster and wax casts painted in natural colours. The well known poisonous snakes of India, namely, the Cobra, Krait, Russell's Viper and Sea snakes are represented by fine specimens. Among the most remarkable of the reptilian specimens added to our collection in recent years are the Banded Krait and the Rattle snake—both highly poisonous.

The Diamond-backed Rattle snake is another valuable addition to this gallery. It is an American species of viper, belonging to the group known as the Pit-vipers, characterized by the presence of a well marked pit, the loreal pit, between the eye and the nostril.

The small section devoted to frogs and toads at the further end of this gallery contains a display of specimens representing the various species of South Indian amphibians including an interesting habit group of the common chum frog which lays its eggs in a froth mass on leaves of plant overhanging water, so as to enable the young tadpoles, when they hatch out, to gain ready access to water in which element alone they can proceed with their further development into the adult state. A huge bull frog mounted in a jar also arrests the attention of the visitor in this section; it is the largest of Indian frogs, attaining a length of more than six inches. A few peculiar snake-like creatures known as blind worms or Coecilians exhibited in this section are of special interest as they are more nearly related to frogs and toads than to snakes, despite their superficial resemblance to the latter.

In the large and spacious gallery of birds, adjoining the gallery of reptiles, the visitor is presented with a display of an almost complete series of South Indian birds arranged systematically in their natural sequence—a collection that had been gradually built up through several decades of patient and arduous labour, and stands today as a veritable text book of South Indian Systematic Ornithology.

One of the most unique and valuable of our recent zoological acquisitions were a pair of the Pink-headed Duck (*Rhodonessa caryophyllacea*) exhibited in this gallery among the collection of

Aviary of interest to youngsters.



ducks. This is perhaps the rarest and one of the strangest ducks in the world.

Another notable recent addition to the bird gallery is a fine male specimen of the elegant Mute Swan which was received from the Madras Zoo.

A pair of the Grey Jungle fowl (*Gallus sonnerati*) (Fig. 107) (male and female) collected recently from the scrub jungles around Pudukkottai and mounted and displayed in a natural setting is another exhibit of special interest, as this species is said to be the ancestor of our domestic breeds of poultry. The cock has an attractive plumage. The Grey Jungle fowl inhabits scrub jungles especially in areas where bamboos grow.

Apart from the birds themselves the Madras Museum possess a rich collection of birds' eggs. Collection of birds eggs and their correct identification are not easy tasks and the Madras Museum may justly be proud of this unique scientific treasure. Recently we were fortunate in having managed to acquire over 500 specimens of named birds' eggs from localities ranging all over the world, belonging to the late Mr. Inglis' collections. Some of them are from distant places such as Japan, Russia, Scotland and other parts of Europe and many of them are remarkable for the beauty of their colour and colour patterns. The greater part of our egg collection is stored up in the reserve cupboards, for want of display space, but a few selected examples are exhibited in a separate series to illustrate the significance of the evolution of colour markings in bird's eggs. Eggs of birds vary a great deal in their size and colour.

In the centre of the adjoining gallery, which is devoted to the display of selected examples of South Indian mammals, stands the huge and predominating skeleton of a male Indian elephant displaying its tusks in their full splendour.

Among our collection of South Indian mammals, which has recently been enriched by the addition of two fine specimens of the Indian Sloth Bear (*Melursus ursinus*) one standing erect on its hind quarters and another mounted standing on all fours on an artificial rock-like pedestal and the Indian Wild Boar, (*Sus cristatus*) mounted in a life-like pose on an artificial rock-like base, visitors will be specially interested in the large ferocious carnivores such as the Leopard, the Tiger (*Felis tigris*) and the Hyæna, members of the deer tribe such as the Antelope or Black Buck, the Spotted Deer and the Barking Deer and in the remarkably fish-like aquatic mammals, the Dolphin and the Dugong. One of the notable additions to this gallery is an attractively mounted specimen of the Cat-Bear or Indian Panda, (*Ailurus fulgens*).

The spacious hall on the first floor, directly above the Mammal gallery, is devoted to a display of Indian fishes in almost endless variety.

The Museum is also considerably rich in its collection of shells—another large group, mostly marine, displaying an almost endless variety in shape, colour and structure. Among these, the ponderous shell of the giant clam (*Tridacna cumingi*), collected from the Laccadives, is one of the most impressive exhibits.

Other notable exhibits in this gallery are the remarkable starfishes, sea urchins and sea lilies which display a characteristic pentaradial symmetry, a large series of insects representing the various important orders of insects, brightly coloured specimens of crabs and lobsters including the enormous coconut crab common on the Andamans and Nicobar Islands, and an interesting collection of Arachnids, which, besides the scorpions and spiders, includes a fine specimen of the unique King Crab (*Limulus*) which, with its heavy armour and grotesque appearance, is often

described as a living fossil as it has stagnated in evolution and practically remained unchanged throughout the long period of its fossil history which dates back to the Triassic period, which is about two hundred million years old.

At the present day, in almost every advanced country, all the world over, Museums have come to acquire a new significance in the scheme of life. From their rather unenviable status of being mere show places or repositories for a miscellaneous assemblage of objects, some years ago, they are now gradually coming to the forefront and beginning to assume a more dynamic function, particularly as an indispensable instrument in the field of education, both of children and of adults. The Museum of the present day should therefore move with the times and be prepared to shoulder many fresh responsibilities if it has to fulfil the growing demand on its resources as an educational institution. In order to achieve this, the primary need is to modernize our Museums, particularly in the methods of presenting and interpreting our material to the public so that they may be viewed and appreciated to the best advantage.

It is with this end in view that we have in recent years, begun to introduce a few new features in the zoological galleries, which aim at improving the organisation and display of the exhibited material.

It is hoped that in the years to come it would be possible for us not only to maintain in trim condition the rich heritage that has been handed down to us in the invaluable collections of the Museum but also to continue the improvements and developments that have been taken on hand recently and hand the collections down to posterity in a refined, augmented and modernised setting as a legacy truly worthy of the traditions of this great institution.

# FAMILY PLANNING ACTIVITIES OF THE ASSOCIATED CEMENT COMPANY, MADUKKARAI

*The Associated Cement Companies Limited, Madukkarai, Coimbatore District.*

Madukkarai Cement Works, one of the 18 Cement Factories owned by the Associated Cement Companies Limited, is the first modern cement Factory established in South India in 1934. This factory has been progressively expanded to meet the growing demand of cement for dams, roads, bridges, housings, etc. Now it supplies 3.82 lakh tonnes of cement every year for vital nation building activities. To-day, it employs nearly 2,700 persons.

A well-equipped and adequately staffed hospital is run by this factory for the benefit of its employees. They have attached great importance for the National Family Planning Programme and started the Family Planning Programme in the year 1956 itself. They are doing Family Planning Work on their own interest and without any financial assistance from the Government side.

Recently the management of this factory have announced liberalised incentives to its employees who have undergone sterilization operation as detailed below :—

## I. Coverage—

(i) All the employees including Officers irrespective of their salary, are now covered by the scheme. Employees included permanent, temporary, casual and badli workmen.

(ii) Contract labour employed in the factory or quarry—whether permanent, temporary or casual—are also now covered.

## II. Cash awards—

(i) A cash award of Rs. 300 to an employee or his wife who undergone sterilization operation, viz., Vasectomy or Tubectomy as the case may be, after two children.

(ii) A cash award of Rs. 200 to an employee or his wife who undergoes sterilization operation after three children.

(iii) A cash award of Rs. 100 to an employee or his wife who undergoes sterilization operation after four or more children.

## III. Special Leave—

(i) Special leave ranging from one to three days as recommended by the Company's Medical Officer will be given.

(ii) In case of women employees who undergo Tubectomy operation, the period of special leave shall range from 7 to 15 days depending upon the Company's Medical Officer recommendation.

During this intensive campaign about 50 employees of this factory have undergone Vasectomy operation at Arispalayam Primary Health Centre and benefited by the incentives given by Government and by the factory.

## SCHEME FOR INVITING INDIAN SCIENTISTS AND TECHNOLOGISTS WORKING ABROAD.

The Government have decided to formulate a scheme for inviting Indian Scientists and Technologists working abroad, to work in the Scientific and Technical Departments, Institutions and Colleges in the State.

The salient features of the scheme will be as follows :—

(i) 30 Tamil Nadu Scholars working abroad will be invited to work in Scientific and Technological Departments, Institutions and Colleges in the State during their sabbaticals at remunerations ranging from Rs. 700 to Rs. 1,200 per mensem.

(ii) Under the Visiting professorship scheme 20 eminent foreign scientists will be invited to deliver courses of lectures. The cost of boarding, travel and lodging expenses will be met by the State Government.

(iii) The services of the Scientists, who are in the Scientific pool of the Council of Scientific and Industrial Research will be utilised for the benefit of the scientific and Technical Institutions/Colleges/Departments in this State subject to the condition that this scheme will be further examined and implemented during 1973-74, subject to availability of funds.

The scheme will be implemented with effect from 1972-73.

Education Secretariat will be in overall charge of implementing the scheme and co-ordinating the efforts of the Departments concerned ;

AcordinatingCommittee consisting of the Secretary to Government in the Industries, Health, Agriculture, Public Works Department, Finance and Education Departments will be set up and will meet at least once in two months to review the implementation of the scheme.

A detailed letter explaining the scope of the scheme will be printed and copies circularised to the Educational Attaches in Embassies for distribution among scientists and scholars from Tamil Nadu, who are working abroad.

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Even to the Emperor, Azhagi said that the sheep had been vouchsafed to her by the Lord. Impressed by her devotion, Raja Rajan told her ! "Mother, if you have any desire to be fulfilled, do let me know—I would do the needful straight-away".

Overwhelmed by his kindness, Azhagi said : "Oh, Emperor, what more would I have to seek, now that you have addressed me as 'Mother' ! The honour is sufficient to me for having provided food to the sculptors engaged in the construction of Raja Rajecharam, that shall be uttering the undimmed glory of your name for all times to come".

So saying Azhagi was about to fall at the Emperor's feet, but he restrained her and said : "I have understood the purity and innocence of your heart. The acts of the monarch do not bring glory to the monarch only. My view too is that it should not be so. Whoever strives for the grandeur of the Chola Empire deserves my gratitude. The Chola realm of today is not the creation of my individual prowess alone. Nor is it the outcome merely of the swordsmanship of my valorous son standing here. It is the sturdy shoulders of innumerable jewels of the Chola clan and the blessings of noble mothers such as you that have brought this Empire into existence. It is in your shade that I am standing now, Mother. And so whatever be your desire, do give expression to it".

## Shade for the Lord.

After some hesitation the old lady said : "Oh, Emperor, this poor woman has a petition to submit. I have heard the sculptors mentioning that a single rock of somewhat large dimensions is required for the upper slab of the *Vimana*. Such a piece of rock is in my possession and I would beseech you to accept the same". Even before she could conclude this prayer, tears welled up in her eyes.

"A single rock" ? required the monarch in surprise, turning to the sculptors.

"Yes Sire," said the sculptors reverently, "Kandradhittar too expressed the view that it would be eminently appropriate if the slab of the *Vimana* were to be of a single rock. The Prince has also accepted that"—

Raja Rajan raised the question ! "The *Vimana* is to touch the very skies—would it at all be possible to transport a huge rock to the top at such a height".

At this, the old lady bowed low as she submitted ! "Oh, Emperor, if an inclined plane is set up from my abode, it would be an easy task to move the rock to the top of the tower. The distance between my house and the tower would be about four miles. Once the inclined plane is set up, the rock could be rolled on to the top as easily as it could be rolled on level ground". Thus did she suggest a way to tackle the problem.

The Chola Emperor was astonished at the display of her keen intelligence. He decided then and there that the rock donated by her should be used as the slab for the *Vimana*. Smilingly he accepted the decision ; H'm, however large a temple I might construct, ultimately the Lord is bound to say, "We are pleased to be enshrined in the shade provided by the old lady" ! The monarch sighed as he said this but it was not a sigh of frustration. On the other hand it was a sigh of supreme joy !

Acting on the advice of Azhagi, the sculptors set up an inclined plane from her abode four miles away and along that contrivance they transported the rock to the top of the *Vimana*. The "*Charapallam*", that is, "Hallow of the inclined plane" straightaway. In order to demonstrate his gratitude to Azhagi and by way of honouring her for her acumen and service-mindedness, the Emperor ordered a tank and a garden to be brought into being and named after her, in Thanjavur.



# CHAMUNDI OF CHARAPALLAM

By: DR. M. KARUNANIDHI

## Raja Rajan's Grievance

The Temple was nearing completion. Kandradhittan had fulfilled all the tasks in accordance with the suggestions of Raja Rajan, Rajendran and Kundhavaiyar. The only item of work that had not even commenced was the carving of the 108 dance-postures on which the Emperor was very keen. This was a major grievance in the heart of Raja Rajan and peace would elude him until such time as the work was completed.

An elaborate discussion on this subject was scheduled at the place. Kandradhittan was sent for and the participants were members of the Chola family consisting of the Emperor, his son Rajendran, Rajendran's wife Panchavan Madevi and Kundhavaiyar. Kundhavaiyar explained in moving terms to Kandradhittan, the state of mind of Raja Rajan.

Her question was "What is the reason for disregarding the desire of the Emperor"?

Kandradhittan replied: "I submit it would be doing me an injustice to say that the Emperor's desire has been left in neglect. After searching throughout the land, only last week could I discover a competent sculptor".

Raja Rajan asked in some asperity: "Although week has passed since you found a competent sculptor, what bizarre reason do you have for not beginning the work"?

Kandradhittan's even answer was "He is a sculptor who brings rock to life. He is of youthful years no doubt, but in his Art there is the maturity of tradition. He carves even soft flowers on hard rock. He takes his tool, taps a rock with it and gets down to work and within a short while a damsel smiles at you coyly from



**RAJA RAJAN :—**  
"Mother, if you have any desire to be fulfilled, do let me know—I would do the needful straight away".

**AZHAGI :** "Oh, Emperor, what more would I have to seek now that you have addressed me as "Mother".

"Who is he and what is his name"?

"He hails from Mamallapuram ; his name is Iniyan".

"My question is, why should an artist of such outstanding proficiency tarry in the matter of fashioning the dance-sculptures"?

"That is what I am coming to. He has told me conclusively that in order to assist him in creating the sculptures, a damsel duly trained and proficient in the Art of Dancing has to stand before him and portray appropriate posture and emotion; and only then would it be possible for him to make the sculptures realistic".

"I see—evidently he is a true artist who transmits realism in the Art. You could have made the necessary arrangements as desired by him. Why the delay"?

"An adequately trained danseuse is yet to be found".

"What ! We have recruited as many as four hundred artists, allotting to each one *Veli* of land".

"Is there no one among the lot who knows dancing"?

"One hundred danseuses have performed in front of that sculptor".

"Did not even one of the hundred girls come up to his expectation".

"They who could be called queens in the realm of Dancing, such as Nakkan Raja Raja Kesari and Nakkan Chola-Kula Sundari have danced in front of him, displaying the entire repertoire of their proficiency. But he points out some flaw of other in each of them before he discards her. And his verdict too seems to be in order".

"Is that so"?

"Yes, She who does the Dance of Anger with such consummate skill commits a flaw when she comes to perform the dance of Supreme joy. She who earns kudos seeming to be stepping on fire when she does the Dance of the Three Floating Fortresses. And thus they all get eliminated, one after another".

## "HAS ART WITHERED"?

"Kandradhitta, does this not mean that the life has gone out of Art in the Chola Empire ? I had been fondly hoping glory would be consolidated for all times to come that the Chola land was the land that nurtured Art. And that hope is now shattered to pieces. When the times to come speak my praise, that I subdued Kalinga and conquered Ceylon, will not be the cacophony also sound that it was vanquished in my own land, through not being able to secure fulfilment of the one desire in my heart ? What has become of the heap of treasures being expended for the development of Art ? Has thunder struck the Art Institutions that are charged with the responsibility of imparting instruction in Art ? What a disgrace indeed ! The ships of my fleet have churned up the monarchs of the western coast ; but now I am myself being churned up by the tidings that Art has withered in the Chola country! Without putting it in so many words, you are telling me now, through the scroching piece of news that Art has been extinguished in Thanjavur, that the pillar of victory I erected on the Mahendra mountain is a mere exercise in futility ! Would the geographical extent of our Empire endure in the times to come ? Even if it remains, my valour at best could be estimated by that. Oh, would not the future bring up the query : "Is that condition, wherein a barbarian stood bereft of Art-consciousness, to be designated as valour ? Was it not, on the other hand, an orgy of the unbalanced" ? Who is to answer that ? My statue in the temple of Thanjavur ? No, no, let that statue be dishonoured. I order here and now that the statue should be smashed into smithereens."

All those present were stunned to hear the utterances of Raja Rajan, charged with anger and grief. Tears filled the eyes of Kundhavaiyar. Kandradhittan turned his face away from the Emperor. As for Panchavan Madevi, she was scanning the face of her husband Rajendran.

By way of alleviating his father's despair and ire, Rajendran buried his face in the Emperor's feet and said in faltering voice : "Father, do please refrain from speaking in this vein. Which of your commands have we failed to carry out so far ? I take upon myself the responsibility of ensuring that the 108 dance-postures are carved by that very same sculptor Iniyan. Oh, do give up your anxiety on this account"! Rajendran's voice sounded firm as he conveyed the assurance and thereupon the Emperor was pacified to some extent.

(To be continued.)

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