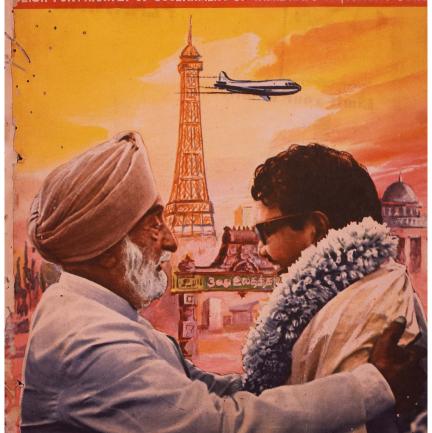


FLISH FORTNIGHTLY OF GOVERNMENT OF TAMIL NADU-16#JULY1970-35PAI





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15 July 1970

Г No. 2

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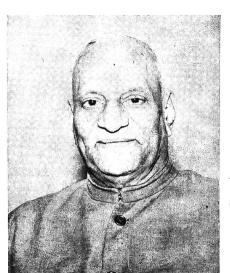
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C. M. RETURNS ON 21st JULY

The doctors in London who were consulted about the eye ailment of the Chief Minister have expressed the view that the treatment prescribed by the Madras doctors will suffice. No operation was considered necessary. In the light of this advice, the Chief Minister is returning on 21st July as per the original programme.



PRESIDENT'S CAMP, INDIA MADRAS, JULY 11, 1970

H Mirror of Tamil Nadu

I send my greetings and good wishes to "Tamil Arasu", the fortnightly magazine of the Government of Tamil Nadu.

Tamil Nadu has made great strides in the economic, social and cultural fields. I am sure the journal will mirror these developments.

An informed and enlightened public opinion is the sine-qua-non of democracy. I hope the journal will give an authoritative exposition of the policies and programmes of the Government. I wish the journal all success.

V.V. You



FAREWELL, LOVING HEARTS...

"I am a captive in your loving hearts: From you I take leave, ere long I shall be back in your midst."

At Meenambakkam aerodrome on lst July 1970, from a specially erected rostrum, the Chief Minister of Tamil Nadu Thiru M. Karunanidhi made the shortest speech of his life to an audience which had waited for the longest spell of time. Probably tears welled up in his eyes behind those dark glass spects. And as he stepped down from the rostrum, so haltingly, cascades of flower petals were sprung upon him accompanied by a rising crescendo of 'au revoir' from the vast audience assembled at the aerodrome.

After accepting garlands and good wishes from an unending line of well-wishers, the Chief Minister made his way to the waiting plane, and with his wife Thirumathi Karunanidhi waved 'bye-bye' endearingly, and boarded the plane. And fit-

tingly enough the send-off was warmhearted and unprecedented in its dimensions, stretching all the way from Gopalapuram to the very steps of the plane.

Governor of Tamilnadu Sardar Ujjal Singh was the first to greet and garland the Chief Minister at the aerodrome, followed by the Cabinet Ministers, the Speaker and Chairman.

The Chief Minister, on the eve of his first trip abroad found it necessary to relax his self-imposed discipline not to undertake tours. His first such tour was to Villupuram on 23-6-70 where he was called upon to distribute more than 20 thousand land assignments from a single platform. On this unprecedented occasion he distributed 8154 acres of cultivation lands to 5859 persons and house-site assignments

to 14,144 persons. He also distributed loans on behalf of landmortgage banks to 45 persons for a total sum of Rs. 1 lakh for digging wells and purchase of pumpsets.

The Chief Minister availed the occasion to reiterate that the landless poor must appease their landhunger with the help of the law as it will sustain them in their possession. All other means would only end in disenchantment. From Villupuram, the Chief Minister left for Tiruvarur and from there for his birth-place. Tirukkuvalai, where, on 24-6-70 he participated in several functions. He donated his house in Tirukkuvalai for locating a primary school. He also laid a wreath on his mother's Samadhi at Kattur.

In the midst of his hectic obligations, the Chief Minister found

(Continued on page 8)

MANY HAPPY RETURNS OF THE DAY

On the occasion of his 51st Birthday, Navalar V. R. Nedunchezhian, Minister for Education, was the recipient of warm felicitations from colleagues, friends and a host of admirers.

The Education Minister reciprocated with warmth. He was particularly happy when well-wishers collected enough money to pay for 1000 slates, 10,000 pencils and notebooks and requested him to present them to school children on the occasion.





BON YOYAGE TO TAMIL DELEGATION



Thiru K. A. Mathialagan, Minister for Finance, left Madras on 10th July 1970 for Paris. He is leading a delegation of eighteen Tamil Scholars of Tamil Nadu which will participate in the Third International Tamil Conference in Paris.

The Madras City gave a warm send off to the delegation. Meenambakkam airport wore a festive look with thousands of leading personalities and the public thronging the airport to bid bon-voyage to the delegation.



Symbolic of C. M's Far Reaching Ideas

The journal "Tamil Arasu"—an integrated publication of almost all the journals published by different departments—newly brought out by the Government both in Tamil and English is the symbolic flowering of the far-reaching ideas of our beloved Chief Minister whose heart throbs with unending thoughts for the welfare of the common man. It is almost an axiom to say that this is the age of the common man whose understanding of, and participation in, the policies and programmes of the Government is of vital importance to the successful functioning of the democratic set-up. "Tamil Arasu" would, I am sure, serve this long-felt need and place before the people in proper perspective an over-all picture of the activities of the Government in different spheres and in what way the people could respond and co-operate with the Government to bring to fruition various welfare and development programmes aimed at improving the lot of the common man. It is with this very object in view, this journal has been priced at 35 paise so that it can be within the easy reach of the common man. I wish the publication all success. I have no hesitation that it will grow from strength to strength and become popular ere long, securing the widest circulation.

E. P. ROYAPPA

Chief Secretary to the

Government

time to perticipate in the 65th birthday celebration of Thiru M. P. Sivagnanam. At at function organised in connection with the United Nations Education year, Dr. Triguna Sen and Prof. Sher Singh presented awards to 47 outstanding proponents of Tamil. Thiru Karunanidhi who received one of the awards was singled out for fulsome praise by both dignitaries on the occasion.

The Chairmen of Tamilnadu Panchayat Unions who had assembled at Rajaji Hall on 28-6-70 availed the occasion to give felicitation to the Chief Minister. The same evening at the University Centenary auditorium the South Indian Film Chamber of Commerce presented the Chief Minister a purse of Rs. I lakh which was immediately put into 'Karunanidhi Trust' for helping the less prosperous among cine artistes and technicians. However from the trust, the first donation of Rs. 25,000/- was ear-marked for

CHIEF MINISTER

AT TIRUVARUR FUNCTIONS

a high school to be named after the parents of the Chief Minister at Tirukkuvalai. A host of leading film artistes and technicians made heart-warming speeches identifying themselves fully with the far-flung fame of the Chief Minister.

The Chief Minister received the blessing of Periyar E. V. Ramaswamy, Kunrakkudi Adigal and many Tamil savants at a function organised at Ashoka Hotel on 29-6-70. Earlier the same day, the Mayor and the City Fathers gave the Chief Minister a civic reception. The day before his departure, on 30th June, the Chief Minister called on Rajaji and Quaide a Millath and Jook leave in person. He also met Press men at the Secretariat to dilate on his foreign tour, appri-









sing them also with his mission abroad by giving them the publications he was taking with him for distribution during his foreign tour:

(1) The D.M.K.—Genesis & Growth (2) Pearls—an anthology of his peoms translated into English (3) Flame (collection of short stories) (4) As we march on... (his speeches).

The ° Chief Minister was also enabled to fulfil one of his long-cherished designs, viz., the integration of all government journals into one single colourful periodical. Accordingly the first issues in Tamil and English were brought out as the integrated journal 'Tamil Arasu'.

The release function was held along with the mammoth Prosperity Brigade Parade in his honour at the Nehru Stadium, on 30-6-70. A rally of Students was also held on the occasion. Leaders of all political parties delivered felicitation addresses to the Chief Minister. On the whole it was a fitting occasion for the release of a popular journal. On 1-7-70, the day of his departure, the first thing he did was to visit the Anna Samadhi and lay a wreath in grateful memory of one who made him what he is.

Not for nothing then that people in Madras made a festival out of the farewel to the Chief Minister on his first trip abroad. Around 4 P.M. on the day he started from his residence and it was a slow drive to the air-port because of the surging crowds on both sides of the road. He changed over to an open jeep near Saidapet. It was from this point that it became clear that the send off has taken more the form of a festival than the usual long wait ending in a quick, full-throated cheer. Nagaswaram or band music greeted the Chief Minister at all important landmarks and all manifestations of people's affection were showered on the Chief Minister all the way.



C. M. Invites French Collaboration in Metallurgical Industries

Thiru M. Karunanidhi, Chief Minister of Tamil Nadu during his 3-day stay in Paris visited the France's National Council for Commerce, comprising the leading bankers and industrialists. Mr. Mayolle, President of the Council mentioned that a French Delegation for exploring the possibilities of French investment & collaboration in India will be visiting the country. In reply, the Chief Minister spoke about the Salem Steel Plant and indicated that this project would provide opportunities for starting subsidiary metallurgical industries in Tamil Nadu. He also gave a detailed picture of the needs and scopes of foreign collaboration in Tamil Nadu for petro-chemical industries, salt based industries and mining of copper.

NEW IRON SOURCES LOCATED IN TAMIL NADU

The Tamil Nadu Mineral Development Project, set up in collaboration with the United Nations Development Programme has located new iron ore resources near Tiruvannamalai. It is conducting intensive mineral exploration work over an area of about 20,000 square Kilo meters forming parts of North Arcot. South Arcot. Salem and Dharmapuri districts. The project for which the United Nations Development Programme contributes a little over one million dollars aid in the form of Expert Services, equipment for field prospecting work, laboratatory instruments, and air-borne geophysical surveys, have brought to light new iron ore occurrences and rich rocks known as carbonatites which carry useful minerals such as vermiculite, apatite (a phosphate of calcium) and minerals containing rare-earth elements such as niobium, tantalum, uranium and thorium

Iron ore deposites were located on two hills, Kavuthimali and Vediappanmalai about 10 kilo meters north of Tiruvannamalai. The hills lie in Government reserved Forest on either side of Tiruvannamalai—Kanji Road. The ore is in the form of magnetite—quartizite occurring in concentric bands in the hills. Preliminary estimates indicate ore availability at 50 million tonnes.

OUR FUTURE LIES IN EXPORT OF MINERALS & METAL MANUFAC-

THRES

The growth of our major traditional exports and in particular tea, jute and cotton textiles is likely to be slow. The major directions of future diversification will lie in metals and metal manufactures (including machinery, equipment and engineering goods), iron ore, chemicals and all allied products. The world demand for these has been growing and will continue to grow, at a much faster rate than for most other items. India, with its wide industrial base, which will be further strengthened and expanded as a result of the programme of development, should be in a position to take advantage of the growing trade opportunities in this range of products on a competitive basis. Of the projected increase in commodity exports, it is postulated that nearly 65 per cent would be obtained by the expansion of trade in minerals and manufactures The share of tea and jute manufactures, two of India's major traditional export items, is expected to be reduced from 29 per cent of total export in 1968-69 to 17 per cent in 1980-81

The Mass Contact PROGRAMME

With a record high of 80 per cent disposal, the implementation of the Mass Contact Programme "血勁 為多多是止止啦" has achieved the following beneficial results:

The Programme has been well executed and the response from the public has been very encouraging. In a majority of cases people have had relief within a comparatively short period, requests relating to assignment of land, transfer of registry, old-age pension and such other requests with which the Revenue Department is directly concerned, having been disposed of mostly on the spot.

Out of 251, 842 petitions received in the districts, 201, 395 petitions have been disposed of which work out to as high as 80 per cent. Out of the petitions disposed of, the percentage accepted works out to 65. This is highly encouraging. The general trend is that it takes one to three months to dispose of petitions which could not be disposed of on the spot. But for the Mass Contact Programme, the redressal of grievances would have been a protracted affair entailing inordinate delay causing inconvenience, frustration and resentment among the rvots. The scheme is being improved further, in the light of experience.



DIVERT INTERNATIONAL FLIGHTS THROUGH MADRAS

STRONG PLEA BY Dr. SATHYAVANI MUTHU

Or. Sathyavani Muthu, Minister for Agriculture and Harijan Welfare, who is in charge of Tourism, inaugurated on 2-7-70 the first meeting of the Tamil Nadu Tourism Development Committee held at Rajaji Hall. During her inaugural speech, she said:

As the Minister for Tourism, I have been participating in the meetings of the Tourist Development Council and stressing the needs of Tamil Nadu. At the last Tourist Development Council Meeting held at Darjeeling I made a strong plea for diverting more International Air Services through Madras and pin-pointed the lacunae in the prevailing pattern of Tourism and Tourist Publicity abroad. Only about 21.5% of the Tourists visiting India come down to Madras. This being the position in respect of the Fourth largest city in the country, I need not go into detail about the general feeling that Tamil Nadu does not get its due share in Tourist Development Projects.

The Government of India, I believe, are expanding the Madras Airport. But that has to be matched with activities which will increase foreign tourist traffic. What is needed is that more international foreign Tourist traffic from the West should be diverted through Madras Airport. Only then we will have more tourist traffic in this part of the country. Only increased tourist traffic will generate more economic activity. I am happy that the Malaysian-Singapore Airways have introduced their flights to Madras. This is an encouraging trend.

In a representation received by

the Government from the South Indian Hotels and Restaurants Association there are suggestions like Financial Assistance to Hotel Industry, relaxation of prohibition rules to allow Indian permit-holders in the permit rooms, opening a bar at Airport Lounge, exemption of Hill areas like Kodai and Ooty from prohibition, employment of diploma holders in Hotel Industry etc. All these suggestions are under the active consideration of the Government, The State Government with its limited resources is unable to do anything except approaching the Government of India. Unless the State Government have a say in the public bodies like the India Tourism Development Corporation nothing fruitful can come out. For instance, the India Tourism Development Corporation initiated a move to construct a luxury hotel in Madras a few years ago. so far, I have not heard anything definitely from them on this project in Madras. The only Public sector undertaking in the field of tourism had not come forward to construct a luxury hotel in Tamil Nadu.

I request the Union Government to consider this complaint seriously and at least in the proposed Airport Authority, as a Government of India undertaking, I hope State Representatives will be included and any feeling of States being ignored is avoided.

We get lots of suggestions from Businessmen connected with Tourism regarding publicity and promotional activities but I frankly feel that the existing business establishments and hotels which cater to the needs of the foreign tourists can do a great deal to improve the image of India and to give publicity through them. For instance, even if it is for a day a foreign tourist stays in Madras, he may not have much time to see many things around. If in the hotel in which the tourist stays, he finds everything happy and comfortable, he would go with an impression that this is a good place for tourists to spend some time and he would spread a good word around which is a very essential and potent publicity that we cannot accomplish otherwise. The other important aspect is the people with whom the tourists come into contact: those who are engaged in room service, those who serve in restaurants and dining halls. These people can create a favourable impression of Tamil Nadu in the tourists' mind by their personal service. In Tamil Nadu, particularly in places like Madras, Madurai and Ooty the hotels can do a lot to ensure efficiency in service and thus contribute towards promotion of foreign tourism.

Ever since the present Ministry assumed office, it is giving due consideration for the development of tourism in this State. We wish to provide necessary facilities at the tourist centres, so that the tourists-local and foreign-can enjoy their visits to these places. In this respect, apart from the various development schemes such as the construction of tourist bungalows and improvements to approach roads to tourist centres, the State Government is also planning to train tourist guides at centres like Madurai, Ooty and Tiruchirapalli at State level.

THE THIRD WORLD TAMIL CONFERENCE

The Third Conference Seminar on Tamil studies is to be held from 15th to 18th July '70 in Paris at the College de France, under the chairmanship of Prof. Jean Filliozat. The Conference will be inaugurated by Tamilnadu Chief Minister Thirn M. Karunanidhi

A 18-member team led by Thiru K. A. Mathialagan, Finance Minister, will attend this conference. The delegation will include the Vicechancellors of the Universities in Tamilnadu and savants in Tamil like Thiru M. P. Sivagnanam and Thiru P. G. Karuthiruman.

This conference is one of the activities of the International Association of Tamil Research, an association which was formed for the purpose of promoting research in all branches of Tamilology, and has the support of UNESCO.

The First International Conference of Tamil Studies was held in Kuala Lumpur in 1966 and the Second Conference was in Madras in 1968. The Third is being held in Paris in July this year, and the Fourth in Ceylon in January 1973.

The reason for holding the Conference in Paris is to emphasise the international nature of the Association, as well as to acquaint European scholars with the latest developments in the field of Tamilology as a part of Dravidology.

French and English will be the official languages of the Conference at which about 200 participants are expected from 39 countries. The scholars will represent some 60

universities and institutions of higher learning. The largest number of scholars will be from France, Germany. India and the U.S.A. while there will be smaller numbers from Mauritius Malaya and Singapore, Hong-Kong, Japan and Canada. A Scholar has registered from the University of Zambia and another from the new University of Ulster.

At the inaugural session which will take place at the College de France, addresses will be made by Thiru K. A. Mathialagan, Leader of the Tamilnadu Delegation, Prof. Jean Filliozat and Dr. Malcolm Adiseshaiah, Deputy Director General of UNESCO, Ambassadors and distinguished scholars in fields other than Tamilology will also be invited to the inaugural session. The Deputy Director-General of UNESCO will hold a reception at the UNESCO headquarters in honour of the delegates, which will be followed by performances of Tamil dances to which all Ambassadors and other officials will be invited.

The sessions will take place on three days after which there will be a farewell dinner for the delegates at the Maison de L'INDE of the Cite Universitaire at Gentilly

The Conference will recall to the French nation the close links it has had with the Tamil-speaking peoples all over the world and the contribution French scholars have made to Tamilology and the contribution French missionaries, men and women, have made to education in

South India, Ceylon, Malaya and other countries.

It will also be an occasion to remember the work accomplished in French India, and the intellectual achievements of Tamils in Frenchspeaking areas. Residents of Tamil origin in Paris and London will be observers at the sessions.

This is the first time an international conference is being held in the West for the study of an Indian language and its literature. conference will also consider the proposal for setting up a research institute in Madras for the promotion of Tamil studies.

The composition of the delegation will be as follows:

Thiru K. A. Mathialagan, Minister for Finance and Leader of the Delegation.

- P. G. Karuthiruman
- M. P. Sivagnanam
- N. D. Sundaravadivelu
- T. P. Meenakshisundaranar Dr. M. Varadarasanar

Thiru Saw Ganesan

- K. Appaduraiar
- Ki. Va. Jagannathan
- A. Subbiah
- V. S. Thiagaraja Mudaliar
- I. Subramaniam
- S. Maharajan
- Agasthialingam Pillai
 - I. Mahadevan
 - S. Nagaswami
 - K. Venkatasubramaniam and
 - Farook Marikkavar, Chief Minister of Pondicherry.

Impressive Improvement in State's Economy LOAN TERMS ANNOUNCED

Thiru K. A. Mathialagan, Finance Minister, Tamil Nadu, at a meeting of Bankers and Industrialists on Monday, the 29th June at Rajaji Hall, announçed the borrowing programme of the Government and explained. as follows:

This year we seek to raise Rs. 16.50 crores as a public loan. Last year we opened the list for Rs. 20 crores-But the actual subscription was nearly Rs. 22 crores. We are however this year faising a smaller sum because the liability of our State on the loan maturing for repayment in the current year is only Rs. 5.56 crores as against the repayment of Rs. 12.21 crores in the last year. The net subscription which we are seeking this year is thus Rs. 11 crores roughly as against Rs. 9.7 crores realised last year. The new loan is being issued at par and will carry an interest of 53 per cent. The currency of the loan will be 12 years. The only deviation we are making this year is that the Reserve Bank of India has thought it fit to announce our loan as issuable at Par. The list for the loan will open on 15th July 1970 and close on 21st July or earlier as soon as the loan is fully subscribed. Subscriptions to the loan will be in cash and in security of the maturing 41 per cent Madras Loan, 1970. As in previous years, the Government will have right to retain subscription up to 10 per cent in excess of issue.

INVESTMENTS OF GOVERNMENT

I may stress before this gathering that the policy of Government continues to be one of managing its finances with prudence and imagination. Up to the end of 1969-70, we had invested Rs. 227 crores on Power Schemes, Rs. 134 crores on Irrigation, and Rs. 111 crores on buildings, stocks and other capital assets. We have also lent about Rs. 153 crores to local bodies Co-operative organisations and cultivators and these loans are fetching fair returns. What is even more important from your point of view, these loans lent to outside agencies are being realised quite earnestly. The arrears under different categories of loans and taxes in this State are low, perhaps the lowest in India. As against various assets of a book value of Rs. 685 croresreplacement value being much higher-the public debt of the State and the Electricity Board together, inclusive of the loans due to the Government of India is only Rs. 608 crores. You will no doubt agree that with reference to liabilities incurred and assets created, this State has been managing its business fairly well and therefore deserves your continued support.

The revenues of the State have registered an impressive improvement in recent years indicating the advance which the State's economy has made in different fronts in recent years. The total revenue of the State has increased from Rs. 81 crores in 1959–60 to Rs. 283 crores in 1969–70. As proof of our earnestness to implement a bigger plan for the welfare of the people, we have introduced variours tax measures so as to mop up resources available in the economy.

Our expenditure has no doubt been also increasing along with revenue.

However, I would like you all not to miss the main point that the increase in the resources has not been frittered away in non-developmental expenditure or in implementing prestigious projects of dubious economic value In spite of the substantial increases in pay and dearness allowance and other concessions given to the public servants and increase in the burden of interest charges, the non-developmental expenditure has been maintained in the last decade at about 35 per cent of the total revenue of the State. Our revenue account is wellbalanced even after providing for about Rs. 10 crores towards sinking funds. No portion of the open market loan will therefore be used for meeting the commitments on revenue account, but will be utilised solely for financing the developmental expenditure of productive nature. The plan for the current year is of the order of Rs. 106 crores, of which about 84 crores or nearly 80 per cent will be on capital account. We have proposed to spend Rs. 43.5 crores on power schemes. Major part of this expenditure will be incurred towards a crash rural electrification programme whereby we hope to give electricity to all the villages in the State by the end of 1971. We will be spending roughly Rs. 113 crores on water-supply and sanitation schemes besides Rs. 5 crores on housing and slum clearance and Rs. 25 crores on providing medical facilities, etc.

I have taken this opportunity to dwell at some length on the broad features of our economic policy and the programme we have drawn up for the development of our State so that you may be convinced of the soundness of the economic*development of the State.

Commercial Banks

SOME TIPS TO BANKS

By N. HARI BHASKAR, I.A.S., Director of Agriculture

The guarantees provided by the Government of Tamil Nadu, have enabled some commercial banks to extend their operations in rural areas for financing small, farmers, with varying degrees of success. Success of this venture depends upon extension of such credit, with the accent more on the purpose than on the person. The banks should be able to devise production credit for inputs, equipment credit for tractors. pumpsets etc. and development credit for preparation of soil, digging wells etc. In short, the agency. capable of providing the farmer both long-term and short-term credit will win his confidence most.

The procedural plan for a bank's rural operation can be as follows:

Appropriate block authorities, (Community development, agriculture or co-operative), should issue a pass book to each farmer, containing the following information:

a) Irrigated and non-irrigated land; area and approximate value; owned and leased; the part which is unencumbered and to which the farmer has clear title, duly authenticated by local reyenue authorities.

- b) Other immovable property, nature, approximate value and the part which is unencumbered.
- c) Important movable capital goods e.g. tractors, irrigation pumps etc., nature, approximate value and the items which are unencumbered.
- d) Total agricultural produce in the previous year, quantity and approximate value.
- e) Credit requirements recommended, if any, by the block authorities in the previous year.
- f) Annual credit limits (A.C.L.), if any, fixed by the Co-operative authorities in the previous year.
- g) Loans outstanding at the end of the previous year, short-term, medium term and long-term.
- h) Main inputs included in the crop plan and A. C. L., if any, recommended by the block authorities for the ensuing agricultural season when these have been worked out.

On the basis of this pass book, the local commercial banks and co-operatives will be able to decide how much loan and of what kind they can provide to the farmer concerned. They may carry out such other supplementary investigations as they may like. But the existence of such a pass book will greatly facilitate their work and help them in taking prompt decisions. There should be space in each pass book for the bank to note the credit limit or loan that they have agreed to grant each season.

Overdraft provision

Irrespective of any credit limit that may be fixed by a bank on the basis of the above information, any farmer opening an account with the bank and agreeing to deposit the sales proceeds of the bulk of his produce in his account in the first instance, should be entitled to an overdraft limit determined in some simple manner. For instance, the farmer may be told that & or 1 of the average amount deposited in his account during the first two months (to be prescribed) after the main harvest, will be available to him as his lower overdraft limit during the rest of the season. Higher overdraft limit may be fixed where necessary by taking into account his assets and creditworthiness as revealed by the pass book.

(Contd. on Page 35)

VIEWS OF A BANK

"Having entered the field of agricultural financing at the behest of and with guarantees provided by Government, we now find that we can do it on our own", said a top official of one of the six banks which was offered an exclusive area · of operation for financing agriculture, under the State Government Guarantee Scheme, Under the scheme which was put through in . September last year, some leading commercial banks were asked to undertake agricultural financing. each in a separate district, with the Tamilnadu Government standing surety against loss of either capital or interest.

The bank official admitted that in

all their 60 years of existence, they had not exploited this field. Having entered the field, the bank had gone about its job efficiently, by creating its own agricultural cell to keep abreast of agricultural patterns, assess production possibilities under each category of improvement or modernisation to examine loan proposals and to ensure proper utilisation of credit. "Just as the commercial banks have familiarised themselves with industry and business, and have trained men to deal with them, it is natural that we should have a special cell to deal with agriculture," he declared. As every bank has such a cell, in course of time, he felt, that the agricultural cell in each bank would he able to provide a sort of extension service to the farming community, with well worked out crop manuals, project plans etc., besides assessing and providing credit. This by itself would prove that "we are right earnest to shoulder the responsibility cast on us", he added.

After working the Government sponsored scheme, the bank found that ryots preferred to approach the bank direct. After accommodating some claims, with practically no defaults or deferred payments, the bank has devised its own scheme outside the pale of Government guarantee. to finance farmers. From the experience so gained the bank official felt that his bank would go it alone, if only there was a " marginal increase in interest rate." He was sure that by this means not only would more banks be attracted to the rural areas, but that the agriculturist would be benefited by a more prompt and efficient service.

Some Typical Schemes

In the agricultural sector, the bank has the following schemes: Short term production loan for purchase of seeds, fertilisers are sanctioned up to Rs. 5000/- on hypothecation of the crop only. Medium term equipment loans payable in 3 to 5 years for purchase of machinery items including tractor comprises the second scheme. The loan amount is paid direct to the dealer on hypothecation of the machinery purchased. The third scheme is the medium term development loan payable in 5 or 6 years on mortgage of land. Branch managers are authorised to sanction up to Rs. 5000/- for purpose of expeditious disposal. The bank has also devised schemes to help fishery and poultry rearing industries, but they have not yet been put into operation. The bank has also taken on hand the task of training personnel for these activities.

"If the banks enter the agricultural sector in full swing, very soon they will find that the scope of their operation is limited, because they can only finance the owner cultivators whereas 30 per cent of lands in Tamilnadu are under tenantcultivation. It is the latter who need the credit very much and on fair terms. As the absentee landlord is getting a very uneconomic return when compared to land values, it will not be a difficult proposition to help the tenant to purchase the land. With the help of the Agricultural Refinance Corporation, banks may be in a position to advance loans repayable in 10 or 12 years, to tenants for purchase of lands cultivated by them," said the bank official. It was a cogent argument for an orderly revolution.

Recovery Proceedings

Every loan is based on the premise that it will be repaid, if not recovered. As far as his own bank's experience was concerned, in no case recovery proceedings had to be resorted to. "But." he went on, "banks are only custodians of the public money and as such, recovery of the advances should get as equal an emphasis as is required when the loans are advanced." expected Government to put commercial banks on a par with co-operatives in the matter of proceedings recovery instituted against agriculturists. He concluded thus: "As the lending policies of the banks including the rate of interest are subject to regulation by the Reserve Bank, in public interest, it should not be difficult for the State Government to extend commercial banks the privileges available to the co-operative sector.".



WELFARE SCHEMES FOR A HIRIJANS & BACKWARD CLASSES

The practice of untouchability which was the cause of the melancholy state of existence of the depressed classes of our country in the past has been forbidden in practice in any form by the Constitution of India.

The abolition of this practice is a landmark in the social development of the country for which the nation is in no small measure indebted to the leader of the Nation, Mahatma Gandhi

Mahatma Gandhi's campaign against untouchablity was probably unrivalled for the vigour with which it was conducted. By securing the modification of the British Prime Minister Ramsay Mac Donald's Communal Award of August 4, 1932, Gandhiji saved the Hindu society from the danger of dismemberment.

The intensity of Mahatma's feeling on the question of Harijan uplift had a decisive influence on the Constitution makers who included the abolition of untouchability in the Fundamental Rights of the Constitution.

The Directive Principles of State Policy and down that the educational and economic advancement of the scheduled castes and other weaker

sections of the community is the special responsibility of the State. In addition, the Untouchablity (Offences) Act was passed in 1955.

Since Independence, the liberation of the Depressed classes from their social and economic bondage claims the magnitude of State policy which has the unqualified support of enlightened opinion in the country.

The Removal of Civil Disabilities Act, 1938 (as amended in 1947) which is intended to remove all disabilities imposed on Harijans by social custom and usage and the Temple Entry Authorisation Act, 1947, which has thrown open all public temples in the State to Harijans for worship—Tamil Nadu can justly be proud to have been the forerunner of the Constitution of India in this respect.

Tamil Nadu has been in the forefront in taking effective steps in the abolition of untouchability. Firstly Periyar Thiru E. V. Ramaswamy is the most notable leader who fought relentlessly against the social evils of the day. His follower and founder of the Dravida Munnetra Kazhagam and the late Chief Minister Arignar Annadurai, took up the cause of the upliftment of the people of backward classes, as his sacred duty. During his regime as Chief Minister he legalised self-respect marriages and set up awards for Harijan-non-harijan inter-caste marriages. Harijans were given a number of concessions like interest-free loan upto Rs. 5,000 for those who wanted to start small industries.

Following his foot steps faithfully the present Chief Minister Thiru M. Karunanidhi is contiming his ideals and policies in the matter of the upliftment of backward communities. In this realisation, the tempo of implementation of the schemes evolved for the uplift, prosperity and welfare of the Scheduled Castes, Scheduled Tribes, Denotified Tribes and other backward classes, which were very dear to the heart of "Anna" will be kept up and pursued besides chalking out necessary new programmes.

THE BACKWARD CLASSES COMMISSION

The Backward classes constitute roughly 65 percent of the State's population. In G. O. Ms. No. 842, Social Welfare Department dated 13–11–69 the Tamilnadu Backward Classes Commission was appointed:

To review measures so far taken by the State Government for the



Thirumathi Sathyayani Muthu, Minister for Harijan Welfare

Welfare of "Backward Classes" and the betterment of their conditions and assess the effectiveness of such measures in improving the conditions of backward classes and in particular in matters relating to education and representation in public services of the State.

In addition the committee has been asked to examine and assess with reference to concesssions, privileges and benifits given to them by the State Government, the improvements in the conditions of the "Most Backward Classes" in education and other matters.

After making the above assessments the Commission may make recommendations as to the further steps that should be taken by the State Government to improve the the "Backward of conditions Classes" and "Most Backward Classes in respect of:

- Education, including reservation of seats in professional colleges and institutions of higher learning,
- representation in Public ser-
- iii) trade, commerce and industry,

- iv) rural credit, marketing and co-operation.
- v) housing.
- vi) grants, and
- vii) Community Development.

The commission may make recommendations in respect of short term and long term measures to be taken by the State Government for raising the level of backward classes and most backward classes.

Interviewed by a staff member of "Tamil Arasu". Thiru A. N. Sattanathan, B.A., B.L., Chairman, Tamil Nadu Backward Class Commissson said.

"The expectations of the people of the Backward Classes from the present Government are very high. There is a feeling that this Government will not fail to fulfil the wishes and hopes of the people who deserve encouragement for their uplift."

Answering a question about the definition of the Backward Classes he said those people who belong to lower and undeveloped classes who do not come on par with socially, and economically developed castes are to be classified as Backward. He revealed that it was very difficult to assess the improvement of these people since the census on castes had been stopped since 1921.

"The description of Backward Classes is mainly based on castes and that cannot be helped," he added

The Commission's tour in districts to elicit information is almost over "The writing of the report will take more time. We have received good response to our questionnaire and a lot of statistical details from various departments have been obtained. However the report will be submitted to the Government by the end of September", he said.

Since Independence greater attention is being paid by the Government for the amelioration of Backward Classes. Increased Provision is being made in the State budgets educational and advancement of the " Depressed Classes". We can justly be proud to say that Tamil Nadu stands as a model to other states in implementing such beneficial schemes.

The following figures will show the expansion of the development schemes.

D.........

1 ear	Fron	rovision	
1946-47	36	lakh	
1966-67	450	,,	
1957-68	455	,,	
1968-69	472	,,	
1969-70	529		



Thiru N. V. Natarajan, Minister far Backward classes distributing pattas.

PROTECTED WATER FOR ALL MUNICIPALITIES

With the specific objective of providing protected water supply to all the municipalities and important panchayats before 1972, the Government have constituted a single agency, The Tamilnadu Water Supply and Drainage Board.

The provision of protected drinking water to the people is one of the fundamental obligations of a civilised government. The stupendous nature of the task naturally eluded the grasp of the Government. In addition, different departments of the Government were responsible for the provision of this basic amenity in different areas.

With the provision of protected water supply many of the health hazards such as communicable diseases can be easily eradicated. Substantial spending through successive five year plans had not touched the fringe of the problem. At least for the effective implementation of sanctioned schemes for water supply and drainage, the constitution of a single agency had become necessary.

Seperate Board

The Government decided that the work in regard to the implementation of water supply and drainage schemes in respect of all municipalities and panchayats should be under the control of a single agency. Accordingly the "Tamil' Nadu Water Supply and Drainage Board" has been constituted.

The Board will be made an autonomous body. There is no parallel enactment in this country which provides for the creation of an autonomous body charged with the responsibility of providing water supply and drainage facilities for

the entire State. The legislation proposed to be undertaken, in the nature of things, has to part-take of the character of a path finder. A draft bill is being finalised and it will be introduced in the Legislature shortly.

There are at present 11 municipalities, 5 townships, and 92 town panchayats (with a population of more than 10,000 as per 1961 census) without any protected water supply. Sewerage schemes are to be provided for 76 municipalities, 13 townships and 124 panchayats. The total out-

lay tentatively provided for in the Fourth Plan is only Rs. 12.50 crores, but the total requirements are to the magnitude of Rs. 130.00 crores.

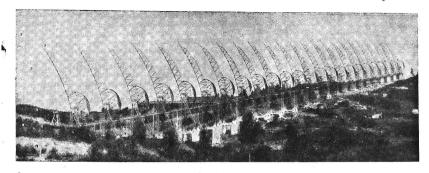
Therefore, the need for approaching the financial institutions for sizable assistance has been pressing. To begin with during the year 1969-70, the Life Insurance Corporation was approached for the sanction of loan in respect of 26 water supply and drainage schemes, Of these, 26 schemes, 21 related to

Contd. on Page 45

1.391.74

Total

S. No	o. Scheme	Estimated Cost
		(Rs. in lakhs)
1.	Madurai W.S. Imp. Scheme	17.00
2.	Ootacamund -do-	' 33.00
3.	Erode -do-	11.88
4.	Pollachi -do-	28.96
5.	Kovilpatti -do-	108.45
6.	Salem -do-	127.70
7.	Tambaram -do-	12.75
8.	Alandur W.S. Scheme	47.80
9.	Vaniyambadi -do-	27.51
10.	Chingleput W.S. Imp. Scheme	23.05
11.	Athur Water Supply Scheme	23.86
12.	Melvisharam -do-	13.87
13.	Trichy Drainage Scheme	285.00
14.	Madurai -do-	109.00
15.	Kancheepuram -do-	105.44
16.	Ambur Water Supply Scheme	40.00
17.	Tirupathur -do-	35.61
18.	Krishnagiri -do-	28.00
19.	Tiruvarur -do-	27.76
20.	Ramanathapuram -do-	37.41
21.	Kandayanallur -do-	30.00
22.	Tirukoilur -do-	11.45
23.	Kallakurichi -do-	9.95
24.	Vickramasingapuram -do-	27.95
25.	Perundurai Karumandichelli- palayam Combined Water Supply Schemes	42.45
	Chennimalai) supply sellentes	
26.	Coimbatore Drainage Scheme	126.19



Radio astronomers in India have been provided a new tool for studies in this field of science. A radio astronomer studies the Universe using radio waves, instead of the light waves used by the optical astronomer. At Ootacamund in the Nilgiri Hills, one of the most powerful radio telescopes in the world was commissioned in February this year. With the help of this telescope the outermost limits of the Universe can be studied, for the first time by astronomers. It was designed and built wholly by Indian scientists and engineers under the aegis of the Tata Institute of Fundamental Research, Bombay.

The Ooty radio telescope has a special design which utilizes the location of India near the geographic equator; this design provides for large gathering power and also sufficient steerability at a relatively low cost. The instrument has a reflecting surface which is 530 m.

long and 30 m. wide. It is about 4 times more sensitive than the 250 ft. (approximately 76.2 m.) dish at Jodrell Bank, England; but it is not a general purpose instrument like the latter as it operates in a fixed radio band of 324-329 mega-hertz only.

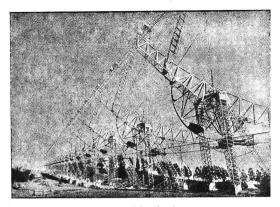
Tracking possible for 91 hours a day

The Ooty Radio Telescope uses a novel design. Its surface is in the form of a parabolic cylinder-like that of a long trough with a parabolic cross-section. Such reflectors provide large sensitivity or collecting area at a relatively low cost: they have been built elsewhere in the world, but they are not steerable in the east-west direction and so they cannot be used for tracking or following radio sources for more than few seconds of time. The axis of the instrument is kept parallel to earth's axis of rotation; this arrangement enables us to follow radio sources in the east-west direction for 9½ hours per day by a mechanical rotation of the reflectoralong its long axis. The beam of the radio telescope, or the direction in which it is looking, can be moved in the north-south direction by changing the lengths of interconnecting transmission lines. Steerability is achieved in both north-south and east-west directions.

Precise Pin-pointing of Radio Sources

The telescope is located on a hill that has a slope of about 11°. On this slope there are 24 equidistant, tall steel towers; and on top of each of these is mounted a parabolic frame; the two ends of each parabolic frame are 30 m. apart. The 24 frames span a horizontal distance of 530 m. These frames are connected together by 1100 stainless steel wires, each 530 m. long. The wires are parallel to one another and constitute the radio reflecting surface.





A close-up of the radio telescope.

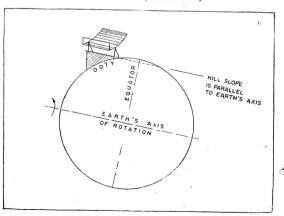
Radio waves incident on the surface are reflected on the 968 radio diploes placed along the focal line of the telescope and thence carried to a multi-beam receiver providing 12 simultaneous beams in the sky. The entire 530 m. x 30 m. surface can be rotated in unison through an angle of about 140° using complex electrical and mechanical fixtures-all designed and fabricated in India.

The design of the Ootacamund Radio Telescope was conceived to enable study of distant radio galaxies by the method of "lunar occultation". As the moon moves in the sky, its sharp edge eclipses radio waves from distant radio sources. A narrow source goes behind the moon's limb suddenly, but a broad source disappears gradually. As the moon moves away, the source emerges again. A record of this phenomena allows a very precise pin-pointing of a radio source and also provides information about the shape of the radio source. This technique is extremely powerful and gives resolution of better than a second of arc; it has not been exploited fully so far because of the lack of a sufficiently large and steerable radio telescope in any part of the world.

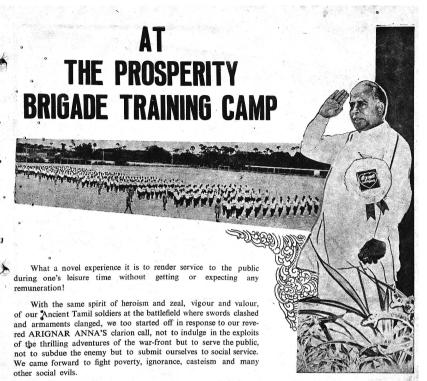
At Ooty, during the first 14 days of operation, occultation observations of 16 radio sources were made; 11 of them were objects which were catalogued by other observatories, but for which detailed structure data was not available: 5 of them have

been detected by us for the first time. So far astronomers have catalogued more than 15,000 sources, but detailed structure with resolution of few seconds of arc is available for only about 30 comparatively strong sources. The Ooty instrument is expected to observe several hundred new sources every year with resolution of about 1 second of arc. These observations will be compared with photographs taken with the 48" (approx. 1.2 m.) telescope of Mt Palomar Observatory to find the nature of associated optical emission. It is also planned to study the same objects with the new 48" telescope at Rangapur of Osmania Univer sity, near Hyderabad and with the 40" telescopes being installed at the Kodaikanal and Nainital Observatories. The data will be used for studying the origin and evolution of radio galaxies.

It is also planned to undertake a survey of weak radio sources in the southern hemisphere and to measure the declination of some of the already catalogued radio sources by (Cantd. on P. 30)



The slope of the site is equal to the latitude in the north-south direction.



The Engineering College at Guindy was the centre of our training camp. Memorable was the experience we had during those seven days of our training.

I was the leader of the Prosperity Brigade of the Park Town area in Madras. As a matter of fact, I was ill at ease at the thought of being trained and disciplined particularly by the police. Nevertheless, there arose an enthusiasm within me when I realised that the camp meant mingling with all the Prosperity Brigade volunteers for one week. Never would I get such an opportu-

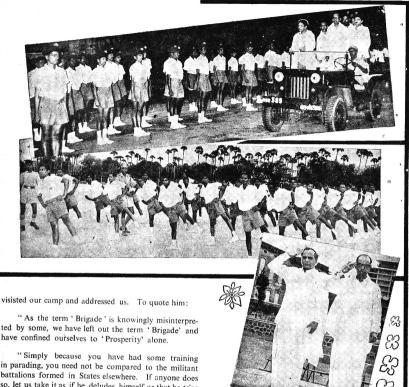
We arrived at the camp venue one day ahead. The camp was inaugurated on the 24th of May by Thiru Murasoli Maran, M.P..

We were trained in, and instructed on, fire-fighting, family planning, adult education, poultry rearing etc. We were enlightened on various subjects. The seven days passed as seven minutes, full of useful and pleasant experiences.

It was heartening news to us that Prosperity Brigade was held in high seteem by people in other States thanks to the disseminating prowess of Information service of the Central Government. We were also told that even in Bulgaria a journal had made complimentary mention of the services of the Prosperity Brigade to the people in Tamil Nadu.

Whenever anybody quoted from Anna's address to the Brigade, our eyes became pools of tears at the remembrance of his greatness that raised us in the estimate of others. "Let us dedicate ourselves to our duty and that is what he expects of us", thought everyone of us."

About a thousand Prosperity Brigade volunteers from North and South Madras were at the parade when our Honourable Chief Minister



ted by some, we have left out the term 'Brigade' and have confined ourselves to 'Prosperity' alone.

in parading, you need not be compared to the militant battalions formed in States elsewhere. If anyone does so. let us take it as if he deludes himself or that he tries to delude others.

"The objectives of this Prosperity squad as laid down by our revered ANNA are:

1. Service at leisure without remuneration. 2. Selfless public service. 3. Fostering self-respect and self-reliance. 4. Helping agriculture and Industry thrive. 5. Developing general knowledge and spreading diteracy. 6. Endeavour to promote social welfare. 7. Eradication of the evils of untouchability.

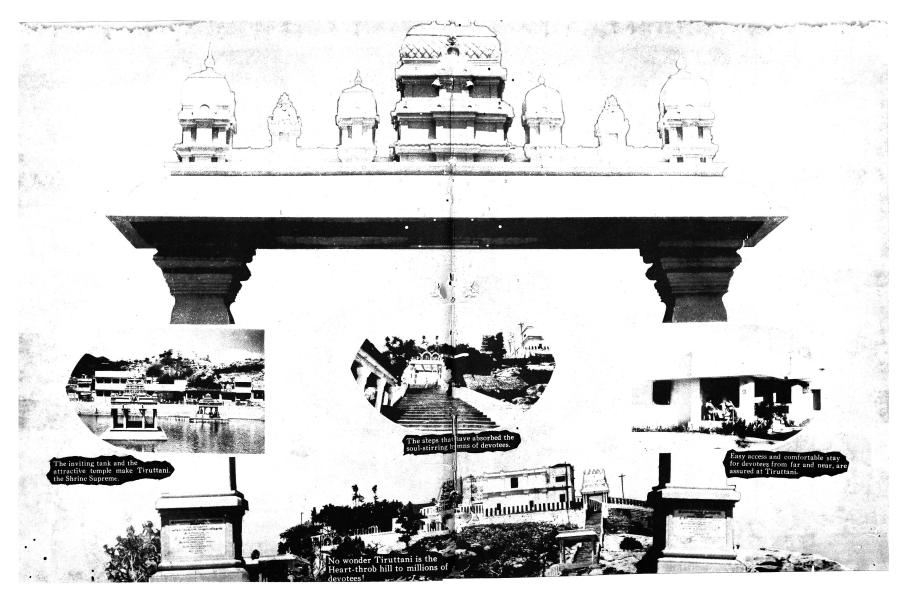
8. Protecting the destitute. 9. To do away with the social evils in a peaceful way. 10. Assisting all in the righteous way.

"The objectives are more than these and the list may be longer. We must be prepared to serve according to the needs of every contingency. No task should be too big for us.

"I wish that you should always wear the Brigade Badge so as to help the public identify you easily. At the risk of your life and limb you may rescue a child from a road accident. Then you can be identified

(Contd. on Page 39)







Chief Minister with Navalar and Thiru Mathialagan











TIRUTTANI

ATTRACTS PILGRIMS IN MILLIONS

. The sacred shrine of Lord Subramania at Tiruttani is one of the most inspiring temples of South India. The hill temple presents a magnificent view to tourists travelling by train and by bus on the highways, for miles around. The temple authorities have spared no pains to make the temple as attractive as possible to devotees from far and near. Pilgrims have been provided all facilities for convenient worship and comfortable stay. The motor road to the temple is the latest amenity, beautifully constructed by the Devasthanam with the help of the Public Works (Highways) Department. The road lay out is a master-piece of engineering skill and it connects the road to Tirupati. The sanctum sanctorum has been replenished most attractively and cement roads have been laid all round the temple. Electric lights blaze the temple, the Gopurams and the Hill and the whole scene presents a picture of Heaven on earth. Peace reigns on the Hill.

The most gratifying feature of the Devasthanam is that its funds are satisfactory, and the temple authorities with increased income are very anxious to provide more and more facilities to the worshippers, apart from all the requirements of the Deity. The provisions of the Madras Hindu Religious and

Charitable Endowments Act for diversion of funds for secular purposes have been availed by the Devasthanam to run an orphanage and a Beggar Home, A highly commendable venture of the Devasthanam is the establishment of a Library and Cultural Centre in the name of Dr. S. Radhakrishnan. former President of India, who gave as gift to the Devasthanam his ancestral house and a munificent donation for the purpose. Radhakrishnan was born in this house and "Dr. Radhakrishnan Library and Cultural Centre" is located there. Dr. Radhakrishnan gave also as gift to the Library a set of his works. The library is well maintained by the Devasthanam. There are about 5000 books, religious as well as other books. The library is popular and attracts a large number of readers. It has developed as a model library of religious works in Tamil for the benefit of research scholars and others. The Devasthanam is running a Thevaram Patasala. This is a humble attempt at religious training.

The Devasthanam has founded a college at Tirutani in 1970.

In addition, the Tiruttani Devasthanam is maintaining from its funds, six other temples in Tiruttani and six more temples in its environs including the famoas Shiva Temple at Thiruvalangadu. Some of the temples under the management of the Tiruttani Devasthanam are Vaishnava temples. Among the six Tiruttani temples, the Virattaneswarar temple and Arumugaswami Temple on the banks of the Nandiar, belong to the Pallava period and contain some outstanding specimens of monolithic sculpture.

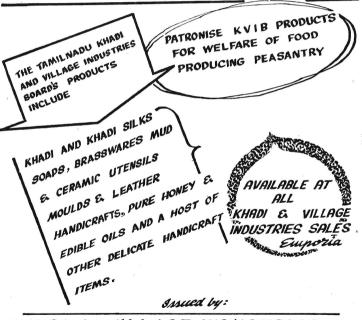
The devotees of Tiruttani hill temple contribute very liberally to its funds, the present income being of the order of Rs. 12 lakhs per year.

The month Adi in Tamil calendar (corresponding to mid-July and mid-August) draws the maximum number of devotees. Muthuswamy Deekshitar, one of the Musical Trinity of Tamil Nadu, had the manifest blessing of the deity here in the from of a candy. Thousands of groups singing hymns to Lord Subrahmanya make their way up the hill every year on 31st December night. Special trains are run to this station on these occasions.

Tiruttani is 86 k.m. from Madras via Red Hills-Trivellore or Poonamallee-Trivellore roads. The Railway station lies on the Broad gauge line to Renigunta. The town now constitutes the northern limits of the State.

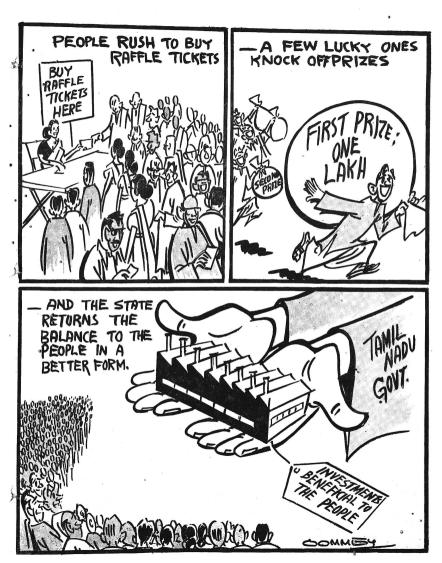
KHADI and VILLAGE INDUSTRIES

PROVIDE GAINFUL EMPLOYMENT TO FARMERS



KHADI & VILLAGE INDUSTRIES DEPT.

2, SIR DESIKACHARI ROAD MADRAS - 4.



(Contd. from P. 20)



other observatories. The instrument will also be available for studies of galactic objects, studies of radio emission from planets (particularly Jupiter), flare star and the sun.

More Discoveries forecast

A major programme has been started for detailed studies of the recently discovered pulsating radio sources (pulsars). These sources emit pulses of radio emission with a period accurate to one part in a million. So far only 50 pulsars have been detected by radio astronomers with periods ranging from a fraction of a second to a few seconds. It is believed that pulsars are associated with highly compact neutron stars which have densities of about billion times that of the earth and which rotate roughly once a second. Our instrument at Ooty is well suited to study them in detail and perhaps also for discovering many new pulsars.

The Ooty radio telescope represents a major facility in a frontier area of science. It can make a significant contribution to the training of young scientists in the country, who will either be able to use it for advancing fundamental knowledge in the areas of astrophysics and astronomy, or through their fraining, contribute to the contry's needs involving large antenna systems and associated electronics.

NEW ADDITIONS IN MADRAS MUSEUM

Three metal images, all crawling Krishnas, and a Vessel for storing oil. belonging to about the 16th Century from Raiagopalapuram Mayuram Taluk, Thanjavur District: three metal images Nataraja, Ganesa and Devi (the 13th & 14th Centuries) from Kothangudi, Thiruthuraipundi Taluk, Thaniavur District. five metal objects - Somaskanda, Pradoshamurthi. Devi and two lamps of about 14th Century from Kuhoor, Kumbakonam Taluk, Thanjavur District; and stone image of Durga of Pallava-Chola transition period, from Wandiwash Taluk, North Arcot District were added as Treasure Trove. Two wood carvings of Krishna with Gopis and Rama aiming arrow at Deer were purchased from Sri Damodaranaravna Perumal Devasthanam, Thaniavur District

Anthropology

One Gold thali, two gold pipes. one in two bits from Keelasethi Village. Mayuram Taluk, Thanjavur District; two gold ear-studs from Unnamalai Chetty Chavadi Village. Cuddalore Taluk, South Arcot District and one pair of gold belt bangles and one broken gold hair hanger, from Valayamadevi Village, Chidambaram Taluk, South Arcot District were acquired as Treasure Trove. Six neolithic celts were received on exchange from the Department of Anthropology Gauhati University, Assam. Four hundred and three antiquities bones. heads, iron and terracottas from the Nilgiris excavation were presented to the Museum by Thiru G. N. Das, Cuttack Orissa.

Numismatics

A Gold Congu Chera coin from Dharmapuri District and a silver

Caliphate coin from Mayuram Taluk, Thanjavur District were acquired as Treasure Trove. One set of proof coins issued for the Mahatma Gandhi Centenary was purchased from the Government of India, Mint, Bombay. One hundred and three silver and copper coins belonging to the Kushanas, Mughals and the Sikhs were received from State Museum, Lucknow as free distribution.

Zoology

Stuffed and mounted specimens of the Flamingo (Pheonicopterus) the Grey Heron (Ardea cineria) and the Tailor Bird (Ortaotomus sutorius) were added.

Botany

Two clumpy mushrooms were

Children's Section

Working models of two trains with the background of a German village set up and a suitable show case for exhibiting them were presented to this Museum by the Trade Representative of the German Democratic Republic in Madras. These are being demonstrated to the visiting public daily.

PALM LEAF KURAL IN COPENHAGEN LIBRARY

The Oriental Section of the Royal Library at Copenhagen (Denmark) which was established in the 15th Century, has 2,75,000 manuscripts and books in oriental languages including Tamil. There is also a palm leaf manuscript of the Tamil classic KURAL consisting of 133 leaves, with five couplets written legibly on each side of the leaf. This manuscript is 3 centuries old and is still in good condition.

EFFECT OF PARAMBIKULAM-ALIYAR PROJECT ON THE CULTIVATION OF GROUND-NUT IN THE AREA

With the implementation of the Parambikulam-Aliyar Project in the Coimbatore District, an area of 97,000 hectares spread over Pollachi, Udumalpet, Palladam and Dharapuram taluks are brought under irrigation. This will primarily give a fillip to the cultivation of groundnut, the most important commercial crop of the area. In Pollachi tract alone, groundnut commands an area of 40,000 hectares as a 'rainfed' crop. Sowing is done in in general, taking April-May advantage of the pre-monsoon showers. Later, with the onset of monsoon in June, the crop comes up well with a well-distributed rainfall and is harvested in July-August Nevertheless, the crop production is adversely affected often due to the *vagaries of monsoon. In this article, an attempt is made to bring out the beneficial effect of Parambikulam-Aliyar Project affording protection from monsoon

vagaries and also the scope for raising the crop all the year round and incidentally arrive at the profit by working out the economics of cultivation.

The normal rainfed season of the area extends between the pre-monsoon showers in April and the harvest in July-August with even distribution of rainfall in June The Parambikulam-Aliyar Project affords irrigation facilities not only between April to September but also between September to February on a zonal basis. Thus, a fair degree of irrigation potential to carry on cultivation practically all through the year is provided. The ryots who raise groundnut between April to September get assured irrigation for raising the crop successfully.

It will be worthwhile to compare the details of agronomic practices adopted in the area for the rainfed and the irrigated crop. The irrigated fields even with a meagre fortnightly irrigation fetch 700 kg. more per hectare than the rainfed crops in April-August period.

The special feature of Parambikulam-Aliyar Project is the assured irrigation for raising the first crop in the normal season during April to August and also between September and February as an irrigated crop. Eventually the enables crop production a success all through the year as contrasted with raising a single crop in the normal season, exposed to vagaries of monsoon and viscissitudes of environment. The exact benefit consequent on the assured irrigation potential work out to Rs. 952 per hectare

The initial ayacut of 97,000 hectares gives the area an additional income of about Rs. 80 lakhs per year, because of the Parambikulam-Aliyar Project.



Agreement between Kerala and Tamil Nadu for rhe Parambikulam-Aliyar waters being signed



Assignment of land for cultivation purposes as also for use as house-sites has been implemented with vigour during the past three years in Tamilnadu. The scheme was initiated at the behest of the late Chief Minister Anna who saw in it the posibilities of a bloodless socioeconomic revolution. In continuing this policy with enthusiasm and increasing tempo Honourable Chief Minister Karunanidhi feels that the poor must seek to appease their land needs only with the active assistance of law. The policy of assigning lands to the poor landless peasants will be made applicable to lands declared surplus as a result of the new land ceiling Act also.

The manner in which the ceiling on land was announced by the Government would indicate that it will be effective and beneficial to the people.

The previous land Ceiling Act limiting possession of land to 30 acres only was passed after a long period of talking much about it in the public. Taking advantage of this long interval between word and deed, the landlords distributed lands among their relatives and cunningly escaped the ceiling act making it null and void. This was described by Anna as a "surplus-ceiling" act instead of land-ceiling act. Taking into account the outcome of the previous land ceiling act, the present Government fixed the ceiling at 15 acres, and enforced it with impartiality by announcing it abruptly. The landlords now are unable to evade the clutches of the present ceiling act.

Elucidating the 15 acre ceiling act and enumerating the benefits to the public, Chief Minister Thiru.

M. Karunanidhi spoke as follows:

"Of the total population of 4 Crores of Taminadu, only about 30,000 will be affected by losing their extra land-holdings. If a person possesses 17 acres, 2 acres will be taken over by the state, and if 30 acres, 15 will go to the state.

"If an average surplus land of 6 acres per head could be had from the land-lords the total surplus land from all the 30,000 land-lords would come to about 2 lakhs of acres If the surplus land is distributed at the ratio of one acre per head, 2 lakhs of the suffering masses would be benefited. The landless poor would come to own some land. It is envisaged the surplus land to be

Name of the District		Area of land distributed for Huuse-Sites in acres		
		1968-69	Upto March 1970	
Chingleput			3,975	9,678
North Arcot			4,474	11,818
South Arcot			5,903	22,996
Tanjore			770	11,034
Tiruchi (***	936	16,426
Madurai			316	3,537
Ramnad			37	661
Tirunelvely			1,143	1,201
Salem			789	3,224
Dharmapuri			54	3,484
Coimbatore		***	2,799	9,413
Nilgris			92	_
	Total		21,288	93,472

Name of the District		Area of land distributed for cultivation in acres		
		1967-68	1968-69	1969-70
Chingleput		1,971	1,384	13,271
South Arcot		3,867	8,477	15,269
North Arcot	•••	6,727	12,405	15,752
Tanjore		400	348	11,810
Tiruchi		2,207	3,932	18,689
Madurai		1,047	1,665	16,259
Ramnad		2,065	11,179	24,904
Tirunelvely	•••	626	1,241	26,695
Salem		1,947	6,714	11,621
Dharmapuri		1,120	3,802	11,150
Coimbatore	1434	853	704	10,394
Nilgris		16		_
Total		22,847	51,852	1,55,813

CLIMATOLOGY AND METEOROLOGY IN INDIA

by K. N. RAO.

Deputy Director-General of Observatories (Climatology and Geophysics)

'Meteorology, the study of the atmosphere, is part of human culture, which has applications in almost 'all aspects of life and work. A major branch of Meteorology is Climatology, 'which connotes a study of the synthesis of weather and its changes.

Climatology is derived from the ancient Greek word "Klima", meaning incline; it deals with similarities and variations of weather from time to time and place to place, resulting from the sun's movement.

CLIMATE is an invaluable natural resource. It has innumerable applications to every human activity. Aviators need synthesised ground and upper air information for airport layout and economic and efficient, air-route and schedule planning. Design and operation of multi-purpose hydel projects for water resources management and

food production require processed, long-term rainfall records. Industry demands climatological specialisation for siting, lay-out, air-conditioning, heating and lighting for profitable operation.

Competitive maritime commerce calls for information of average weather conditions over the neighbouring seas for safe and optimum routing. Micro-wave towers of the Railways, port installations, tele-communication and power line layouts, bridge and tall structures have to allow for safety weather tolerance and must yet be economical. Town planning, urban housing, development of health resorts, refrigeration and a variety of personal comfort undertakings need climatological service for beneficial out-turn.

For strategic and tactical planning during emergency and war, weather history and climatological studies become imminent.

The meteorologist needs data of averages to assess departures of elements for daily forecasting. He requires also processed data in the form of averages, frequencies and variability to meet the manifold demands of public and private bodies.

A very important aspect of climatology is the Agrometeorologists' requirement for study of crop relations, optimum land utilisation, crop patterning and protection from plant pests and diseases. And significantly, Economists, Planners and Administrators need advance information, specially on probable occurrences of prolonged deficiencies in rainfall, droughts, and their impact on food production.

The Agency for meeting these demands is the India Meteorological Department. Organised in 1875, the Department's primary objective

(Continued from previous page)

distributed should be cultivated on a co-operative basis."

Under the land assignment scheme of the State Government, 2,65,000 acres of land will be distributed among the landless poor and the Harijans before the end of the year 1972. The total area of land to be distributed to the poor is 4,34,000 acres. In the year 1968-69, 21,288 pattas for House-sites have been distributed to the poor, and, between 1969 and 1970, the number of pattas distributed came to 93,472.

The area of cultivable land distri-

buted to the poor in 1967-68 is 22,847 acres. The target of distribution during 1968-69 was 50,000 acres; and for 1969-70 the target was 1,00,000 acres. The target has been reached.

According to the statistics given by the Revenue Department the area of land to be alloted for cultivation is 4.34 lakh acres, including 3.63 lakh acre of poramboke lands. The Board has recommended the distribution of 1.45 acre lands to the landless and this recommendais being considered by the Government.

In the districts, 51 units of special officers are functioning for assignment of lands for cultivation.

Having taken into account social justic, and the rights of the tillers of the soil the present Tamil Nadu Government have passed legistations to settle the wage disputes of the Tanjavur tanants, and to get particulars about tenants in Pudukkottai, and for the registation of tenancies. The Finance Minister recently announced that a broad-based land reform act is being envisaged by the Government.

is a "systematic study of the weather of India as a whole and the application of the knowledge thus acquired to the issue of storm and other warnings and daily weather forecasting."

In the early part of the twentieth century, the network of surface and upper wind observing stations for collection of information of the atmosphere gradually increased. During World War II, to provide meteorological support to military operations of Allied Forces in India and South-east Asia, significant expansion took place in observing net works.

In the twenty-five years after the war, national development has resulted in a further spectacular growth of a network of observatories. The Department now has 465 observatories recording surface meteorological observations of atmospheric pressure, temperature, humidity, wind, rainfall, cloud cover, etc. Several of these observatories are managed by part-time observers.

Upper-Air Observatories

A network of 54 upper air observatories record wind speed and direction at various levels above the ground with gas-filled balloons. Sixteen of these observatories, equipped with special instruments, provide information on pressure, temperature and humidity in the upper atmosphere through radio soundings. In addition, rainfall observations are received from 4000 rain-gauge stations in India, maintained by the States.

Climatology provides a broad frame-work of the amount and pattern of distribution of rainfall and other meteorological elements over the country, so basic for agriculture. But, in an era of increasing population and in a land of uncertain monsoon rainfall over vast tracts, intimate scientific knowledge

is needed on the relation between weather and plants for abundance and self-sufficiency in agricultural produce.

Successful crop growth depends on water availability in the soil and sunshine. The plant loses water through transpiration, which is greatest when it is hottest. Also, part of the rain that falls is lost by evaporation. Pests and diseases affecting plants and stifling production are also weather-bound.

Plant Climatology

Special attention to plant climatology is paid by the Agricultural Meteorology Division of the Department, also located at Poona. The Division was instituted in 1932, almost about the same time when many other countries commenced similar studies. Climatic conditions near the ground and physical characteristics of soils and their influence on plant growth engaged its attention in the early years.

The next major step was to set up specialised meteorological observatories in a crop environment within and near agricultural fields, as opposed to observations recorded in and around cities. A co-ordinated Crop-Weather Scheme was organised in collaboration with the Indian Council of Agricultural Research to develop a plant-environment climatology.

We now have a total of 137 Agrometeorological observatories in India. A well-equipped Central Agrometeorological Observatory was set up in the Agricultural College, Poona in 1936. Concurrently, liaison was established with Agricultural authorities at the Centre and in the States to make qualitative assesments of the agriculturists' requirements of weather advice at various stages of crop growth.

Preliminary Crop-Weather Calendars were evolved, setting out

weather tolerances and warning requirements in terms of temperature, excess rainfall and its deficiency. The farmer requires advance information not only for today and tomorrow but also for longer periods, commencing from sowing to harvest and storage.

The first break-through in reaching the farmer was the commencement of issue of daily weather forecasts by Regional Meteorological Centres in July 1945, the year in which they were organised.

Growing population and urbanisation have been making continued demands on the country for optimum and utilisation to boost agriculture and enhance food production. Multi-purpose Projects of the early fifties brought larger areas under irrigation. Despite this, 80% of cultivable land still continues under rain-fed conditions.

The Agricultural Planner needs information on loss of water through natural causes, of which evaporation is the most important in warm, tropical India.

Vegetation itself takes away some more water. In an effort to assess water requirements of crops on a scientific basis, the Agricultural Meteorology Division embarked on collection, compilation and studies on evaporation and evapotranspiration. Field experiments for making measurements of evapotranspiration, the first of their kind in India, commenced in Poona in 1954

Water Balance Map of India

Plans are on hand for a signifi-cant expansion of the above network during the Fourth Five Year Plan, in collaboration with Agricultural authorities to compile material for a Water Balance Map of India.

SAVINGS BANK TYPE ACCOUNTS

(Contd. from P. 14)

The so called cheap money policy should not be followed so far as the rural areas are concerned. The cheap money policy only favour the few who are lucky enough to get loans. It discourages thrift, inhibits the growth of loanable funds and adversely affects the interests of millions who are denied credit today. What the Indian farmer requires is adequate and prompt credit rather than more cheap credit. If he gets adequate and prompt credit it should be an economic proposition for him to pay 15 per cent interest on bank loans as is done by the farmers of Jaspan and Taiwan. A rate of interest of this order on loans should induce a farmer to make more economic and efficient use of the funds that he may borrow. It would enable the bank to make the margin between its lending and deposit rates sufficiently large so as to bear the additional risk and service *cost which a policy of providing adequate and prompt credit may entail. It would enable the bank to pay a sufficiently attractive rate of interest on deposits which would induce the farmers to keep the bulk of their financial surplus in the bank even if for short periods rather than keep it in cash at home. This would be a sure way of activising the idle money in the agricultural sector.

It will be advisable if the accounts opened for farmers are of the savings bank type. The attraction as well as usefulness of such an account will increase if an overdraft limit is attached to it in accordance with the procedure outlined above.

There should be a basic rate of interest of 3½% to 4% per annum on the minimum balance during each calendar month. There will be an additional interest of 2 to

3% on the minimum balance during each quarter. In Japan and Taiwan the overall rate of interest on similar deposits in rural areas is 7-8%. It will not be possible to spread the banking habit in our rural areas unless the rate of interest on deposits in rural areas of India is brought to a comparaable level. The basic rate of 31 to 4% and the additional rate of 2 to 3% on deposits will enable us to approach the Japanese system without a break from our present system. It may be suitably adjusted in the light of experience later.

So far as the rate of interest on loans is concerned, it is 15—18% in Japan and Taiwan. In India it should be fixed at a basic rate of 15% per annum with a provision of rebate of 3% if it is repaid within two months of the, main harvest. The actual rates may be varied from region to region and from one type of loan to the other type according to the need and experience.

It would help the programme if in each block there is an advisory committee comprising the local Bank Manager, Block Development Officer, Revenue Officer, Co-operative Officer and the Agricultural Extension Officer which should meet regularly once in a month.

RURAL ELECTRIFICATION IN TAMIL NADU

The total number of towns, villages and hamlets elecrified during March 1970 was 364 and their total number as on 1-4-1970 was 34,531.

The total number of agricultural pumpsets given power connections during March 1970 was 4,783 and on 1-4-1970 their total number was 4,69,224.

HARIJANS TO GET MORE LAND

The order of priority in the matter of assignment of lands for cultivation purposes has been revised following orders of the Chief Minister at the collectors' conference in June 1970 so that the scheme benefits the landless poor Harijans to the largest extent. The priority for Harijans has been fixed next to serving and ex-military personnel.

In villages containing considerable extent of land available for occupation, specific areas have been set apart for assignment for cultivation to the Scheduled Castes. As there has been poor response in claims for assignment by the Harijans, the Government issued the following instructions in Decemer 1968:

A list showing survey numbers and the extent of the lands reserved for Harijans should be displayed on the notice board of the local Panchayat and the village "Chavadi", if any, and also in the office of the Welfare Officers so that the Harijans, of their own accord or through some educated persons known to them, may apply for such lands.

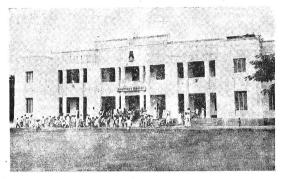
All the encroachments by non-Harijans on lands reserved for Harijans should be evicted.

In future, wherever there are encroachments by non-Harijans on lands reserved for Harijans, encroachments should be evicted during the same fasli.

Even in respect of assignment of lands in the non-reserved area, the Harijans are to be given preference over other landless poor persons.

THE CHILDREN'S THEATRES IN THE STATE

PROCESS OF EVOLUTION



Children's Theatre, Madras

I am glad to visit the Children's Theatre (at Vellore) during my stay at Vellore. The Theatre is doing good work and is showing films for the Children. It has the greatest educated value. I wish the efforts of Tamil Nadu Government every success. (Sd.) V. V. GIRI.

10-5-1970

So wrote the President of India. Dr. V.V. Giri, in the visitor's book for whom some special shows were arranged at the Children's Theatre, Vellore (North Arcot) during his recent visit there. The theatre named after our beloved ANNA as ANNA KALAI ARANGAM is becoming popular among the Children of Vellore town and the surrounding areas for nearly a year now. The theatre fulfils a long-felt need of this town for a drama theatre and a number of engagements are held every week. Situated in the central part of the town, it has all the advantages of transport, nearness etc. to the people. Children's film shows are conducted regularly here as at Madras on all days in the month.

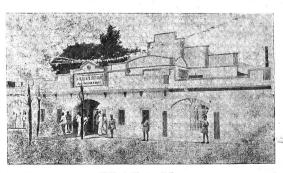
The Children's Theatre at Madras will complete twelve years as on September, 1970. It has become the centre of attraction to the Children of Madras City and the surrounding areas. Recently it has added an additional attraction of Cinemascope screen and projection. The change over to cimeascope from May 1970 has helped the Theatre to get good and varied films specially suited to Children.

These two Children's theatres are unique in the whole of India for they are the only two Institutions run by a State Government successfully. Thus Tamil Nadu has a lead over other States in this filed also.

It is now proposed to develop the present Children's Theatre at Madras as Children's Recreation Centre with facilities for a Children's Library, Children's Museum, Children's Art Centre, Playground for Children etc. When this dream comes true, it will be a boon to the Children of Madras City and may also serve as a model for other such institutions.

In modern education, the integrated development of the child is given all importance, and as our President has remarked above, the film plays the greatest educational value to them.

There is a proposal before the Government to convert the Children's Theatre like the famous Shanmughananda Hall at Bombay...



Children's Theatre, Vellore (Anna Kalai Arangam)

Local Government in ANCIENT TAMILLADU

By K. VENKATASUBRAMANIAN, M.A., B.T., Joint Director, Education Rural Development

Government in ancient Tamil Nadu was not a highly centralised monarchy. The Kings, the crowned monarchs, were then ruling in the east, the south and the west: and their Government was supplemented by the rule of petty chieftains who functioned at a lower level of sovereignty in different and distant parts of the Tamil country. . The Kings and the feudatory chieftains contented themselves with the general maintenance of peace in the country and collection of revenues for general administrapurposes. Local Adminitive stration was left to the villagers themsevles normally, because it has been the Tamil tradition all along to permit the local people to order their own affairs. Government by means of primary assmeblies, comprising the adult males of each village, was the central feature of Rural organisation. From the many Chola inscriptions that have come down to us, we see that under the Cholas the villages of Tamil Nadu were full of vigour and strength.

The villagers ran their own administration through the councils of elders whose title for such office was automatically recognised and accepted. Age, Education, experience and a responsible station in life, among other things, provided the requisite qualifications for these citizens who took upon themselves the responsibilities of local self Government, and obviously for no remuneration. Any one with the requisite qualification and capa-

city for service, if selected by lot, should undertake the work and the term of office was also restricted for a specific period. Enough care was taken thereby to see that no one was permitted to continue indefinitely or endlessly in an office frustrating the younger generation.

Most of the civil and criminal litigations of the locality were disposed by the village elders; though breach of the peace or rebellion against the King, naturally constituted major offences and attracted royal attention. Thus the elders in the village took a lot of administrative burden off royal shoulders and constituted the highest local authority.

Professor K. A. Nilakanta Shastri would draw our attention to the remarkable similarity between the position of the townships in Chola Empire and that of the cities of Gaul in the Roman Empire.

There were all kinds and sizes of urban and rural residential or trade centres; the Ports were called "Pattinam" (பட்டினம்) the large towns were the "Perur" (Guesti); and the villages "Sitrur" (சிற்றூர்); the suburbs in cities were "Pakkam" (பாக்கம்), literally 'a neighbourhood', collections of houses were "Cheris" (G#fl). Most of these places were connected by simple though major centres like Puhar and Uraiyur, or Uraiyur and Madurai, or Madurai and Vanji were connected by trunk roads. Though the villages were mainly centres of agricultral activity, other callings also flourished. The village blacksmith, the mason and the carpenter were not less busy than the farmer. It is presumed that when the decisions of the village elders were disapproved by any, the latter could appeal to the royal court in the capital for redressal of rejevances.

Thus Panchyat Raj or Civic Administration is not new to Tamil Nadu. Even in ancient times there was Panchayat Administration in villages and towns attending to their civic needs. It will be surprising to note that even in that dim past the administrative bodies of Local Administration were elected and not nominated by the rulers.

. When the Pallavas took over the Government of the Tondaimandalam and Cholanadu, early in the 7th Century A.D., this sytem of Rural Government was continued. The accessions of more power and greater responsibilities to growing monarchies, inclined them more towards leaving local Government to the local people.

With the accession of the imperial Cholas to power in Tamil Nadu, in the 10th Century A.D., we see the full-flowering, of the village administrative unit as a semi-autonomous institution clothed with considerable local power. A large number of epigraphs of the Chola period (10th to the 13th certury A.D.), reveal the true nature of village administration in those medie-

val times. There were three kinds of village assemblies, the Ur (assir) the village assembly in which all communities took part: the Sabha (συπ), the assembly of the Brahmin free-holders in the village granted, rent free to them; the Nagaram (நகரம்) the assembly of merchants looking after commercial affairs. The word 'Nagaram' also was used to denote the quarters or villages where merchants lived. The civic administration reached its zenith during the Chola period in Tamil Nadu. An unusually full account of the functioning of one of these village assemblies is detailed in the inscriptions obtained from Uthiramerur near Madras

During the period of Paranthaka Chola, a royal order was inscribed on the temple walls of Uthiramerur and this gives full details about the manner in which the civic bodies functioned and how elections were conducted for these bodies. Even then there were ward divisions in the towns and each ward elected its own representatives. The elections were conducted by drawing lots. The lots were drawn by writing the names of the persons who were qualified to be elected on palm leaves and put in a new mud pot. The lot was drawn by asking a young child to draw a plam leaf card. The number of palm leaves required were drawn out and the names read out in the open, and these persons so elected consituted the Panchavat for the period. The council elected its own committees for discharging specific Separate committees functions. were constiuted to look after the lands, water sources, finances, travellers etc. They assembled in the village temple and held their deliberations. One of the committees adjudicated the criminal and civil cases in the village.

The Chola Kings held these village bodies in high esteem and never normally interfered in their administration and as such these bodies enjoyed full autonomy in their sphere of administration.

Committees for various purposes were constituted on a sensible basis of conference and the division of official work among these committees and the simple electoral system involving choice and vote are all mentioned in great detail, in the Uthiramerur inscription. An English translation of the Uthiramerur inscription is given as an appendix. This inscription is remarkable for all the details it contains regarding the mode of election to village assemblies. Their ideas of qualifications and disqualifications appear most sensible and modern. If this represents the general nature of rural administration in the Urs as well as the 'Sabhas', they must have saved the emperor, functioning from a distant capital, a lot of administrative worry.

Even ten centuries before, Tamil Nadu enjoyed the fruits of an administrative set up of the people, for the people, by the people, in their own way.

The village Panchayats of the present day have survived several onslaughts throughout centuries and hence the tradition is being easily revived and strengthened to-day and the people at large are called upon to share the duties and powers of local Government in an increasing measure.

EXTRACTS FROM UTHIRAMERUR INSCRIPTION

KING: King Parakesarivarman, who conquered Madurai.

DATE: On the sixteenth day of the fourteenth year.

ROYAL ORDER: Whereas a Royal letter of His Majesty, our Lord, the glourious Viranarayana, the illustrious Parantakadeva, the prosperous Parakesarivarman, was received and was shown to us.

THE VILLAGE: We, the members of the assembly of Uthiramerurcaturvedimangalam in its own subdivision of Kaliyurkottam.

OFFICER PRESENT: Karanjai Kondaya — Kramavittabhattan alias Somasiperuman of Srivanganagar in Purangarambainadu, a district of the Chola country.

settlement: Sitting with us and convening the committee in accordance with the royal command, made a settlement as follows according to the terms of the royal letter for choosing once every year from this year forward members for the "Annual Committee", "Garden Committee", and "Tank Committee".

WARDS: There shall be thirty

QUALIFICATIONS: In these thirty wards, those that live in each ward shall assemble and shall choose for "Pot-tickets" (Kuda Olai) anyone possessing the following qualifications:

- (a) "He must own more than a quarter veli of tax-paying land;
- (b) He must live in a house built on his own site;
- (c) His age must be below 70 and above 34;
- (d) He must know the Mantrabrahmana i.e., he must know it by teaching others;
- (e) "Even if one owns only one-eight veli of land, he should have his name written on the pot-ticket to be put into the pot, in case he has learnt one Veda and one of the four bhasyas the explaing it to others.

Among those possessing the foregoing qualifications.

- (f) Only such as are well conversant with business and are virtuous shall be taken and
- (g) One who possesses honest
 earnings, whose mind is pure
 and who has not been on
 any of the Committees for
 the last three years shall also
 be chosen.

DISOURLIFICATIONS:

- (a) One who has been on any of the committees but has not submitteed his accounts, and all his relations.
- (b) One who has committed sins and has become pure by
 performing expiatory ceremonies;
- (c) One who is guilty of incest and has become pure by performing expiatory ceremonies

- (d) All these thus specified shall not to the end of their lives, have their names written on the pot-tickets to be put into the pot for any of the committees.
- MODE OF ELECTION: Excluding all these, thus specified, names shall be written for pot-tickets in the thirty wards, and each of the wards in these twelve streets of Uttaramerur, shall prepare a separate covering ticket for each of the thirty wards bundled separately. These packets shall be put into a pot. When the pot tickets have to be drawn, a full meeting of the Great Assembly, including the young and old members, shall be convened. All the temple priests, (Numbimar) who happen to be in the village on that day, shall, without any exception whatever, be caused to be seated in the inner hall, where the great assembly meets. In

the midst of the temple priests one of them, who happens to be the eldest, shall stand up and lift that pot, looking up-wards so as to be seen by all people. One ward i.e., the packet representing it, shall be taken out by any young boy standing close, who does not know what is inside. and shall be transferred to another empty pot and shaken. From this pot one ticket shall be drawn by the young boy and made over to the arbitrator (madhyastha). While taking charge of the ticket thus given to him, the arbirator shall receive it on the palm of his hand with the five fingers open. He shall read out the name in the ticket thus received. The ticket read by him shall also be read out by all the priests present in the inner hall. The name thus read out shall be put down (and accepted). Similarly one man shall be chosen for each of the thirty wards.

(Contd. from P. 22)

by the public with a sense of gratitude and admiration. The credit must go to our ANNA, and this credit is what we can lay at the feet of our ANNA in token of our reverance and love for him.

"The badge must be with you whenever you render commendable service to the society reminding the society of the benevolent performances of the Prosperity Brigade".

The appealing expressions of our Kalaignar got themselves impressed in the hearts of all the volunteers.

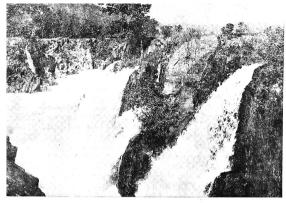
Honourable Ministers, M. Muthuswamy, N. V. Natarajan and P. U. Shanmugam also visited the camp and received our solute of honour.

The encouragement given by our Honourable Ministers aroused our earnest enthusiasm to dedicate ourselves to social service at leisure.

This dedication of the Brigade to public service is its own reward. The greatness of the Prosperity Brigade adds to the nobility of ANNA but for whom it would not have come into being at all.

MANIVANNAN,
Park Town Prosperity Brigade





RIVERS OF TAMIL NADU

The Hogenekal Falls of the Cauvery in Dharmapuri District

The western ghats form a complete water-shed. No river pierces through them. In Kanyakumari district which faces the Arabian sea, there are streams which go to the Arabian sea. Chief among them are Paraliyar or Kulithalar. It is only 37 miles long. The other stream is Kothayar which is 20 miles long and which joins the Paraliyar. The southern most river is Vattaseri Phazhayar which is only about 23 miles long.

All the other rivers are east flowing rivers. Unlike the western ghats, the eastern ghats are not a complete water-shed. The rivers pierce through them, the most notable among them being the river Cauvery. All the rivers which flow towards south-east are of great

antiquity. Owing to the denudation of ages, they have almost base level land. The valleys are broad and shallow. Most of the rivers have very little water during a good portion of the year. However, during monsoons, they carry a large quantity of water.

Cauvery, Vaigai

The river Cauvery is 475 miles long. It drains an area equal to 28,000 sq. miles. It takes its origin on the Brahragiri in Coorg in the Western ghats. It travels quite some distance in Mysore State in an easterly direction and for some distance, it forms the border of Mysore and Tamil Nadu. It takes a southerly turn near Hogenekal and enters Tamil Nadu. It goes in

The Vaigai Dam in Madurai district

a southern direction till it reaches Tiruchi district when it changes its course and becomes an east flowing river. Thanjavur district has been formed by the Cauvery delta. Its catchment area is in Coorg and whenever there is heavy rain fall in Coorg, the inflow in the river Cauvery shoots up. Across this river, a huge reservoir has been constructed called the Mettur Reservoir. Near Tiruchi, there is an Anicut called the Upper Anicut. In Thanjavur district, there is an Anicut called the Grand Anicut The Cauvery has been so well utilised that its drainage channel the Coleroon is generally dry. The chief tributaries of the river Cauvery are Bhavani, Amaravathi and Novyhal.

Vaigai is the second most impor-



tant river in Tamilnadu. It originates in the Varushanad hills and flows in the Cumbum valley. It flows in a North-Westerly direction for some time in Cumbum valley. Then it flows in an Easternly direction in Madurai district and finally flows in almost South-easterly direction till it meets the sea near Devipattinam Ramnad district. The river receives much of the drainage from the upper and lower Palanis. The river has been dammed in Madurai district close to Theni. There is also an anicut at Anaipatti in Madurai district. The river does not carry its own water only. The waters of the river Perivar which is a west flowing river have been diverted by means of a dam and turned East and have been made to fall into the Vaigai river. The Vaigai also receives freshes in June. During the North-east monsoon, there is rain in the catchment area and there is considerable flow in the river.

Tambraparani, Palar Ponnaiyar

The river Tambraparani raises in the Southern portion of the Western ghats and it gets the benefit of both the monsoons. After traversing a few miles in the hill range, it descends into the plain at Papanasam. The river runs in a Southeastern direction and forms a delta south of Tuticorin. The river is over 70 miles long. It drains an area equal to 1937 square miles. Its chief tributaries are Ramanadhi, Ghatna, Pachaiyar and Chittar. The valley of the river Tambaraparani contains some of the richest lands in the State and 94 per cent of the irrigated area is double cropped with paddy.

Palar rises in Nandhi hills in Kolar district of Mysore State. It is the largest river of the Chingleput and North Arcot districts. It falls into the sea three miles south of Sadras in Chingleput district. The length of the river is 183 miles. Its chief tributaries are Cheyyar and Ponni.

The river | Ponnaiyar rises close to the river Palar in the Chennascha hills east of Nandidurg in Kolar district of Mysore State. It runs through Bangalore district for a short distance and then turns in south-easterly direction and enters Dharmapuri district in Tamil Nadu. It joins the sea south of Pondicherry. It valleys are wide and sandy and its banks are low. Ponnaiyar flows through Tamil Nadu State for 200 miles. Its drainage base is 620 square miles. The floods which do occur come

suddenly. There are high flows and the river falls into Malathar which was its old bed. The Malathar, now is only a small branch. The chief tributary is Pambar which joins on the left bank in Salem district. The river has no delta on its mouth.

Vellar, Courtalayar

It is a small stream which rises in the Kalrayan hills. It receives the drainage of Kolli hills, Pachaimalai and Kollimalai. The river flows in easterly direction and joins the sea near Porto Novo. The length of the river is 134 miles and it drains an area of 266 square miles. Its chief tributary is Manimuktha Nadhi. Contd. on Page 42

TRIBAL GIRL'S RIFLE ACHIEVEMENT



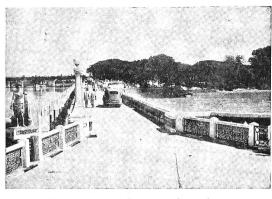
The city civilian Rifle centre organised by the Commissioner of Police, Madras has trained many civilians in rifle shooting. This centre has produced a champion in a Tribal girl from Madhya Pradesh.

Selvi Ramapriya, aged 21 was

from the chatisgarh area of Bilaspur District in Madhya Pradesh and was mainly engaged in grazing cattle and sheep. Since her grand father was devoured by a tiger, she resolved to shoot man-eaters which are found mostly in the Bastar District. Thiru Vinayak from Tamilnadu, an employee in the Dhandakaranya project, agreed to teach this girl shooting in return for house-keeping.

This promise was fulfiled by him with the help of the Tamilnadu Police officials at the Rifle Club. She was allowed a full membership in the Madras Rifle Club and she was persuaded to enter the championship contest. The Special Armed Police porvided her training facilities for a period of one week on the big bore rifle shooting.

She heroically underwent this training of firing a large number of rounds from a rifle of considerable recoil and managed to reach the fourth position, earning a special prize and appreciation for her valiant efforts from the Chief Minister of Tamilnadu.



The grand Anicut across the Cauvery in Thanjavur district

Among the small rivers worth mentioning in this context are the Courtalayar which flows from the surplus waters of Kaveripakkam tank. The river runs across the Chingleput district in eastern direction and joins the sea near Ennore. Courtalayar basin has been investigated for underground water.

Conum

This river is formed of the surplus water of the Cooum tank in Chingleput district. It runs through a small portion in Chingleput district and joins the sea south of Fort St. George in Madras City-A scheme has been taken up now to induct sea water into this river.

POOMPUHAR REFLECTS EARLY TAMIL CIVILIZATION

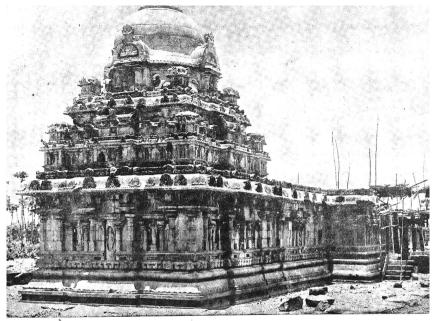
The excavations at Kaverippumpattinam the well known early Chola port town of Puhar on the east coast of the confluence of the Cauveri with the Bay of Bengal, besides confirming the picture of the early historical civilization of Tamil Nadu as revealed by excavations elsewhere. add a few significant new facts to that picture. The uncovering of a small reservoir with an inlet channel with corbelled roof from the Cauveri a Buddha Vihara along with the Buddha pada, images of Dhyani Buddha indicating affinities with the contemporary Buddhist Church of the Andhra region and a brickbuilt wharf with wooden posts for anchoring boats are among the new additions to our knowledge.



TAMIL WENT INTO PRINT

Tamil Nadu which has a rich and voluminous literature that dates back to the sangham period of the B.C. era has been conversant with the art of book production for several centuries.

It may be said with justifiable pride to the Tamilians that to-day when just about 500 years have passed since the invention of printing in Europe, about 400 years have passed since the first printing in Tamil characters was done. Those characters, described as "Malabar characters," were cut by Joannes Gonsalves, a Portuguese missionary, in 1577 and the first Tamil Book "Tampiran Vanakkam" a translation of Francis Xavier's Doutrina Christe appeared in print in 1578.



The Gangaikondacholeeswara Temple at Kuzhambandal after Conservation

a Chola Temple Saved from Ruins

Kuzhambandal, is a small village about 12 miles from Kanchipuram in the Kanchi-Wandiwash Road. Its original name as gleaned from inscriptions is Gangaikondacholapuram. It is just two miles from Ukkal another well known village in the early history of Tamilnadu.

Kuzhambandal has two important temples one dedicated to Lord Siva called Gangaikondacholeeswara and another temple in ruins, that of Maha Vishnu, standing with his consorts. The Gangaikondacholeeswara temple is situated towards the North-East and the Vishnu temple to the West of the village. In the South-West in the midst of a field is found a basement of a small temple and an image of Mahavira found lying among the debris. Towards the South of the village is found an image of Durga as Kotravai, standing in the midst of huts. From the location of these ancient temples, it is evident that the village was laid out according to traditional, Architectural treatises in which positions of these temples

are prescribed in detail. As mentioned earlier the village is named Gangaikondacholapuram. The earliest inscription found in the village is dated in the reign of Rajendra Chola I. It is therefore evident that this village was laid out in the reign of Rajendra I (1012 to 1044 A.D.), to commemorate his historic march upto the Gangetic plain. It is of interest to mention that Rajendra established a capital named Gangaikondacholapuram, where he erected one of the monumental temples of India.

Temple near Kanchi

The Gangaikondacholeswara temple at Kuzhambandal was built by a certain Isana Siva Panditha in the regin of Rajendra I. According to Epigraphs the village is said to be in Bahur Nadu, a subdivision of Kaliyur Kottam, in Jayankonda chola Valanadu. The village Gangaikondacholapuram (Kuzhampandal) was also called Vikrama Cholapuram in later periods.

The inscriptions found on the temple walls, refer to the Chola King Rajendra I, Rajadhiraja I, and Krishnadevaraya. From the inscriptions it is learnt that lands were gifted for providing offerings and worship and festival in the temple. A number of dancing girls are said to have performed dances, and other services in the temple.

The Siva temple built of granite is an excellent structure of 11th Century A.D. It is a three storeyed structure with a circular sikhara on the top. It is preceded by an Antharalaya an Ardhamandapa and a Maha Mandapa. Due to some unknown causes the temple has been neglected. No worship is being offered now. The temple was overgrown with bushes, trees and plants. The super-structure particularly, the Sikhara was found fallen and repaired with bricks. Due to growth of vegetation the row of Pavilions on the superstructure were found dislodged. Roots were found to have penetrated into the core of the walling. The ceiling of the Maha Mandapa has disappeared and the walls were fallen at many places. The Dvarapalas guarding the entrance to the Maha Mandapa were found fallen in broken condition. In front of the Maha Mandapa there was a big Nritha Mandapa of which only the base and few pillars remain. A few sculptures belonging to the temple were found lying scattered, and it

was reported that a few attempts were made to carry away these sculptures by interested parties.

Restoration Work

The State Department of Archaeology, took up the restoration of the temple in three stages, The Vimana was taken up for conservation. Vegetations were removed and the Sikhara was repaired with granite stones dressed to the original profile.

Conservation of Vimana portion

All the dislodged stones were removed carefully and labelled. The missing stones were noticed and fresh stones provided to make good the stones lost, dressing them to suit the course where they had to be placed. In all cases, the profile was dressed in conformity with the original stone found in the wall. The plantgrowth were removed and the roots were also completely removed and chemically treated, till they were destroyed. The Vimana and the walls were reformed supplying missing stones and setting right in position dislodged stones found in various courses.

Due to heavy leakage in the Antharalaya and Ardha Mandapa, the entire roof was removed upto the ceiling stones. Beams were



The Temple before Conservation

replaced in correct position and roof reformed and made water tight by concreting and plastering.

The entrance of the temple was set right. A pedestal for the Nandi has been built and placed in position. The broken dvarapala sculptures were bonded with synthetic resins and set in position. The Nritha Mandapa was cleared of its debris and a few fallen stones were set in position. A notice board giving important historical details about tife temple has been planted for the benefit of the visitors.

The Vishnu temple in the west as mentioned earlier was in utter ruins. The sanctum built of brick. had fallen and the main images Vishnu and his consorts were found covered in debris upto the waist. The debris were removed and the images were set right. The sculptures of Vishnu and his consorts are beautiful sculptures, standing about six feet in height. It is of interest to mention that in the layout of village, a temple dedicated to Mahavira or Sasta is prescribed in the traditional treatises. In this village, a temple dedicated to Mahayira has been included in the original layout. It not only shows that Jains formed a part of the inhabitants but also that greater religious harmony prevailed. The fallen Mahavira was set right in position. .

Important Discovery

It is also of interest to mention that while carrying out repairs to the Siva temple an important technique of layout was noticed. When all-stone temples are erected to considerable height, the anticipated load is very heavy. Either due to wet conditions or due to cracks in soil, the superstructure might be affected with settlements or cracks leading to the collapse of the structure. To prevent such defects, careful planning has gone into the

erection of base. Four concentric stone walls at regular intervals have been laid around the base below the surface. This certainly eliminates any possible settlement. This seems to be the secret of erecting lofty towers of stone over 200 feet in height as at Tanjore. The discovery of these base wallings marks

an important stage in the study of the Science of ancient architecture of the Tamils

Thanks to the timely taking over of the monument by the Tamil Nadu Government, a valuable Chola temple has been saved from ruins.



Contd. from Page 18

municipalities and 5 town panchayats. Out of the 26 schemes, 22 schemes relate to Water Supply and 4 to Drainage. The total estimated cost of these 26 schemes was Rs. 13.92 crores. It was estimated that a sum of Rs. 2.88 crores would be required for the year 1969-70. The details of these 26 schemes are given on P. 18.

With such a systematic effort the Government of Tamil Nadu is trying to solve the problem most effectively. Perhaps the State of Tamil Nadu may again lead the country in this respect also.

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