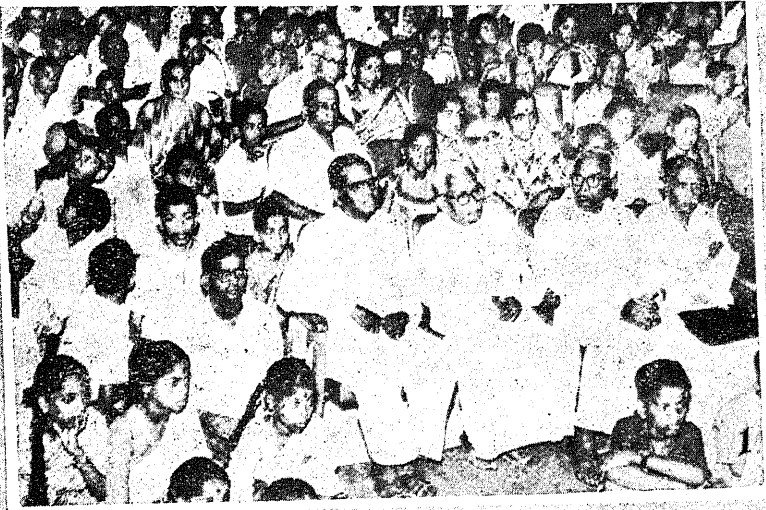
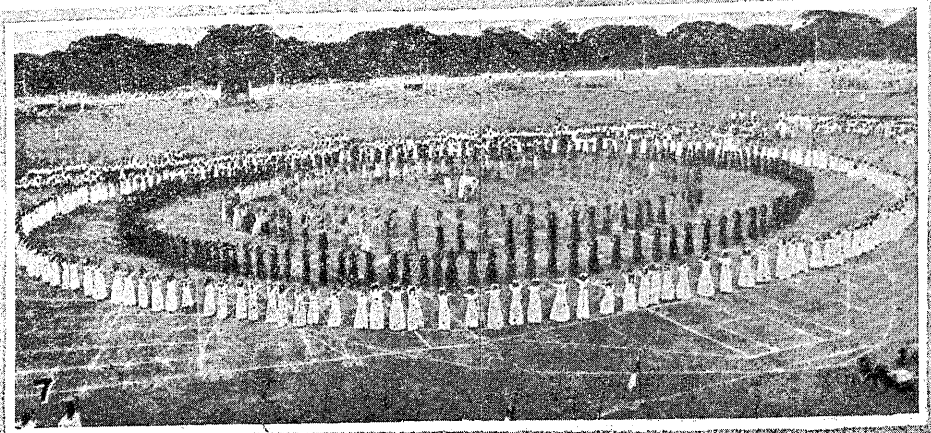
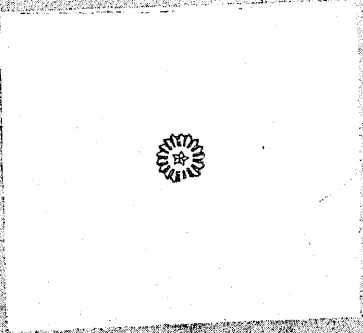


MADRAS  
*Information*

DECEMBER '64    PRICE 20 P.



**CHILDREN'S DAY  
IN  
THE CITY**



# Madras Information

19 DEC 1964

Vol. XVII DECEMBER 1964 No. 12

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**FACING PAGE**—(1) The Chief Minister witnessing the variety entertainment organised by the A.I.R. (2) (3) and (4) Scenes from the variety entertainment. (5) Chief Minister is awarding a Silver cup to Keltet High School, the winner in the inter-school essay competition on Nehru in connexion with the Children's Day. (6) Chief Minister distributing prize to the best Elementary School the Aided Elementary School for South range.

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3. To intensify efforts for increased production of agricultural and small-scale industrial commodities to make his State self-sufficient.
4. To avoid all strikes and lock-outs that may hamper production.
5. To maintain the price level of all essential commodities and curb the tendencies of hoarding and profiteering by conforming to the various legislative and other popular measures.
6. To maintain the supply lines of essential commodities.
7. To contribute generously in the form of money and gold for the war effort.
8. To inculcate the highest sense of duty and responsibility.
9. To join the various organizations set up for the defence of the country.
10. To prevent anti-social and anti-national activities of the fifth columnists.
11. To observe strict austerity in consumption of food, clothes and other essential goods and save for the National Defence Fund.
12. To avoid unnecessary travel so that more important and essential movement may not be hampered.
13. To keep up the morale of the people and prepare them for sacrifices.
14. To check rumour-mongering and to disseminate true and faithful news and information.
15. To join or help Citizens' Committee, N.C.C., Territorial Army and Lok Sahayak Sena and Rifle Clubs.
16. To pray for the victory of our Motherland in this struggle and set aside all differences of caste, creed or party.



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# BUILDING UP A

# STRONG INDIA

SRI LAL BAHADUR SHASTRI, *Prime Minister.*

*In a broadcast to the nation on the eve of National Solidarity Day, the Prime Minister, Sri Lal Bahadur Shastri, said the preservation of freedom and the territorial integrity of India called for incessant efforts, vigilance and alertness.*

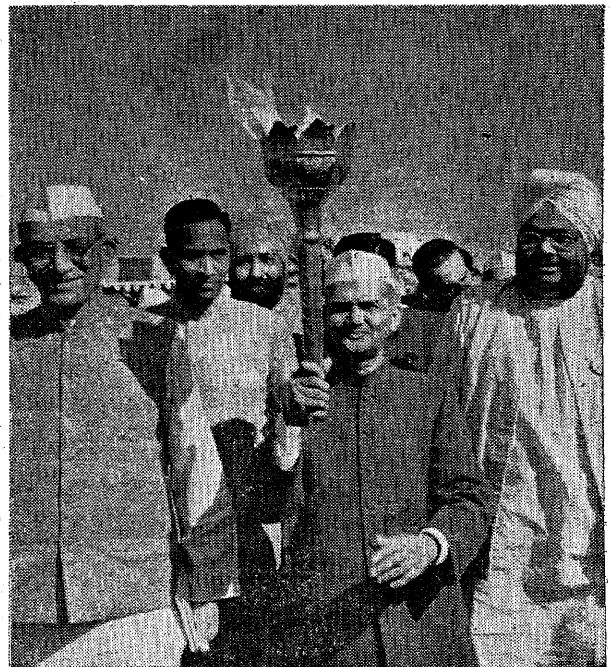
It was two years ago that our northern borders were attacked. This was a surprise sprung on us so suddenly. But in this hour, of peril, we saw throughout the country an upsurge of patriotic feelings. The differences between the States, caste, creed or language which often seemed superficially to divide us disappeared in a moment. It was a visible demonstration of the fundamental unity of our people which had preserved the integrity of India over the ages. The farmer in the field, the worker in the factory and indeed the people from all walks of life came forward to make their own contribution in order to defend the country's freedom. On the borders, our soldiers fought with valour and with determination. So many of them made the supreme sacrifice and gave their lives so that the country may live. The whole nation remembers them with feelings of admiration and gratitude.

## **China : a menace**

We have, however, to remember that we should not think of what happened in the past and thus suffer from a sense of undue self-satisfaction. We have also to realise that the preservation of freedom and the territorial integrity of the motherland calls for incessant efforts, vigilance and alertness. The problems that we face today are serious indeed. The Chinese are trying to build up a mighty war-machine and thus to create a fear in the minds of all. China has gone a step further and has recently exploded an Atom Bomb. We are thus confronted with a nuclear menace in Asia, something new for this peace-loving continent. These are serious developments and we must take due notice of them.

Within the country, we are going through a period of difficulties. The production of food is still

inadequate. Harvesting of rice has begun and the new paddy and rice will be coming into the market. This will ease the situation in respect of rice for the present. The farmers are aware that Government is very particular that they should get reasonable and remunerative prices for their paddy. I hope they are aware of the fact that the producers' prices have already been fixed and announced. It is, therefore, not unreasonable to expect that the kisans will come forward to sell their paddy or rice to Government at



The Prime Minister, Sri Lal Bahadur Shastri, holding aloft the "Jawahar Jyoti" at the Samadhi of Sri Jawaharlal Nehru, on November 14, 1964. The Jyoti was carried in a procession through the streets of Delhi for the citizens to pay homage for the late Prime Minister.



Photo shows the reverse and the obverse of the One Rupee and Fifty Paise coins issued on the 14th November 1964, in memory of Sri Jawaharlal Nehru.

the fixed prices. I hope they will surely resist the temptation to sell it quietly to others in order to get a higher price. This will only cause misery to their own kith and kin. The farmers have always fed the country and in the present situation specially their responsibility is supreme. I am sure they will go all out to co-operate in the vital task of feeding the people.

The sowing of the Rabi crop will soon start and let us try to produce much more of wheat than we did in the year 1962, as 1963 was a lean year. It is essential that the district administration should help in the supply of adequate seeds, manure and similar other facilities. Water for irrigation purposes is the most important item.

#### **Problem of irrigation**

The problem of water-logging has greatly increased in recent years. Every effort should be made to see that areas liable to water-logging are provided with necessary drains. Besides major irrigation projects, minor and medium schemes should also be taken in hand. All tanks and ponds should be deepened. At present digging of tanks is out of fashion. In fact an Act should be promulgated for the purpose of deepening of old tanks and digging of new ones. If possible, the present Irrigation Department may be split up into two departments—One of Chief Engineer, Major and Medium Irrigation Works and the other of Chief Engineer, Minor Irrigation and Drainage. The new department should take over responsibility for the development of all drainage and minor irrigation works with which the rural people are really concerned. The construction of State tube-wells should not be taken up except in areas where the water level is less than 30 to 35 feet. I am told that the construction of tube-wells sometimes diverts attention from the existing irrigation works and even leads to avoidable duplication. It should always be borne in mind that new investment in tube-wells should not make the older investment infructuous nor should it result

in the neglect of the existing works. These are some of the reasons why the irrigated areas in number of States has not appreciably increased in spite of considerable investment.

The District Administration has to be much more alert and active to give all encouragement and assistance to the kisans towards increased production of Rabi crop. While wheat is in no way less important, there must be greater production of pulses also. The shortage of pulses has considerably added to our present difficulties. I know we all understand and fully realise that the solution of all our present day food difficulties lies in increased production. It is therefore essential that Government officials in the districts and others at the State or Central level as also the farmers should work hand in hand to produce a much better result. Let us show to the country that we can tackle our problems effectively by our own efforts and perseverance.

#### **Proper distribution**

The question of distribution has also assumed great importance. The Co-operatives and the Fair-price shops have helped to a considerable extent in the present situation. With improved methods and with more effective supervision they can do still better. Moreover, if consumer co-operatives can be organised by local initiative, they can be of much assistance in ensuring supplies to the consumers at steady prices. I am sorry to say that grain dealers do not seem to have fully realised the gravity of the situation. This has led me to serious thinking and it now seems essential that Government must make some radical changes in the present system of distribution. I don't say that the alternative system will be hundred per cent good. It has, however, become essential to ensure by all possible means that every man gets the necessary quantum of food and at a reasonable price. We may, therefore, have to take new measures.

Let me assure my countrymen that I would be the last person to create any feeling of depression in them. Our food position, as I said earlier, will surely prove on account of new paddy and some other crops. Besides that, we will be continuously getting imported wheat from the United States of America. We will also try to get it from other countries. We will, therefore, not be short of stocks so far as essential supplies to our countrymen are concerned. I am, however, keen that in the coming few months, while we should try to produce more, we must necessarily build up a better machinery for proper and equitable distribution.

### National Unity

In the long run, the economic conditions of the country will improve only if we plan our economy in a rational and scientific manner. We are in the midst of preparing our Fourth Five-Year Plan. Agriculture is bound to get a high priority. Industry is equally important and the combination of industry and agriculture alone will take the country out of the morass we are in and present a cheering picture before our people. This is thus a period of travail and of hard labour. We have to make a determined endeavour as a people to raise ourselves above poverty and misery.

It may be obvious, but often we seem to forget that it is not the endeavour of a few people but the hard work of the many that makes the country great and prosperous. We are passing through a new and revolutionary phase in our history and all the people



Facsimile of a special postage stamp issued on November 14 1964, the 75th birthday anniversary of the late Prime Minister.

should stand united as one man as they did before in the hour of peril. Let us then resolve to meet the challenge of our time with fortitude and determination and with a sense of national unity and national purpose.

I invite you all my countrymen to join together as brothers and sisters in this great challenging task of building up a new, swakened and strong India. I ask you to pledge yourselves a new to the dedicated service of our motherland.

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Role of Medical Officers in checking

POPULATION GROWTH



SRIMATHI JOTHI VENKATACHELLUM,  
*Minister for Public Health.*

*(The following is the Health Minister's inaugural speech at the meeting of the State Family Planning Board held at Kanyakumari on 27th September 1964.)*

The problem of keeping the rate of growth of population under check has been engaging the attention of the Government for a long time, and the State Family Planning Board has been assisting the Government in formulating new schemes from time to time for the effective implementation of Family Planning Programme. Even though Family Planning schemes were introduced as early as 1945 in this State, it was only in 1958, with the formation of the Panchayat Unions and their close and active association, that the whole programme was placed on a firm footing.

**Emphasis on sterilisation**

It is needless to say that the main emphasis in the family planning programme as implemented in this

The Governor of Madras gave a lunch to Srimathi Bandaranaike, Prime Minister of Ceylon, who arrived in Madras on 30th October, 1964 on her way to Ceylon.

State is on sterilisation operations. Fairly satisfactory results have been achieved up to the end of the year 1962, when the canvassing system was in force in Madras City. During the year 1962 alone, 46,464 fathers underwent sterilisation operation, both in Madras and in the districts. There has however been a steep fall in the number of operations done, from the year 1962. Statistics show that 24,004 fathers have undergone sterilisation operation in this State in the year 1963. (A review of the situation showed that the set-back in the year 1963 was chiefly due to the abolition of the canvassing system in Madras City and the abolition of the posts of District Family Planning Officers in the mofussil. Any measure for the revitalisation of the Family Planning Programme should start with the reintroduction of the canvassing system as well as the revival of the posts of District Family Planning Officers in all districts.)

(In the interests of the economic development of the country, there is now a great need for achieving sizable reduction in birth-rate in the shortest time possible. It is estimated that to achieve a stable population at least by the end of the Fifth Plan Period—1976—it will be necessary to reach a target of five operations for every thousand population every year. Therefore it is necessary to regain the momentum that was created and lost and also to revitalise the entire programme in this State. Any Programme of Family planning launched with this view has necessarily to lay stress on surgical methods. Nevertheless, attention has also to be paid to educational process aimed at dissemination of knowledge about family planning methods and use of contraceptives. Recently, the





Government, after careful consideration, have launched a crash programme. This has been accepted in principle by the Government of India and the Planning Commission whose Deputy Chairman visited Madras recently.

#### Additional staff sanctioned

Under the crash programme the Government have sanctioned the reintroduction of the canvassing in Madras City and also for its extension to four districts, namely Tiruchirappalli, Coimbatore, Madurai and the Nilgiris. They have also sanctioned the appointment of District Family Planning Officers with necessary attendant staff, to help the Collectors in the implementation of this programme in the districts. Adequate additional staff has also been sanctioned for the various hospitals in the State and also for the Primary Health Centres. The Family Planning work in Primary Health Centres will be under the control of the Director of Public Health. To look after this work in rural areas, the State Family Planning Officer has been transferred to the control of the Director of Public Health while a separate post of Special Officer in the rank of Civil Surgeon has been created in the Office of the Director of Medical Services to be in-charge of Family Planning Work particularly sterilisation in Government Medical Institutions, other than Primary Health Centres. By this reorganisation, the Government expect to achieve better results in a systematic manner. Every medical officer at whatever level he or she may be, and irrespective of the fact that he is on the medical side or health side, has to shed all differences and should co-operate together and bring about the success of the scheme.

#### Role of Panchayats

Since the bulk of the population live only in the rural areas, the success of the Family Planning schemes sanctioned so far, will depend on how well they are implemented in the rural areas. The Programme of



The President also attended the Lunch given to the Ceylon Prime Minister by the Governor of Madras.

Family Planning is intimately tied up with the programme of local development and health administration and because of this, it has been associated with Panchayat Organisations in the State. It is necessary to make the Panchayats and Panchayat Unions evince greater interest in the implementation of the Programme. It would be better if the concerned officials give the appropriate leadership and guidance to the Panchayats and Panchayat Unions as this will go a long way in helping them to implement the programmes successfully. (In fact, the control of growth of population is one of the main items of work of the Panchayat Unions. A target of 400 sterilisation operations per year has to be achieved by every Panchayat Union.) Government have issued an appeal to the Collectors of the districts to intensify this programme so that it will reach its original tempo of 1962 within the shortest possible time. The Government have also sanctioned a District Family Planning Officer in each District who will be in the grade of a Tahsildar, to help the Collectors, Chairmen of Panchayat Unions and Presidents of Panchayat Boards in this programme.

### Indian Film on Family Planning Wins Commonwealth Award

An Indian colour cartoon film entitled "A Great Problem", produced by the Films Division of the Ministry of Information and Broadcasting has won the Commonwealth Film Award, 1964.

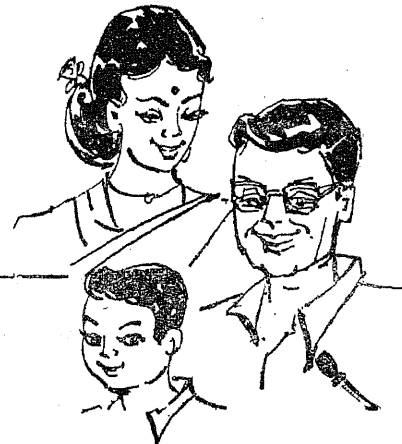
The award, instituted by the Royal Society of Arts, London, is given to Commonwealth country (excluding the U.K.) producing the best documentary film.

This year the entries were made by Australia, Canada, Ceylon, Fiji, Hong Kong India, New Zealand and Pakistan.

The award-winning documentary, dealing with the problem of "Family Planning" revolves around an ordinary peasant with several children. With its simple, direct and convincing appeal, it brings home to the parents the manifold benefits of Family Planning.

## ROLE OF HOUSE WIVES

# SAVINGS FOR HAPPINESS



*The Plans need our savings. In the family budget of every family each rupee counts. By preparing a frugal budget every housewife can avoid waste and a tidy sum can be saved every month.*

Domestic peace and happiness are assured in the household where the expenditure is carefully planned and economically managed. The virtue of thrift is inherent in most Indian women but a little thought devoted to the domestic budget helps promote harmony and enables the housewife to get the best value for her money.

### Key to happiness

The secret of happy home life lies in planned house-keeping. Kamala, a calm and cheerful housewife, always looks smart, keeps the home orderly and clean, entertains visitors with a smile and never appears to be in want. Her neighbour, Parvathi, with the same

family income and the same size of the family, looks and feels constantly in need, dresses in a slovenly fashion, never cares to see what her home looks like and blames fate for her poverty. The poor woman does not even realise that her grumbling and grouching create a tense atmosphere in the home and aggravates her problems.

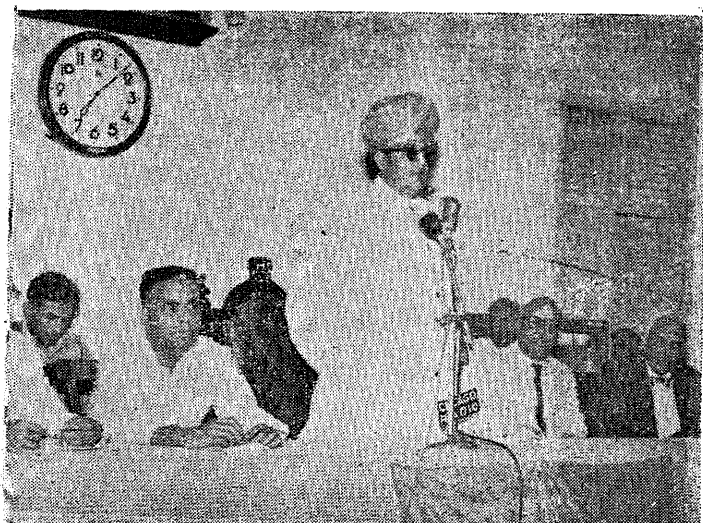
### Look at this picture

Kamala prepares her monthly budget and spends the money on a planned basis. The money comes into her hands after her husband has met the needs for long term savings, such as Provident fund, Life insurance premia and Cumulative Time Deposits.

Kamala sets by a small amount through the Post Office Savings Bank to meet occasional expenditure on clothing for herself and her family, small presents to others, purchase of furniture and unforeseen calls such as sudden illness in the family and short journeys. She also anticipates and provides for special expenditure on festive occasions like Diwali, Dussehra, Pongal, etc. She knows how to judge the quality of the goods she buys and is seldom taken in by salestalk or glitter of the package.

Kamala prepares her monthly budget for the balance of the money. First, there are fixed charges on one's income: house rent, water and electricity charges, children's school fees, servants' wages and groceries which can be purchased once for the whole month.

The Governor of Madras presided over the Tamilnadu Co-operative Union's All-India Co-operation Day Celebrations.



She also plans the daily expenditure on milk, vegetables, meat, fruits, etc., to give the family a balanced diet. By experience, she takes into account all contingencies which are likely to arise during the month.

The family budget is thus in four parts: long term needs, occasional needs of the foreseeable future, fixed monthly charges and current day-to-day expenses.

The budget cannot of course be rigid. Kamala makes adjustments in her budget every now and then; indeed, they are necessary to avoid nervous breakdowns. At least, she knows what the adjustments are and periodically, takes care to set right the position.

Parvati does not care for any budget. To her, it is a question of spending as you go. She does not know what she needs, when she needs it and how she is going to pay for her needs. She makes her purchases haphazardly and without any planning. She is easily duped by a salesman and cannot resist throwing away money, when she has it, on trifles. An emergency or unforeseen item of expenditure drives her crazy. She has no idea what tomorrow may bring, not to speak of the needs of the month or the needs of the year. It is no wonder that her life is unhappy not only her own life but she makes everyone else in the family unhappy.

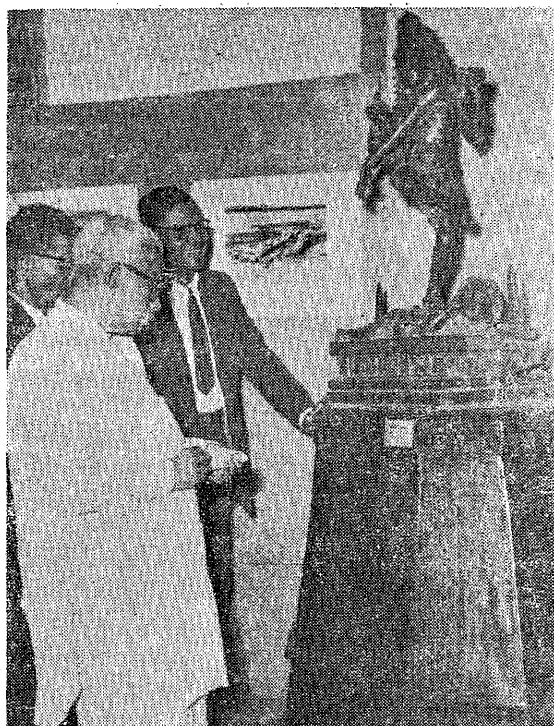
### Planning the needs

The value and advantage of preparing a budget cannot be over-emphasised. Without the budget, one cannot judge what one's commitments are. It is only when one is clear about the needs, can priorities be fixed. It may also be necessary every month to decide what items of expenditure can be avoided or postponed. Moreover, it makes it easy for the housewife to allocate the available money for each item of expenditure.

### Just think

Every household can avoid waste. Even in very frugal homes, there is often some wastage of food. If such wastage is minimised, a tidy sum can be saved every month. There is also waste of money, besides ill-health, in eating food in restaurants. The housewife can inculcate the discipline of thrift in the children and avoid the temptation of eating unwholesome food outside the house. Similarly, waste can be avoided in purchasing unnecessary clothes and making good with old ones mended in time. Clothes washed at home last long and save money.

The discipline of thrift flows from the housewife to her husband and the children. Care of clothes and books,



Sri M. Bhaktavatsalam, Chief Minister, witnessing some of the monuments, who inaugurated the international Campaign for Historical Monuments at Government Museum on 2nd November 1964.

eating only wholesome and nutritious food, economy in the use of water and electricity and in many other little household matters instil a sense of discipline the effects of which last for a long time.

### Meaning of Money

In a limited budget every rupee counts; and savings even in little things are helpful. Money has to be valued not for its own sake but for what it can give one in terms of comfort and happiness. Those who have something to fall back upon need not go through life worrying and complaining. Even if a small sum is put by every month, it gives one a sense of security. This money should be kept apart and all temptations to spend it should be avoided. The best way to ensure this is to put the money in a Cumulative Time Deposit account. There are families which invest regularly in N.D.C.'s or C.T.D. accounts and have an account for every member in the Post Office Savings Bank.

### Post Office Savings Bank

The Post Office Savings Bank is easy to operate. An account can be opened even with a deposit of Rs. 2 and later one can put in or withdraw even Re. 1, subject

only to the condition that the balance in the account is not less than Rs. 5 after the end of the first year. The account earns interest, free of income-tax, at the rate of 3 per cent per year.

Minimum amount required for opening an account is Rs. 2.

#### Withdrawals

Two withdrawals, together not exceeding Rs. 1,000 permitted in a week.

#### Rate of interest

Interest at 3 per cent per annum on balances from Rs. 25 to Rs. 10,000 and  $2\frac{1}{2}$  per cent per annum on balances above Rs. 10,000 up to Rs. 15,000.

#### Cumulative Time Deposit Scheme

Another scheme is Cumulative Time Deposit account. This too is an easy way to save. The scheme is simple and flexible and suits everyone's needs. Under the scheme, you can deposit every month Rs. 5 or more at a Post Office for a period of 5, 10 or 15 years. On

maturity your deposit will bring you a handsome lump sum including attractive interest which is free of income tax.

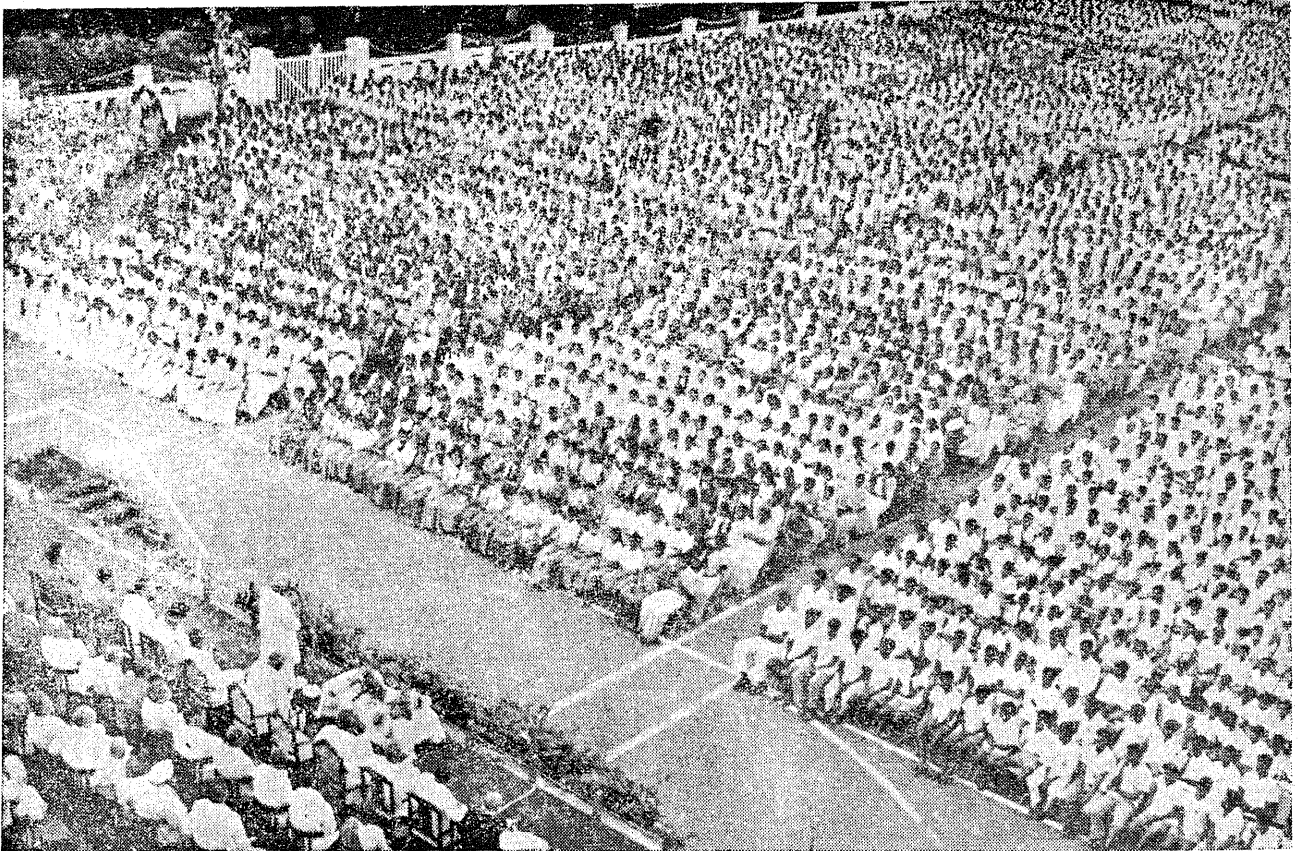
Deposits per month.	Lump sum secured at the end of		
	5 years.	10 years.	15 years.
RS.	RS.	RS.	RS.
5	325	725	1,250
10	650	1,450	2,500

and proportionately for higher amounts.

#### Withdrawals

Up to 50 per cent of the deposit allowed, once in a 5-Year account, twice in a 10-Year account and thrice in a 15-Year account.

The National Savings Organization will be glad to furnish details relating to Savings Certificates, Savings Accounts and other schemes. Details may also be had at any Post Office.



Chief Minister is seen addressing the children's rally organized at the garden of the Rajaji Hall on 15th November 1964 to celebrate the 75th Birth day of Chacha Nehru. About 7,000 students participated in the rally.

# The Surgical Instruments Project

*Surgical advance depends not a little on sufficient number of good quality surgical instruments. The Surgical Instruments Project, Madras is aimed at filling this gap by providing the necessary good quality surgical instruments in sufficient number. The estimated outlay of the project is Rs. 5.25 crores and is situated at Nandambakkam near Madras on 207 acres of land inclusive of township comprising 130 acres.*

In ancient times as early as 2,000 B.C. surgery was practised in India by the Ayurvedic surgeons with the surgical instruments manufactured in the country. Amongst them were Susruta, Bagbhatta II, Chakrapani Datta and Bhaba Misra. They have also written monumental books on the subject of Surgery and Surgical Instruments. Various types of Forceps, Tubular Instruments (Endoscopic), probes and cutting instruments have been described in those books.

Before the second World War, India was importing Surgical Instruments mainly from England and Germany. During the war, the import of Surgical Instruments to India and to the Eastern Theatres of war became difficult. The Government of India therefore, encouraged the industry on a Cottage and Small Scale basis in Sialkot (now in West Pakistan) and the surrounding area by opening a development centre at Sialkot and supplying steel, tools and creating facilities for heat treatment and electroplating, to the artisans. With partition, most of the artisans stayed back in Pakistan but a few of the businessmen who financed them migrated to India and tried to develop the Industry in the Punjab and Meerut district in Uttar Pradesh. The Industry also developed to some extent in the cities of Calcutta, Bombay and Madras. Even so, this has been found inadequate as evidenced by the lack of sufficient number of good quality surgical instruments in the market.

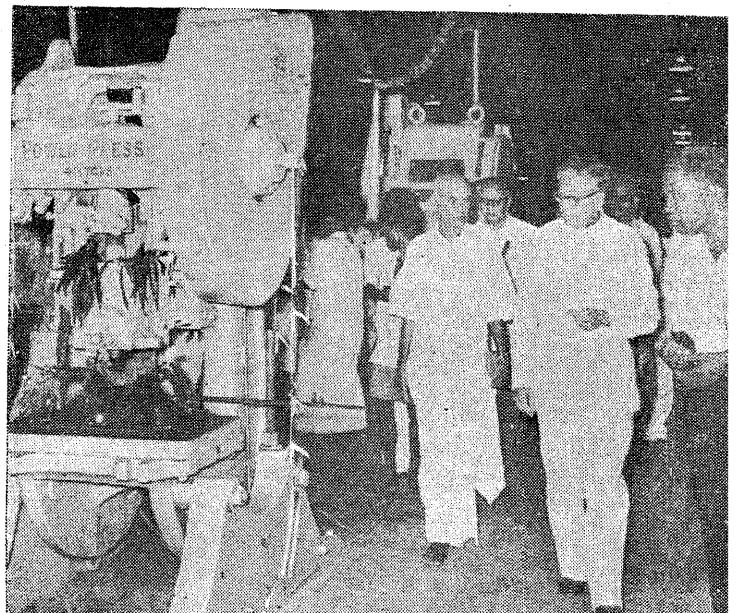
## A Project born

The Government of India, being fully conscious of this fact, formed "The Indian Drugs and Pharmaceuticals, Limited" in order to set up among other projects

3A

a Surgical Instruments Plant with Soviet collaboration. The contract for the establishment of the plant was signed during March 1962 between Indian Drugs and Pharmaceuticals, Limited and Messrs. Techno export of the U.S.S.R. The Government of Madras made available, free of cost, 207 acres of land in Nandambakkam which includes 130 acres for the township. The foundation-stone for the Administration Block was laid in September 1962 by the then Minister for Industries and Commerce, Sri K. C. Reddy. The project is estimated to cost Rs. 5.25 crores including the township. The cost of imported machines will be Rs. 63.5 lakhs and that of indigenous machinery, Rs. 44 lakhs.

Industries Minister at the Anniversary of the Government Industries Department Service centre for Pressed Metal Products.



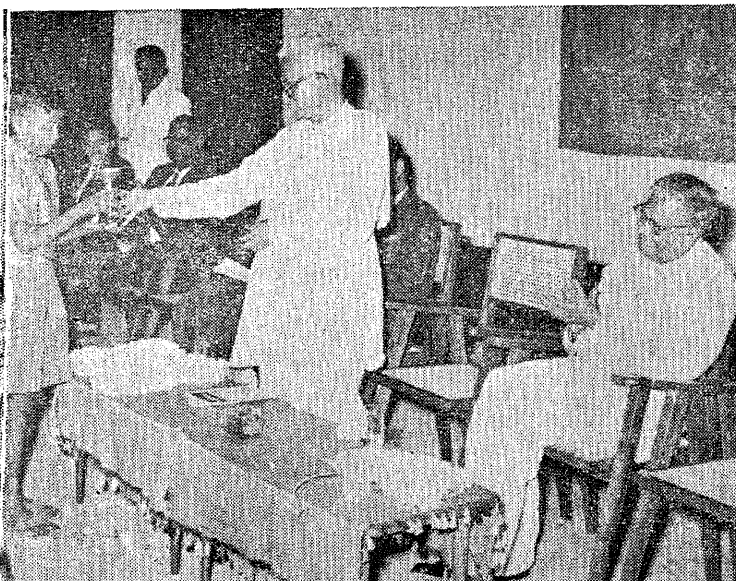
Erection of machinery has been tackled with efficiency and speed by our own engineers under Soviet supervision. Similar work has been completed in the adjoining machine repair shop and the materials preparatory departments. Erection work is in progress in the Forge shop which naturally has the heaviest equipment. A wide range of Soviet and Indian machines will be working side by side in all these shops.

The Project has its own water-supply amounting 734 cubic metres per day which will be supplied by pumping from a battery of infiltration wells constructed by the project and sewage and drainage systems have been completed at a cost of Rs. 58 lakhs. Power to the extent of 4 megawatts will be drawn from the general grid of the State Electricity Board from the St. Thomas Mount and Porur Sub-stations. Temporary connections have already been given.

### Production Range

The factory is scheduled to produce a range of 166 types of Surgical Instruments amounting to 2.5 millions pieces a year. The bulk of them are of stainless steel and the rest of carbon steel. 470 tons of raw materials will be used annually out of which 330 tons will be stainless steel. 310 tonnes of stainless steel and 180 tonnes of carbon steel is to be imported initially and orders have been placed with U.S.S.R. for the materials. Tools, Jigs, Dies and Fixtures required for the operating machines have also been ordered with the U.S.S.R. but these will ultimately be copied and fully produced in the Tool Room of the factory, commissioned recently. In fact, the Tool Room would be the nerve-centre of the Production processes in the factory and in order to gear up the activities of other departments, it has become essential to set up and commission this Shop

The Chief Minister is distributing prize to the winners in the elocution competition "International Co-operation" held in connection with the U.N. day celebrations on 24th October, 1964 at the Central Polytechnic, Adyar.



### SALIENT FEATURES

- \* *Expected to provide employment for about 1,200 persons.*
- \* *The factory will produce 166 types of surgical instruments.*
- \* *It has its own water-supply of about 734 cubic metres per day.*
- \* *Power requirement will be about 4 megawatt.*
- \* *The project expected to produce the first set of instruments by the middle of 1965.*

sufficiently in advance of the rest of the factory. Here all the Tools and Dies, Jigs and Fixtures that will be required in multiple sets in a continuous process will be produced.

### Technical Training

Thirty-five technicians have been trained in prototype factories in the U.S.S.R. and all of them have returned to the Project site. Thirty-one of the Soviet Technicians are to be on the site to guide, help and supervise the erection and commissioning of the plant. Nine of them are already here and live in a well-appointed Soviet Field Hostel on the Project site in Sylvan surroundings on the banks of River Adyar. With their help and single-minded devotion of all officers and staff of the Project, work was progressed smoothly and with commendable speed. The Plant when in full production will provide employment for 1,200 persons.

### Township

Township for the Project has been planned on 130 acres and in the first stage it is proposed to construct 644 residential quarters covering about 50 per cent of the employees and also set up essential non-residential buildings like school, hospital, market centre, bank, post-office and the like. 480 residential quarters have been taken up for construction of which 200 are ready and occupied by the employees of the Project. The balance are under completion. This township is being developed as a model industrial housing unit.

Educational and health facilities have already been provided to the employees by the establishment of a modern Primary-cum-Nursery School with trained staff

and dispensary with a qualified doctor and staff to start with. These will be developed into a Primary-cum-Middle School and a full-fledged in-patient hospital. An Employees' Co-operative Society has been organised and is being run in the Colony catering to the needs of the staff and ensuring supply to them of controlled commodities like rice, sugar, wheat, etc. The Society is also running the Staff Canteen in a modern building. In addition, a post-office and a public telephone call office have been set up. The State Bank of India is opening a branch on the Project Site very shortly. Staff recreation clubs are functioning both for ladies and men. A children's park with all facilities has been laid out in the Colony. Two modern staff buses have been provided for the staff to transport them to and fro for those living in the City. More staff amenities are to be provided by the management as the Project takes further shape and production is launched in a regular basis.



Government Scientific Glass Apparatus Factory was inaugurated by the Minister for Industries.

Conceived as a balanced and integrated unit, the Project is expected to produce the first set of instruments by the middle of 1965 and gradually attain full production in the months to follow.

### Season Tickets for Students

Government have sanctioned a scheme of issues of concessional tickets to students for travel in the Madras State Transport buses in the City of Madras. The concession is admissible to students of :—

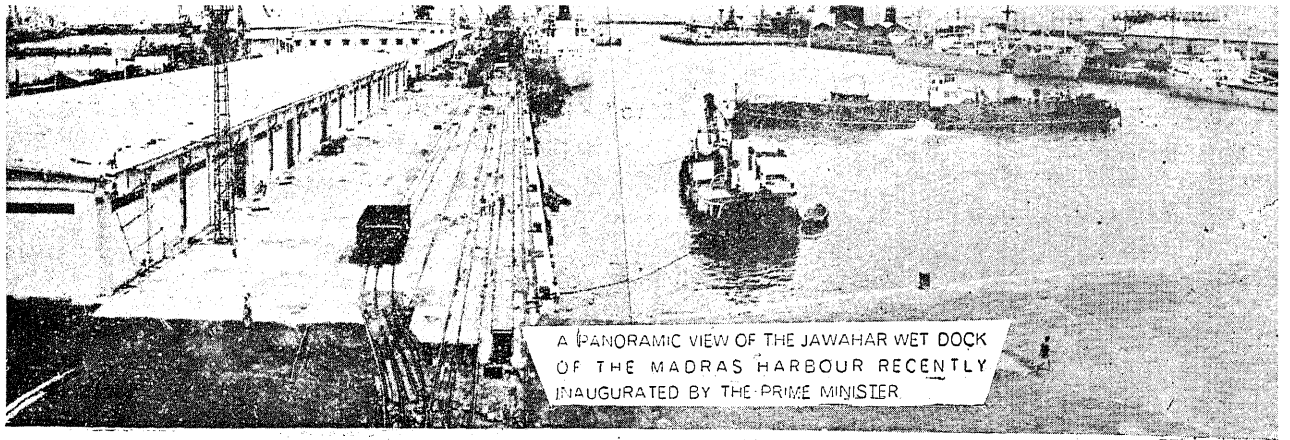
- (i) Schools in the City, recognised by the Director of Public Instruction ;
- (ii) Colleges in the City, regularly affiliated to the Madras University ; and
- (iii) Technical Institutions in the City run by the Department of Technical Education.

Students will have to apply for the grant of the season tickets in the form prescribed for the purpose. Arrangements are being made for the distribution of forms among the heads of institutions and Colleges in the City. Students are advised to apply in the prescribed forms. Forms can be had from the Office of the Director of Madras State Transport Department, Transport House, Madras-2, on application or in person.

The first issue of season tickets in every academic year will be alone from the "Transport House Depot, Madras". Renewals can be made from any of the following five places :—

1. Transport House Depot.
2. T. Nagar Bus-stand.
3. Mint Bus-stand.
4. Mandavalli Bus-stand.
5. Parrys Sub-Depot.

Instructions contained in the application forms and the conditions regarding the issue of season tickets printed may be on reverse of tickets may be referred to for further details.

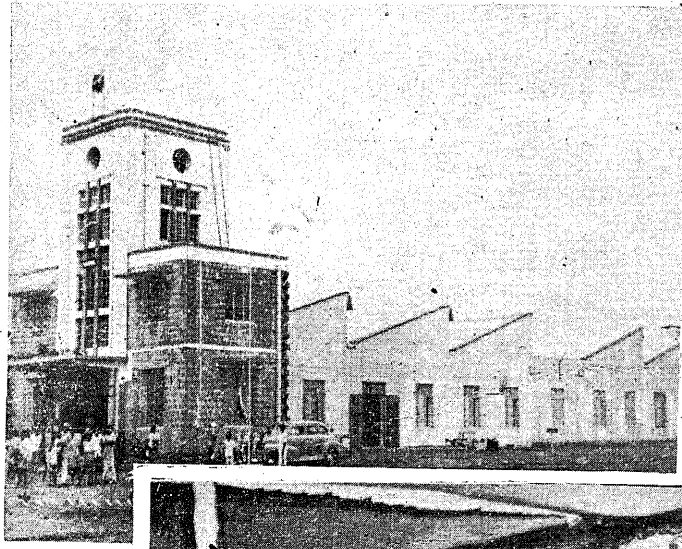
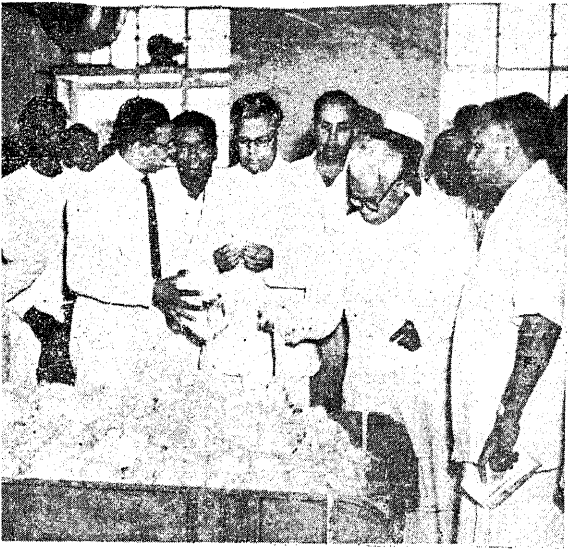


A PANORAMIC VIEW OF THE JAWAHAR WET DOCK OF THE MADRAS HARBOUR RECENTLY INAUGURATED BY THE PRIME MINISTER

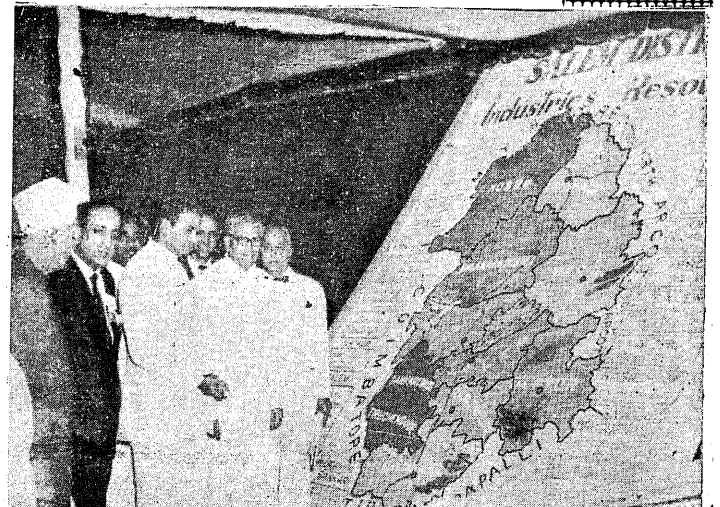


SRI HUMAYUN KABIR, UNION MINISTER FOR PETROLEUM AND CHEMICALS WHO INAUGURATED THE TOOL ROOM, SURGICAL INSTRUMENTS PROJECT IS SEEN GOING ROUND THE TOOL ROOM WITH THE CHIEF MINISTER OF MADRAS

THE SALEM COOPERATIVE SPINNING MILLS LTD., AMMAPET WAS INAUGURATED BY SRI M BHAKTAVATSALAM ON 1-11-'64,



SRI G. BHUVARAGAN, MINISTER FOR INFORMATION AND PUBLICITY AND SRI R. VENKATARAMAN, MINISTER FOR INDUSTRIES HAVE PARTICIPATED IN THE INDUSTRIES SEMINAR FOR SALEM HELD ON 31-10-'64.





# The Deep Sea Harbour

## AT TUTICORIN

*The Tuticorin Harbour, which is at present an intermediate port, is being developed as a major harbour. Expected to be completed in four to five years time, the project is estimated to cost about Rs. 14 crores and the entire designing and construction are being done by our own engineers.*

The 3,000 mile long coastal line of India is served by 7 Major Harbours: Calcutta, Madras and Visakhapatnam on the East Coast and Cochin, Murmagoa, Bombay and Khandla on the West Coast. In addition to this, there are sixteen intermediate Ports, out of which three are in Madras State at Cuddalore, Nagapattinam and Tuticorin.

### Present Port

The Tuticorin Port lies 600 kilometres (315 miles) south of Madras Harbour. The question of construction of a Major Harbour at Tuticorin has been engaging the attention of the authorities for a long time. Out of the 16 intermediate ports, the traffic handled at the Tuticorin Port is the highest. The ships calling at this port are obliged to stand out in the open sea, approximately 5 miles from the shore, owing to inadequate depth and cargo is taken to and from the ships by lighters (sailing vessels). The cargo handled has already exceeded one million tons per year.

### Marine Characteristics

The range of tide at Tuticorin is only about a metre and there are about 700 tides every year as in the case of every other Harbour.

The fetch of the sea is only about 200 kilometres and the island of Ceylon has a restraining influence in the intensity of wave production. The waves during the North-East Monsoon are more predominant and their maximum height hardly exceeds 1.6 metres and the same height is attained more or less, during the South West Monsoon also. However, during 1961, a storm is reported to have generated waves of about 4.25 metres height. The propagation of quite a few swells of appreciable height has also been noticed.

4A

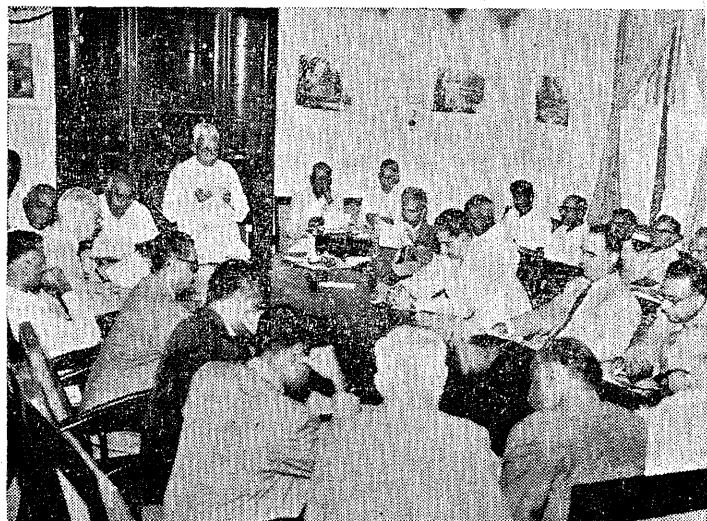
The North-East Monsoon sets in with heavy rains in the month of November and prevails till the end of January, when the wind usually blows from North-North-East. By February, the winds on the coast assume the character of land and sea breezes.

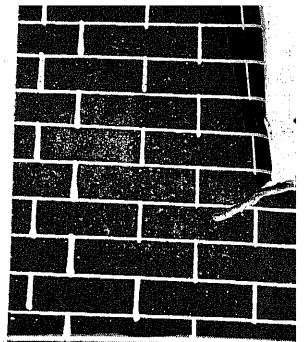
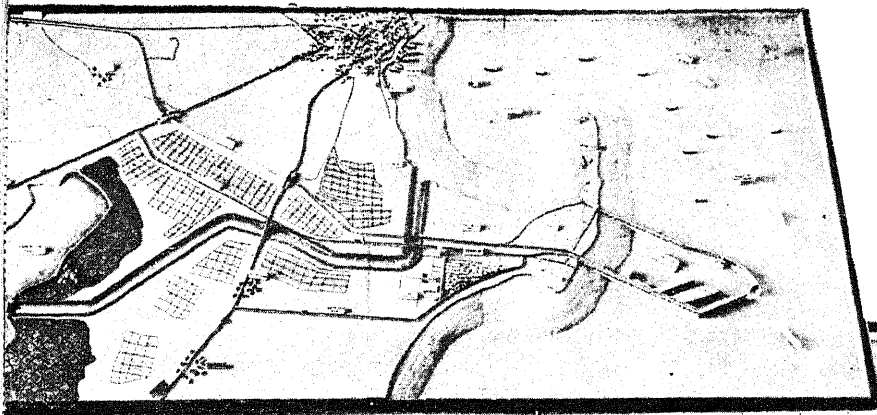
The South-West Monsoon sets in June, but the showers become less frequent by July. The usual high intensity of winds at Tuticorin is 5 Beaufort scale, corresponding to 17 to 21 knots. Sporadic winds of 6 Beaufort scale have also been observed. The prevailing wind direction is from the West. The average annual rainfall is about 625 millimetres.

### Cyclonic storms

Cyclones hit the coastline during the months of November and December, however only a small percentage of the cyclones generated in the Bay of Bengal on the gulf of mannar. The cyclones in the Arabian Sea, originating from higher latitudes than those of Tuticorin have little influence in the propagation of swells in the gulf.

Industrialists met the Chief Minister at the Secretariat on 8th October 1964.



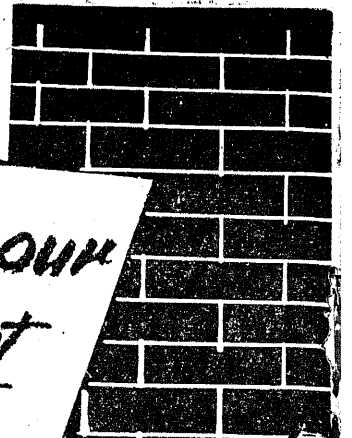
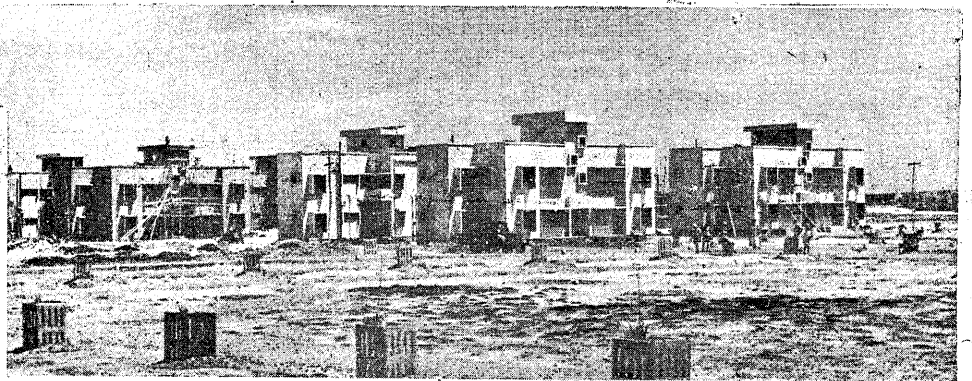
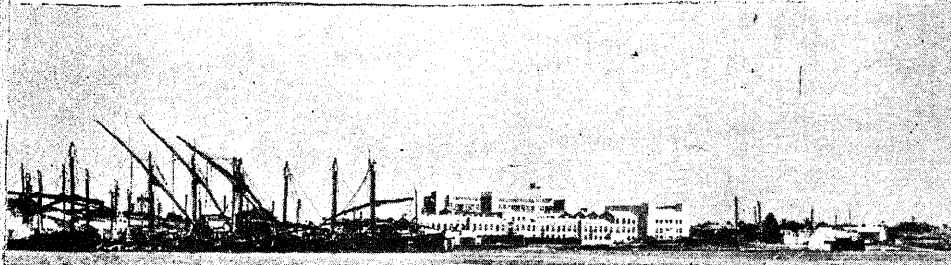
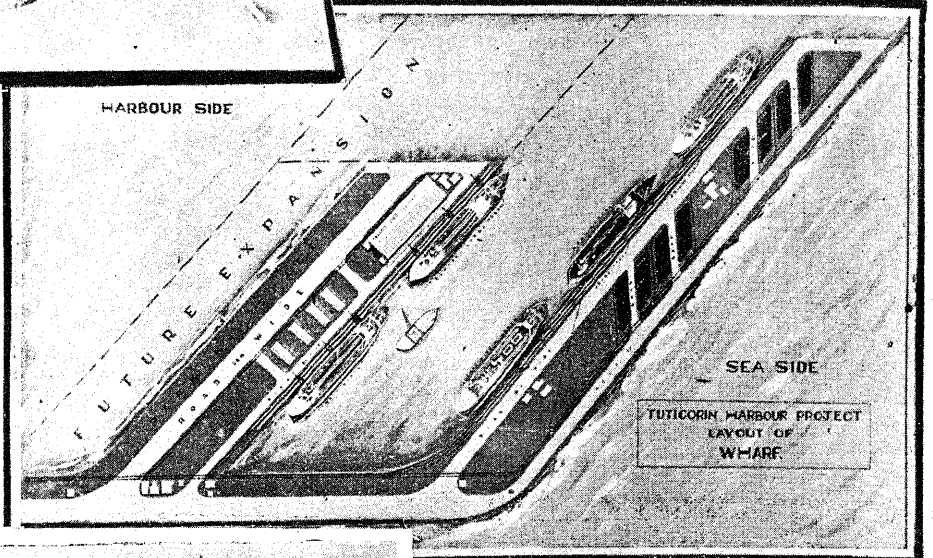


Top : A model of the proposed Tuticorin Harbour.

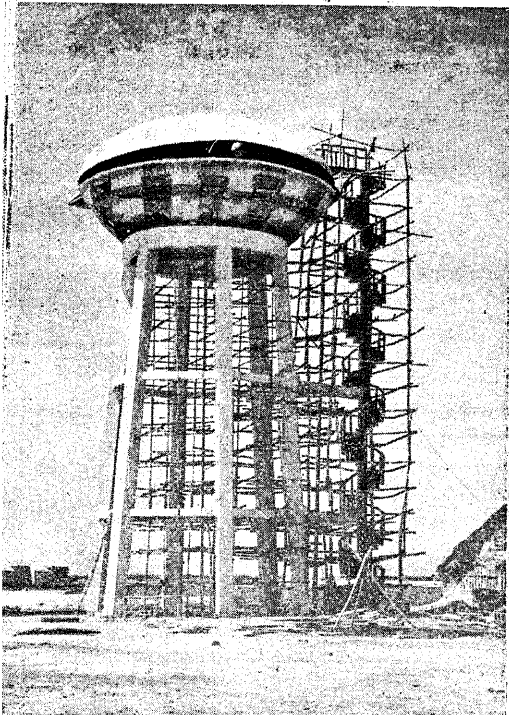
Left : Layout of the Wharf and Staff quarters.

Below : The existing Port.

Bottom : Oyster like water tank at the township.



TUTICORIN Harbour  
Project lay-out



Owing to the traffic increase at this Port, and due to the general trend in the country to develop more Harbours to handle the expanding trade, there was an immediate demand for developing a Major Harbour at Tuticorin. Although a number of proposals had been considered from 1919 onwards, no concrete progress was made, till Government of India set up the Intermediate Ports Development Committee in 1960. After studying the claims of the various Intermediate Ports, the Committee recommended the construction of a Deep Sea Harbour at Tuticorin.

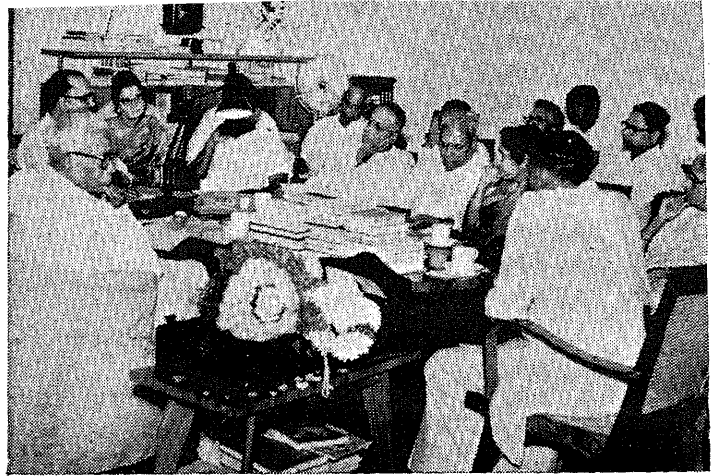
The Harbour so recommended is proposed to be located off the Hare Island, since the existing Bay close to Tuticorin has a rocky bed below. The location of the present Harbour is so chosen that it would be fairly in deep water, thereby reducing rock dredging to minimum as the bed of the Sea in that area is also rocky. The scheme involves the constructions of six berths, comprising two coals berths, one oil berth, one salt berth, one general cargo berth and one ship repairing berth as the first stage, capable of being expanded to 17 berths later on. The scheme is estimated to cost approximately Rs.-14 crores and it is expected to be completed by the end of 1969, i.e., in a period of six years.

The salient features of the scheme are detailed below :—

After fixing the location and major dimension of the harbour, a detailed examination of the design aspects of the layout was taken up by the Technical Advisory Committee set up for the purpose. On a suggestion made that the orientation of the berths should be based on the direction of the prevalent wind, so as to

### MAIN EXPORTS AND IMPORTS

The main exports from this port are salt, cement, onions, chillies and goats and sheep, and the main imports are coal, grains, machinery, empty tinnies, etc. It handled traffic of over one million tons in 1962-63. The normal loading and unloading capacity is about 4,000 tons per day. The decision to develop it as a major port has been taken in view of the intense trading and industrial activity likely to develop in the region in future.



The first meeting of the Regional Advisory Committee for organising the Film Week in Madras in connection with the Third International Film Festival was held at the Chief Minister's Chamber on 9th October 1964.

cause minimum troubles in the berthing of ships during heavy winds, an orientation of 67° 30' bearing has been adopted for the berths. A number of additional advantages are obtained for this orientation.

1. The cost of rock dredging is reduced as the berths are located in deeper waters.
2. The manoeuvrability of ships inside the harbour becomes better.
3. The railway and Road connections running on the Southern breakwater can be laid more smoothly with better curves.

### The Breakwaters

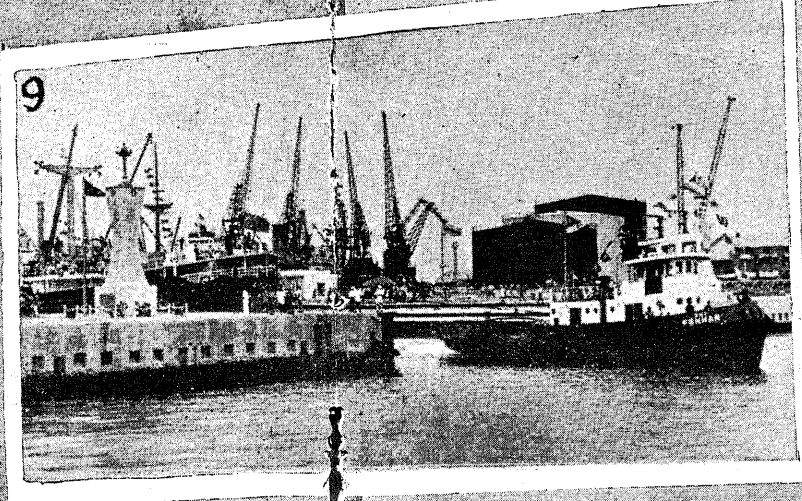
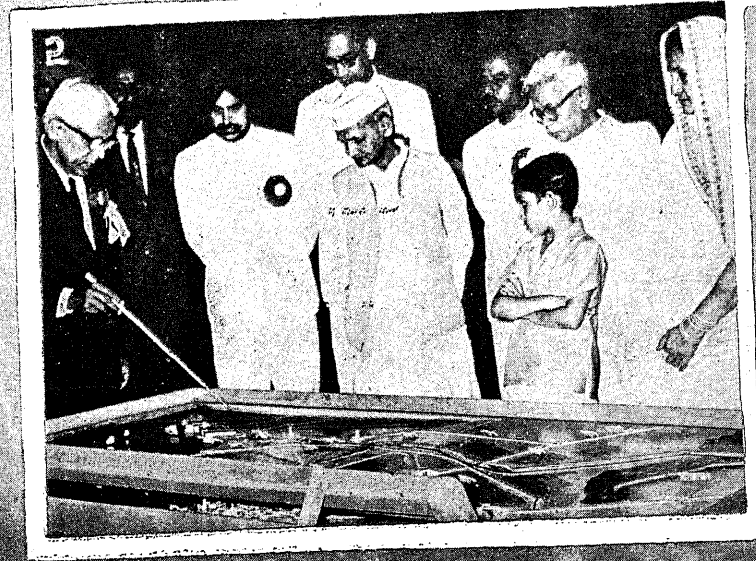
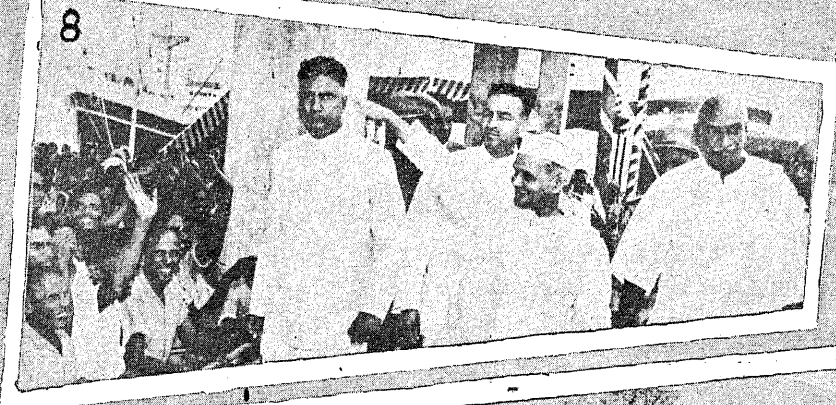
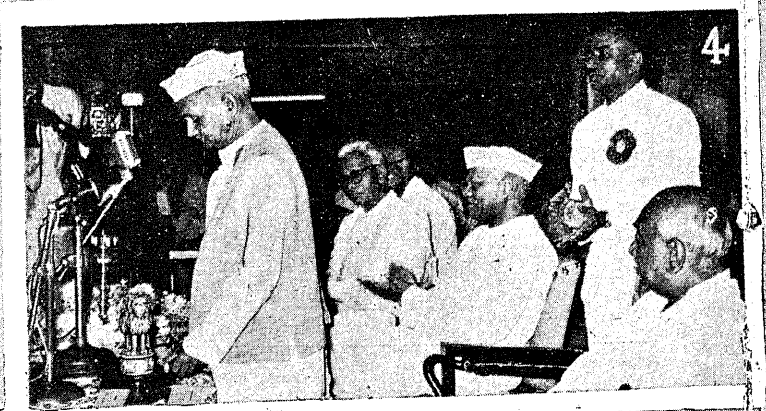
Two Breakwaters, each about 10,000 ft. in length are proposed to be constructed. The Breakwaters will be of rubble type and stones required for this of size 70 kilogrammes to 8 tonnes in weight, will be quarried and conveyed from two quarries. The smaller sized stones will be quarried and conveyed by road from the quarries at Thattaparai, situated about 20 miles away from Tuticorin. The bigger sized stones will be quarried and conveyed by rail from the quarries near Ambasamudram, 60 miles away. It is estimated that in all three million tonnes of stones will have to be quarried and conveyed from each of these two quarries. The alignment and orientation of these Breakwaters have been designed based on the Model Experiments conducted at the Central Water and Power Research Station, Poona.

The North Breakwater proposed to be constructed is of the Rubble Mound type with armour stones weighing 8 tonnes each at deep sections. The South and East Breakwaters are proposed to be constructed with two rows of R.C. Classons with sand filling.



# Prime Minister in TAMILNAD

- 1. Arrival at Meenambakkam Air-port.
- 2 & 4. Inauguration of the Deep sea harbour at Tuticorin
- 3. At Madurai Meenakshi Temple.
- 5. Inaugural speech at the Central Institute of Technology, Adyar.
- 6. With C. M. at the Function.
- 7. Addressing the Hindi Prachara Sabha, Madras.
- 8. At Madras Harbour.
- 9. Inauguration of the Jawahar Wet Dock, Madras Harbour.



RAYU

It might be possible to resort to "Vertical Wall Type" of Breakwaters, constructed in deep-waters, by assembling large monoliths in reinforced concretes which have previously been cast ashore and towed on to the site like pontoons. A composite construction with a caisson type erected over a rubble round is also envisaged. Based on economic considerations, hydraulic efficiency, constructional facility and cost of future maintenance, suitable types of Breakwaters will be designed in the various reaches.

### The Harbour design

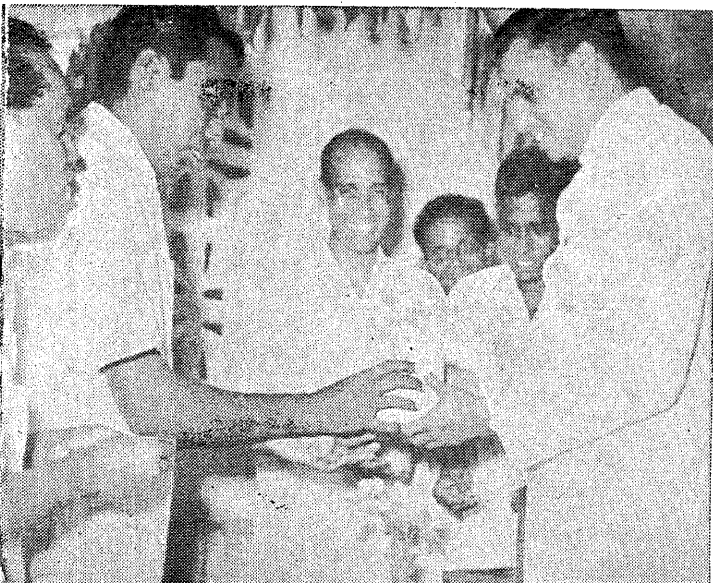
The Harbour is designed for a draft of 30 ft. But it is expected that at least one end berth will have a draft of 32 ft.

The width of the Harbour entrance has been tentatively fixed as 150 meters (400 ft.) clear at Sea bed level. The location of the entrance, which is now proposed on the eastern side will be decided upon after considering the wave direction and intensity and other factors based on the Hydraulic Model Experiments being conducted at the Central Water and Power Research Station, Poona, examining a number of possible alternatives.

A Turning Basin of 400 m. diameter will be provided for, so that, in case an oil refinery is located at Tuticorin oil tankers can be turned easily. It is also possible that in future, larger bulk carriers may have to be handled and space has to be left even now for future enlargements.

The width of the Docking Basin will be 150 metres. Equal widths have been provided in the K. G. Dock of Calcutta Harbour, Wet Dock of Madras Harbour and at Visakapattinam Harbour.

Sri G. Bhuvarahan inaugurated the Consumers' Co-operative Society of the State Governments Rental Quarters Residents Association on 15th October 1964.



A metre gauge railway link will be provided from Milavittan Railway Station to the Harbour site for a length of 12 miles. An Expressway taking off from the Tuticorin-Palamcottah road at mile 28/1 will connect the Harbour with Tirunelveli and Tiruchendur. This Expressway will be extended in due course to connect with the Tuticorin-Madurai road also. This Expressway and Rail road will be carried on the inner side of the South Breakwater to connect to the Wharves. For this purpose, a portion of 200 ft. width within the Harbour basin close to the Southern Breakwater will be filled with sand and the railway and road will be taken on this to the wharves.

### The Harbour Estate

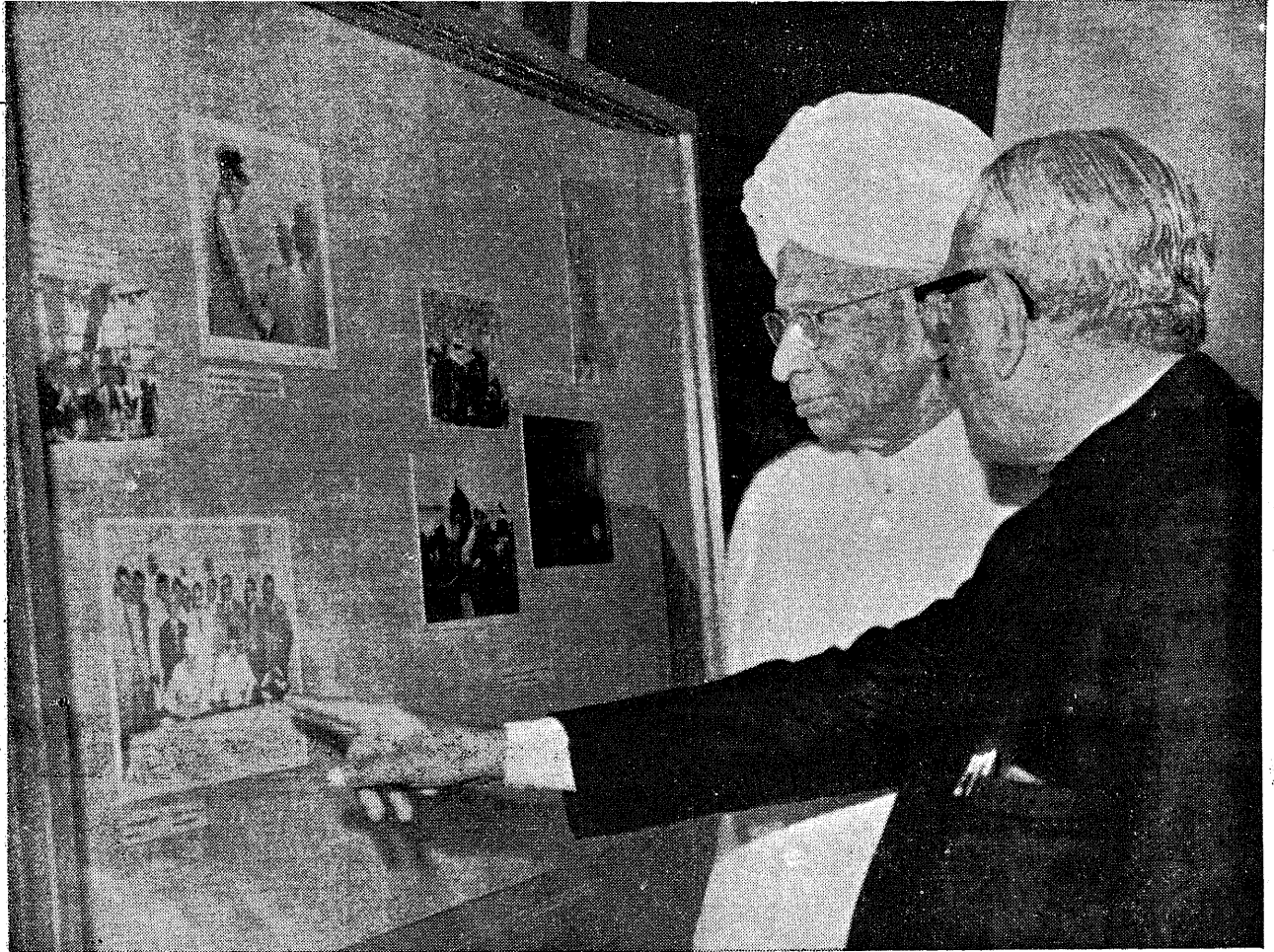
The Harbour Estate will consist of an area of about 2,500 acres and will have its own township. The quarters now constructed, will be utilised for housing the construction staff and later on for the maintenance staff of the Harbour.

The water-supply required for the Harbour will be five lakh gallons immediately on completion and ten lakh gallons later on. The Government of Madras have already proposed to take up a scheme to supply about three million gallons per day, reserved for the Harbour and Industries likely to spring up close to the Harbour area. Water required during construction stage is 1.5 lakh gallons per day.

The power required for the Harbour on completion will be 3,300 kilowatts. Power required during the construction stage is estimated to be 500 kilowatts.

### Work on the project

The work on the Project was put on hand towards the end of 1963 and works to a value of Rs. 1 crore. have been completed. The railway link from Milavittan Railway station up to Harbour point has been completed. Pending completion of the Expressway, a construction road taking off from mile 4/6 from Tuticorin-Tiruchendur road has been laid for transporting the materials, etc., to the Harbour site for construction. The first batch of quarters, 90 in number have almost been constructed. An underground reservoir of one lakh gallons capacity and an Overhead tank of 50,000 gallons capacity have been completed and water is made available at the site for construction and drinking. The buildings for the Field Offices have been completed and two Field Divisions are functioning at the site. The work on the North Breakwater has been commenced. In view of the heavy



Dr. S. Radhakrishnan inaugurated the Nehru Memorial Museum on November 14, 1964. The Union Education Minister, Sri M. C. Chagla is explaining the background of some pictures on display at the Museum to the President.

drift of sand in the area, intensive plantations have been launched upon. A 22 KV electric line has been extended to the site and power has been made available for lighting and construction. Works to a value of about Rs. 3 crores are proposed to be completed during 1964-65.

The Government of Madras have come forward to construct at their cost the Expressway up to the

Harbour limit and also arrange to supply water required and electric power at the Harbour limit.

The Harbour, when completed, will handle about two million tons of cargo. Being nearest to the Indian Ocean it is expected that trade will develop considerably at this Harbour, and a new era of industrial and commercial prosperity will be ushered in this ward part of Madras State.

### National Income in 1963-64

There was an improvement in the rate of growth of the economy in the third-year of the Third Five-Year Plan. The national income increased by 4.3 per cent in 1963-64 as compared with an average growth of only 2½ per cent in the previous years. Both agriculture and industry contributed to this improvement. Despite adverse weather conditions, agricultural production showed an increase of 2.4 per cent in 1963-64 whereas in the previous year it had declined by nearly 3 per cent. Industrial output rose by 9 per cent as compared to 8 per cent in the second-year of the Third-Plan and 6.4 per cent in the first-year.

## SYMBOL OF NATIONAL INTEGRATION

*By*

LT. COLONEL C. L. PROUDFOOT.

*The Indian Army is a true symbol of national integration and a secular society. There are as many as 1,58,000 officers and men in the Army belonging to various minority communities. Officers alone number 14,000. They work, play and fight together as one team.*

Perhaps the most eloquent testimony to the secular nature of Indian democracy is the number of officers and men of minority communities serving in its Armed Forces.

This is not only proves that there is equal opportunity or all, but the fact that recruitment to our Armed

Forces has no bar of religion or community is a significant proof of India's implicit faith in the loyalty of all her citizens, irrespective of their caste, creed or religion.

Statistics show that there are 157,897 members of the minority communities, including Muslims, in the



Far away in the lonely heights of the Himalayas, in a sequestered bunker, men of the Indian Army devote a moment to pray. They read the sacred book in the mellow light of a hurricane lamp; a white croifix, lovingly carved by devout hands, is reverently placed on a soldier's pack.

Army alone of which 13,989 are officers. Many of these officers are very senior and are in positions of trust and confidence.

By way of contrast it is interesting to note that in the Pakistan Army there is not a single non-Muslim officer or soldier in the main fighting units like the Infantry, Armoured Corps and Artillery, whilst in the rest of the Services the percentage of minority community members is as follows: Engineers, 2 per cent; Signals, 2 per cent; Army Service Corps, 1 per cent; Army Ordnance Corps, 2 per cent; Army Medical Corps, 1 per cent and Corps of Electrical and Mechanical Engineers, 2 per cent.

Soldiers from minority groups in the Indian Army are not banded together separately, but are completely integrated in every strata of the arms and services of the Army.

Even in those fighting units which are drawn traditionally from particular types like Gorkhas, Garhwalis, Kumaonis, Sikhs, Marathas and so on, officers and administrative staff are from all communities. For the most remarkable fact of life in the Armed Forces

is the strong feeling of comradeship and entity in which religious differences have little place.

As comrades-in-arms, officers and men of all communities live and play their games, serve and fight together guided by the twin beacons of country and regiment; their lives are dedicated to the safety, honour and welfare of the country and the glory of their regiments.

Amongst men whose lives are governed by such high ideals, ideals for which they are prepared to give their lives gladly, there is no place for the petty bitterness and futility of religious intolerance. It is common to see Hindu soldiers celebrating Id. Muslim soldiers celebrating Hindu festivals and Christian soldiers visiting temple, gurudwara and mosque on religious occasions. They are not only brothers-in-arms but brothers in spirit as well.

Our Armed Forces can be likened to a giant cauldron in which many different cultures and religions are met and fused into the golden metals of tolerance and service. They are indeed the greatest factors working towards the integration of our people into a single emotional entity, striving towards Jawaharlal Nehru's ideal of a truly secular nation in which individual liberty and tolerance are the guiding principles.

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### Kundah Hydro-Electric Project Stage III

An agreement was signed here today between the Governments of India and Canada concerning the construction of Stage III of the Kundah Hydro-electric Project in Madras. Under this agreement the Government of Canada contributes a sum not exceeding \$22.2 million (Canadian) to meet the external costs of the construction of three additional Power Houses with a total installed capacity of 190,000 kilowatts, the addition of an extra generating unit in each of the two existing power houses to increase their combined capacity by 55,000 kilowatts, the construction of additional storage and diversion works in the Kundah River and its tributaries, and the erection of transmission lines and sub-stations.

In 1956, the Government of Canada assisted in construction of Stages I and II of this project and contributed a sum of \$22 million (Canadian) to meet the external costs.

The Government of Canada have also agreed to the use of rupee counterpart funds generated by the sale of commodities received from Canada under the Colombo Plan to the extent of \$5 million for the first two stages and \$25 million for the third stage of the project.





# MORE NUTRITIOUS FOOD FROM ANIMALS

DR. I. D. MANTHRAMURTHI, G.M.V.C., B.V. SC.,  
*Director of Animal Husbandry, Madras.*

*The food problem today has assumed so much importance that it has become essential for us to tap all possible sources for doubling our efforts to produce more food in a much shorter time. It is here that the State Animal Husbandry Department assumes equal, if not more responsibility, than the other Departments in producing more food.*

The achievements of increased food production through Animal Husbandry Programmes require that priority should be given to such programmes that can produce quick results in raising food output of animal origin, i.e., milk, eggs and meat in a relatively short time. We are seeking ways and means to increase food output substantially and the choice of ways and means will largely determine the degree of success of our production efforts.

Another important aspect in planning for food self sufficiency through Livestock Development Programmes is the need to reduce the demand for foodgrains and to provide protective foods. It is an accepted fact that food of animal origin is superior to that of food of plant origin from the point of view of nutrition and digestibility. Yet much importance is given to the production of crops because of the possibility of substantial production through intensive methods in a short period. Production of food of animal origin is a slow and time-consuming process and has multi-faceted problems.

## **Livestock development**

In Madras State about 80 per cent of the people depend upon agriculture. Cattle are the primary source of motive power for agriculture in our State. In addition we get our requirements of milk, meat, eggs,

skins and wool from livestock. The valuable farm-yard manure which is essential not only to enrich the soil, but also to improve its texture needs no mention. Though India accounts for over 25 per cent of the livestock population of the world, our livestock do not conform to high pedigree or productivity, which poses a great problem in planning the development of livestock. Since India became independent increasing interest in livestock is being evinced, leading to the formulation of a number of schemes for its development. The objectives of our livestock development programmes have been clearly set out as follows :—

firstly to increase the supply of milk, eggs and meat a greater consumption of which is essential in order to balance the present customary diet of cereals,

secondly to provide efficient bullock power for agricultural operation, and

lastly to improve the output of certain animal products such as wool, hides, bristles, glands, bones, etc., which are industrial raw materials of economic importance.

The outlay for Animal Husbandry Development which was only 43 lakhs in the First Plan was increased to 352.25 lakhs in the Third Plan with a view to give importance to animal food.

# MAP SHOWING INCOME FROM LIVESTOCK IN MADRAS STATE

[VALUE IN CRORES]

## CATTLE

1. MILK & MILK PRODUCTS	Rs. 97.53
2. MOTIVE POWER	" 65.00
3. HIDES & SKINS	" 23.82
4. MANURE	" 7.74
5. BEEF	" 5.93
	<u>Rs. 200.02</u>

## SHEEP & GOATS

1. MEAT	Rs. 15.15
2. WOOL & HAIRS	" 2.19
	<u>Rs. 17.34</u>

## POULTRY

1. POULTRY & FLESH	Rs. 1.91
2. EGGS	" 3.90
	<u>Rs. 5.81</u>

## PIG

1. PORK	Rs. 1.57
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## OTHER LIVESTOCK

USES Rs. 31.97.



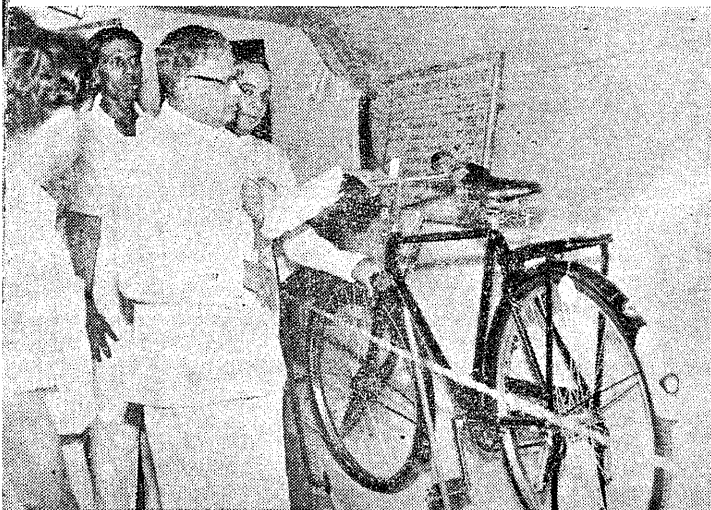
The most important food of animal origin is milk. It is needless to mention here that milk is a highly nutritious food and is needed by people of all ages, young and old, and in all conditions, in health and disease.

Unfortunately there are no definite milk breeds of cattle in our State and our local breeds are suitable mainly for work purposes. Breeds like Sindhies and Tharparkars are good milkers but they are not available in plenty in our State. Therefore, the only course now open for us is to introduce high yielding breeds from outside the State and adopt cross breeding to upgrade the local stock. This work is being done in this State through establishment of a large number of Key Village Centres, Key Village Extension Centres and A. I. Centres. In addition to livestock improvement work, these centres also educate people on scientific aspects of livestock development, controlled breeding, feeding, management and disease control. Livestock Farms have been established at Hosur, Pudukkottai, Orathanad Chettinad and Abishekapatti where interalia the production of pedigree bulls is also carried out. A dairy farm with cross-breeds at Ootacamand has also been established.

As a result of the work of the department so far, perceptible improvement has been achieved in the development of cattle of our State. At present 850,000 metric tons of milk is produced annually and the per capita daily consumption of milk has been raised to 2.5 ozs. With the introduction of pure bred Jerseys, six of which have been allotted to our State under the Heifer Project, we expect to increase milk production rapidly in our local cattle.

New breeds may come and more schemes may be implemented but neither the breed nor the scheme can yield more milk unless sufficient fodder is made available to milch cattle.

Sri R. Venkataraman, Minister for Industries who inaugurated the Industrial Seminar for North Arcot District at Vellore is witnessing the exhibits.



The shortage of nutritious fodder is the worst bottle neck in the development of our cattle. Green fodder is not only vitaminised, succulent feed for cattle but also helps the calves to develop good vision, grow rapidly, mature early, come to heat regularly, conceive effectively, calve without trouble and secrete more milk. Can we then permit such valuable feed to be in perpetual shortage? The improved cattle produced under various schemes cannot be expected to reveal their inherent qualities unless they are provided with adequate nutritious fodder. Therefore, an intensive programme for the development of feeds and fodder resources has been launched and under this programme pasture plots in State farms and in private lands have been set apart and supply of fodder seeds, fertilisers, chaff cutters and construction of silo pits are subsidised in Key village areas. Assistance is also given for fencing pasture plots in selected villages.

### Eggs

Next to milk, eggs are very popular, delicious and nutritious food material. The poultry of our State is also very poor in quality and their yield is very low. The Animal Husbandry Department has been laying very great emphasis on Poultry production, since the Second Five-Year Plan, in view of their quick multiplicity and low investment required for their development. Poultry Marketing in Madras State has so far been a village or cottage industry with no support from commercial hatcheries, commercial feed industry or organised marketing of poultry products. Factors responsible for this have been poor stock, dread of diseases, lack of appreciation of the nutritive value of eggs and poultry meat.

Achievement of these targets is by no means a formidable undertaking in these days of advanced science and technical knowledge. New methods of controlling diseases, better knowledge of breeding, feeding, housing and other managerial practices are now available for increasing the efficiency in poultry production. Most of the poultry diseases now prevailing can be prevented and controlled by adopting sanitary measures and timely prophylactic vaccinations. In a way poultry development in our State has now reached a fair level of development due to departmental activities and help in many ways. There are at present nearly 60 Poultry Extension Centres in addition to thousands of birds reared in all the Livestock Farms. The breeds that are generally in demand are Rhode Island Reds, White Leghorns, Black Minorcas, etc. Training in Poultry Husbandry is imparted to interested persons for a period of 6 weeks in Poultry farms with stipends. To

# LIVESTOCK INDUSTRY BOOK

DEPOSITS		EARNINGS	
1. Good care & management		1. Motive Power	RS. 65.00
2. Housing		2. Milk & Milk products	97.53
3. Feeding		3. Mutton, Beef & Pork	22.65
4. Breeding		4. Poultry flesh & Eggs	5.81
5. Prevention of Diseases		5. Wool, Hairs, Hides & Skins	26.01
6. Marketing		6. Manure & others	39.71
		<b>Total income</b>	<b>256.71</b>

offer incentive to the Private Poultry breeders, schemes have been introduced for the supply of day old chicks at 50 per cent cost and provision of poultry houses and incubators at half cost. Under the UNICEF Programme an Applied Nutrition Programme has been introduced in the State. Under this scheme, 7 Poultry Extension Centres and 290 Village Poultry Units have been established. The eggs produced in these units are distributed freely to pregnant women and Pre-school children through the Panchayat Unions.

An intensive Egg and Poultry Production-cum-Marketing Scheme has been introduced with Kattupakkam as its headquarters to augment the supply of eggs and table birds to the City of Madras. Under this Scheme, 300 selected private poultry breeders have been offered interest free loans of Rs. 1,000 each in the form of birds, poultry equipment, etc. The loanees are allowed to repay the loan in terms of table birds and eggs. When this scheme is fully implemented, 300 table birds and 10,000 eggs will become available to the City people daily. It is estimated that 260 million eggs have been distributed during 1961 as against the estimated production of only 99 millions during 1956. It is

expected that by the end of the Third Plan as much as 500 million eggs will be produced in our State.

The per capita consumption of eggs in this State is 7.7 as compared with 8 for the whole country, with the egg production in Madras State standing at 260 millions.

The meat requirements are 10 times of what actually is available. Even at this rate of low production and small poultry population, the poultry industry has contributed 5.81 crores of rupees to the State income in the form of eggs and meat in 1961.

## Meat and Wool

Meat is rich in proteins. Sheep, goats, cattle, poultry and pigs are the principal sources of meat. As years advance and the scientific knowledge about the superiority of food of animal origin to that of plant origin spreads more and more people will take to non-vegetarian dishes. Therefore, the prime duty of our department is to make available surplus unthrifty and unproductive cattle, sheep and poultry for table purposes in addition to improving the meat qualities of our local sheep, multiply pigs more rapidly and produce poultry for table.



Sri M. Bhaktavatsalam, Chief Minister who presided over the Industrial seminar for North Arcot district held at Vellore on 15-9-1964 is seen addressing the gathering.

According to the census of 1961, our State possesses 7.16 millions of sheep and 3.43 millions of goats. The wool produced in the State is 4,900 metric tons annually valued at a little over 2 crores of rupees. It is highly essential to improve our sheep and goats with a view to step up the production of meat and wool and improve their quality as well. For the development of sheep, Sheep and Wool Extension Centres have been established in suitable parts of the State and are successfully working. At present, there are 28 such Centres functioning and 28 more will be established shortly. Sheep Farms have been established at Ootacamund, Chinnasalem and Kattupakkam. Sheep are also maintained at the Livestock Research Station, Hosur and Ramanathapuram District Livestock Farm at Chettinad. In the Sheep and Wool Extension Centres improved rams are distributed to grade up the local sheep both for mutton and wool. People of the locality are also educated on proper feeding, breeding, disease control and management of sheep.

Our present annual production of meat is 95,000 metric tons as compared with 75,000 metric tons during 1956. The rate of per capita consumption of meat in this State which was only 5.6 lb. per annum has been raised to 6.3 lb. per annum.

### Pork

Pork is a valuable animal food derived from pigs. Piggery development is still in its infancy in this State. Pigs of good breed, fed with roots and tubers and vegetables and housed under hygienic conditions are highly prolific and are a good source of nutritious food. A sow at the Livestock Research Station, Hosur Cattle Farm, gives birth to 20—25 piglets at each farrowing. Piggery development units have been established at the Livestock Research Station in Hosur Cattle Farm, District Livestock Farms, Orathanad and Pudukkottai and Sheep Farm, Kattupakkam. Boars produced in these units are sold to breeders at concessional rates and subsidy for their maintenance is also given.

In the present context of food scarcity in order to keep under check the prices of meat, milk, eggs, etc., it is considered necessary that immediate increase in production and availability of these commodities should be secured through Crash Programmes. The increased supplies and consumption of these subsidiary foods would partially relieve food shortage, besides providing more balanced and nutritious diet to the people. These programmes aim at the increased production of egg-laying birds and meat in addition to laying strong foundations to cattle development, which is a time-consuming process.

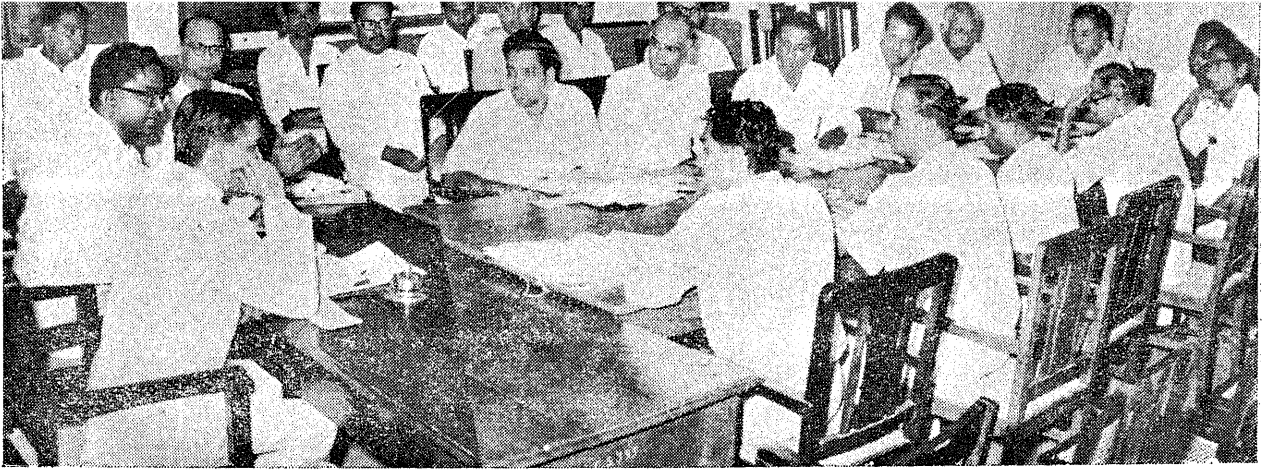
In our efforts to augment food production in the coming few years poultry rearing has an indispensable role in the programme for increasing food production. The contribution that poultry can make towards immediate and substantial increase in food output in Madras State is tremendous.

The Crash Programme for Poultry development envisages the setting up of intensive Egg and Poultry Production-cum-Marketing Centres, Intensive Poultry Development Blocks and Poultry Extension Centres and a few chick hatcheries. In addition to harness the interests of the private breeders to take to development of poultry, provision will be made for adequate subsidy and credit facilities for individual farmers and institutions. Encouragements will be given to rearing of backyard poultry, through supply of birds at subsidised rates. Suitable marketing facilities will be extended for the disposal of the products by the breeders. The efficient handling of feeding is one of the important factors influencing the profits on the poultry farms. The State Animal Husbandry Department is now planning to distribute balanced poultry feeds on cost basis through the feed mixing unit to be set up under the Crash programme.

To increase the production of meat, more sheep farms' sheep units and sheep and wool extension centres will be established in suitable places.

A pig farm with 100 sows and 20 boars as foundation stock will be established to make available boars and sows for distribution in other areas to upgrade the local stock.

Though Cattle Development is a long range programme it is proposed to avail of this opportunity to lay strong foundations for future development of various aspects of cattle development like production of milk, etc. An intensive Cattle Development Programme on the lines of the present Package Programme is also envisaged.



A three day conference of the District Publicity Officers was held at the Secretariat from 27th October 1964. Sri G. Bhuvarahan, Minister for Information and Publicity Presided.

Under this Programme intensive Cattle Development Projects will be established. In these project areas all aspects of livestock improvement like provision of breeding facilities, removal of all scrub bulls, periodic prophylactic vaccination and control of disease, milk recording, conducting shows, etc., will be undertaken.

It will be interesting to know that our State derives an estimated annual income of Rs. 256.71 crores including motive power from livestock. Introduction of the above programmes, and the successful implementation of the successive plans will not only increase our state's income but will help to raise the nutritional level of our peoples' diet considerably.

#### Under the Plans

The popular Government which came to power gave increased attention to improve the economy of the country and laid special emphasis on—

1. increased food production during the First Five-Year Plan by providing Rs. 56.28 lakhs for Animal Husbandry ;

2. increase in milk and eggs during the Second Five-Year Plan by allocating Rs. 217.48 lakhs for Animal Husbandry ; and

3. in recognition of the importance of all animal food during the Third Plan an outlay of Rs. 352.25 lakhs has been earmarked for Animal Husbandry.

It is for us to utilise the amount thus allotted under the Plans profitably for the welfare of our people. The Department of Animal Husbandry has chalked out a detailed programme for implementing useful schemes for proper education of personnel, advanced research, disease control and livestock developmental activities. The department continues to strive hard but the targets can be fully achieved only if all of us realise the importance of Animal Husbandry Programmes and extend all possible help to Animal Husbandry men wholeheartedly and work with them to achieve these objectives. It is here that every one of us has equal responsibility in producing more food and feeling a sense of satisfaction that we have worked hard and reaped the fruits of our labour.

### Small-pox Eradication in Madras

				<i>Figures upto 30-6-64.</i>
1. Population—1961 Census (in lakhs)	..	..	..	336-50
2. Primary vaccination	..	..	..	11,98,421
3. Revaccination	..	..	..	193,58,843
4. Total	..	..	..	205,57,264
5. Percent of population vaccinated	..	..	..	61.00

# The National Physical Efficiency Drive

*The interest and enthusiasm for sports and physical fitness are growing in our country. The Union and State Governments as well as voluntary sports and other physical education institutions are adopting various measures to make our people fitness conscious. To give a further incentive to this growing interest, the Government of India have been conducting the National Physical Efficiency Drive since 1959-60.*

## The purpose

The purpose of the National Physical Efficiency Drive is to create a consciousness and enthusiasm amongst the people of our country for physical fitness and to stimulate their interest for physical welfare which will help them to a better and more healthful living. The Drive is also expected to assess factors such as strength, speed, ability and endurance which go to make a person physically efficient.

It is proposed to achieve this through arranging batteries of tests in certain physical performances called the National Physical Efficiency Tests. The tests are drawn separately for men and women. They are further classified for various age-groups as indicated below :—

### Men.

- Junior : Group I—Below 18 years.
- Senior : Group II—18 to 34 years.
- Senior : Group III—35 to 44 years.
- Senior : Group IV—45 years and above.

Sri N. Subaraya Bhat, Stanley Medical College who secured 18 prizes is receiving the prizes from the Governor of Madras H. H. Maharaja Sri Jayachamaraja Wadiyar Bahadur at the annual prize distribution function of the College.



### Women.

- Junior : Group I—Below 16 years.
- Senior : Group II—16 to 30 years.
- Senior : Group III—31 years and above.

For classification of a person into a particular age-group, his/her age in completed years as on 1st October, the year in which the National Physical Efficiency Drive is being conducted, should be taken into account.

Each item of test has three standards laid down from moderately easy to fairly difficult. The highest standard is the "Three-Star" standard, the next "Two-Star", and the easiest "One-Star". The idea is that those who pass all the prescribed items at the Three Star level will be awarded a Three-Star badge specially designed for the purpose. Those who pass all the items in the second standard, will be awarded a Two-Star badge and those passing in the Third Group will get the One-Star badge. The winning and wearing of these badges will be a distinction in physical fitness and efficiency. In addition to the badges, each successful competitor will be awarded a certificate indicating his/her level of achievement.

Those who have a natural aptitude, may pass the tests at the lower level, without much training. But to attain the highest level, considerable practice and all-round ability will be required.

## The beginning

The Drive was organised throughout the country for the first two years on an experimental basis. The response from all quarters exceeded all expectations. While administering these tests, however, certain difficulties were experienced. The Ministry of Education, therefore, decided to review the Scheme in consultation with experts in the field and persons who organised and

conducted these tests. A seminar of such selected persons was organised at Lovedale (the Nilgiris) in July 1961. In the light of recommendations of the Lovedale Seminar, the Plan of the Drive for 1961-62 was finalised with suitable amendments wherever necessary. Accordingly a revised pamphlet on the Drive was also published in 1961-62. Similar steps were taken in 1962-63 and 1963-64 also. Plans of the Drive for these years were suitably revised in the light of the recommendations of

Item.	1959-60.	1960-61.	1961-62.	1962-63.	1963-64.
States .. ..	10	4	13	14	15
Union Territories ..	4	2	6	6	8
Testing Centres ..	269	157	1,128	1,647	3,259
Participants ..	77,109	20,938	1,60,000 (Approx.)	2,00,000 (Approx.)	6,00,000 (Approx.)
Winners of Merit Certificates/Stars and Medals.	42,357	13,460	78,843	1,14,799	2,55,955

The Union Ministry of Education organised the Fourth All-India Seminar of State representatives and other on National Physical Efficiency Drive at Taradevi (Simla Hills) from 28th to 30th April 1964, to review the progress of the Drive during the last five years and to discuss ways and means to give further acceleration to the Scheme during 1964-65. The Seminar has made many useful recommendations pertaining to the revision of tests battery, establishment of testing centres, expansion of the Drive so as to cover twenty lakh people of our country ways and means of giving wider publicity to the Drive, etc. The Seminar has also suggested not only revision in the tests battery in the light of the plan recommended by the Mahabaleswar Seminar, but also the classification of men and women into more age-groups with standards of achievements under each.

#### Finance not a hurdle

The competitors selected to represent the State are provided with uniform and warm clothing costing about Rs. 50 per head by the State Government. The Central Government met the expenditure on T.A. and D.A. of the competitors. (II Class Railway Fare to and from and 2 Paise per kilometre towards the incidentals). They remain guests of the Central Government during their stay at the venue of the competitions and were provided free accommodation and boarding. It is possible for all boys and girls even if the parents happen to be very poor, to try and achieve performances to qualify themselves to represent the State and to derive the benefits thereof.

National Award for best competitors in National Physical Efficiency Drive was instituted in the year 1962.

the Seminars on National Physical Efficiency Drive held in May 1932 at Mahabaleswar and in July 1963 at Taradevi, Simla Hills.

#### Progress

A Summary of some of the important statistics pertaining to the progress of the Drive over the last five years, 1959-60 to 1963-64 is reproduced below for ready reference :—

Almost all the State and Union Territories in India participated.

In the competitions held at New Delhi, Sri R. R. Beedu of the Suburban High School, Coimbatore, represented the Madras State and secured the first place among the five, who were declared winners of National Award for Men Junior.

In 1963, Sri Gunasekharan of Blake High School, Thanjavur, represented the Madras State and secured the fifth place among the National Award Winners in the competitions held at Gwalior.



In 1964, in the National Award Competitions held at Patiala, Kumari S. A. Lilly Pankajam of Monohan Girls High School, Madras was one of the two Junior Women competitors to win the National Award.



# VILLAGE VOLUNTEER FORCE

*Various items of Rural Development were attended to by the members of the Village Volunteer Force in all the Districts of the State. The following is a gist of the achievements of Village Volunteer Force, according to the reports furnished by the District Collectors.*

A school building was constructed at Ramanaickenpet in Natrampalli Panchayat Union and a reading room was constructed at Mellathur in Gudiyatham Panchayat Union. Repairs to wells, supply channels, spring channels and tanks were attended in seven panchayat Unions, in addition to the street-cleaning and digging of compost pits and tree plantation, in about 14 Panchayat Unions.

## **South Arcot district**

The estimated value of work, executed by the Village Volunteer Force, is about Rs. 4,000, which includes silt-clearance, panchayat plantations, street-cleaning, formation of roads, etc. Relief work was done during the fire accident in Serakuppam and Abatharamapuram villages in Kurinjipadi Block. About thousand glyricidia plants were planted in Tirunavalur Panchayat Union. Silt-clearance was done in Sirukadambur feeder-channel and 2,500 members participated in that work and did Shramdan for one day.

## **Chingleput district**

An additional shed to the school-building was constructed in Janakapuram in Ramakrishnapet Block. An irrigation channel was formed at Nelvoy in Madurantakam Panchayat Union. In Uttiramerur Block, an approach road was improved, at Thandarai village.

## **Coimbatore district**

The tempo of activities of Village Volunteer Force, is expected to be high in future, consequent on the training camps held at the village level, all over the district. The construction of school compound wall, was executed in Avinashi Panchayat Union. Roads were repaired in Karamadai and a few other Panchayat Unions. Gardens were formed at Thandampalayam, Godepalayam under the Applied Nutrition Programme.

## **Kanyakumari district**

The total value of work turned out by the Village Volunteer Force, is estimated about Rs. 5,000. Waste

lands to an extent of 17 acres, were reclaimed. About 12,000 members have been enrolled to Village Volunteer Force, out of which about 2,200 members took part in the various local development activities. Ninety-four compost pits were dug, six wells were renovated and glyricidia cuttings were planted.

## **Madurai district**

The Production Unit of Dindigul Panchayat Union was utilised for implementing the improved methods of cultivation. The members of Palayam Panchayat Union, have attended to the renovation of minor irrigation tanks. At Reddiarchatram Panchayat Union, 86 trees were planted, during the tree-planting week. Village pastures were developed in 12 villages, by the Village Volunteer Force members of Chellampatti Panchayat Union. In Melur North Block, land reclamation work was undertaken, at Vanjinagaram.

## **The Nilgiris district**

Kitchen garden was raised in Kotagiri Panchayat Union. The volunteers of the Defence Wing met regularly and took physical exercises and simple drills. The Mass Education Wing undertook intensive publicity for Family-Planning, Small-Scale Industries, etc.

## **Ramanathapuram district**

Channels were deepened at Muthanendal and Vagudi Panchayats in Manamadurai Block. Drinking water ponds and Urnies were repaired in a number of Panchayat Unions, such as Bogalur, Ramanathapuram, Tirupattur, etc. In Mudukulathur Block, plantation work was done in four Panchayats and a new well for public purpose, was sunk at Keeranur. In Devakottai Block, a temporary building for school was constructed.

## **Salem district**

The Village Volunteer Force was able to recruit 465 persons to Home Guards and 498 persons to Defence services. About 1,200 volunteers participated in the "Watch and Ward" work for 485 man-days during

the month. A sum of Rs. 45,483 was donated, as contribution in kind. 36,424 man-days have been donated to the Defence Labour Bank. A reading room was constructed at Sirunallikoil in Kabilamalai Block. A school building was constructed at Valapadi Block. Babool seeds were sown on the beds of Minor Irrigation Tanks in Sankari Block.

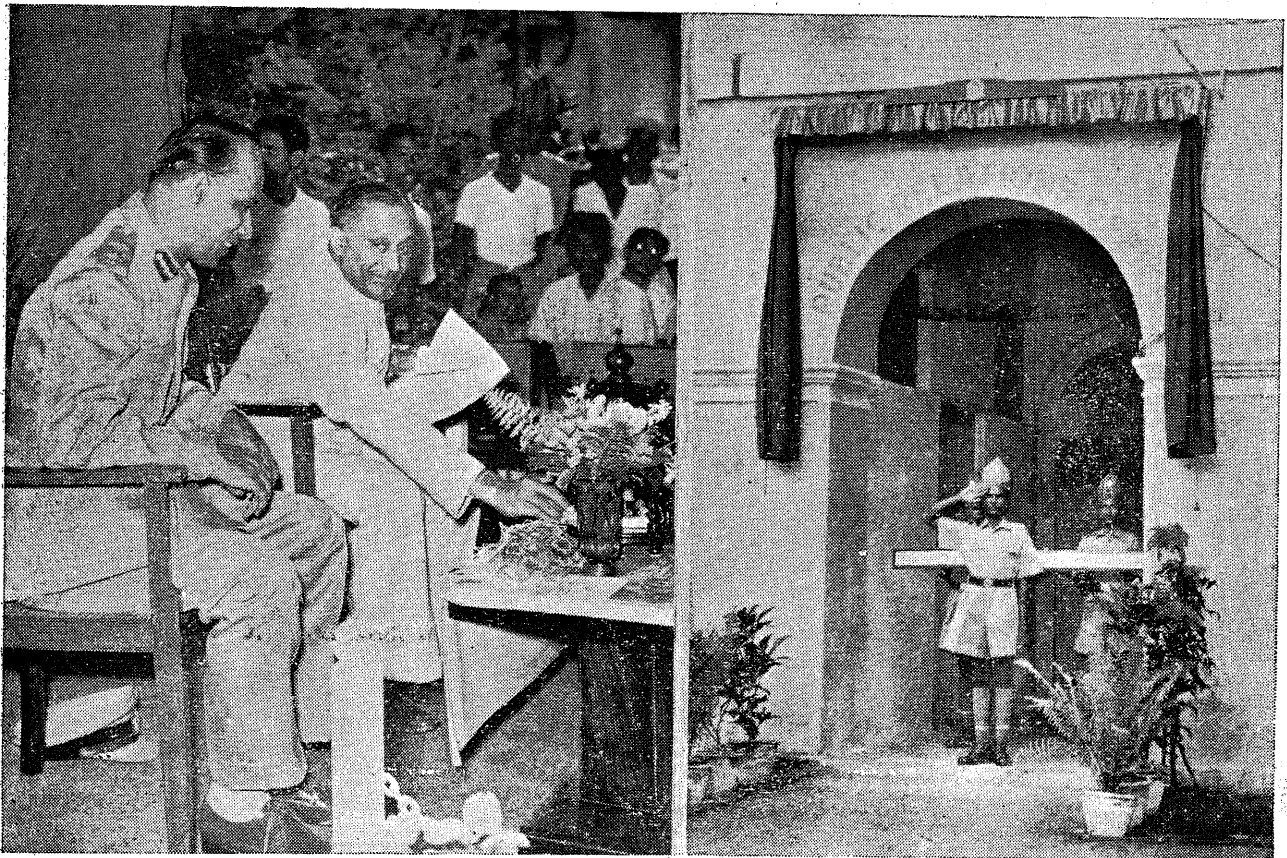
#### Thanjavur district

'Kudimaramat' work executed in a number of Panchayat Unions, along with rat eradication work. A road was formed at Andanapettai in Nagapattinam Block. In Tirumarugal Block, about 580 members attended to silt clearance of tanks, deepening of irrigation channels and formation of roads, in eight Panchayats. In all the six Revenue Divisions of the district, work estimated at Rs. 21,000 was done in a month by Village Volunteer Force members totalling about 7,290.

New roads were formed by about 1,536 members of Village Volunteer Force in Tiruvarambur Panchayat Union. Silt-clearance was done at Panayapuram and other villages in Andanallur Block, in which about 800 Volunteers participated in the work for 4 days. A check-dam was constructed at 'Vallampadukai-Kattar' at Mudalipatti in Karambakudi Block. A school building was constructed at Pappakudi in Jeyankondam Block.

#### Tirunelveli district

Repairs to streets were attended to, in a few Panchayat of Kuruvikulam Block. Compost-pits were dug and glyricidia cuttings were planted in Kayathar and Shencottai Blocks. Repairs of feed-channels were attended to at Athimarapatti in Tuticorin Block. A temporary shed for elementary school was constructed at Soorankudi in Melaneelidanallur Block.



Sri C. R. Pattabiraman, Union Deputy Minister for Information and Broadcasting has inaugurated "Public Relations Office" in the premises of the Office of the Commissioner of Police, Madras on 13th November, 1964. Sri F. V. Arul, Inspector-General of Police is also seen in the picture.

## Scheme for Dry lands



**B. A. RAHMAN**, Dip. in C.E. (Guindy),  
*Dowser, Executive Engineer, (Hydro Metric Survey)*  
*Madras State Electricity Board.*

To meet the ever-increasing demand for food by the teeming millions of our country, the agricultural produce has to be immensely increased. This could be achieved in different ways :

One way is increasing the yield capacity of the existing fields, adopting the most modern methods of cultivation suitable to our country.

For example Japanese method of cultivation, with proper manure, selection of good seeds, use of tractor, etc., is already in vogue in our country. Though an increase in production has been achieved by adopting these methods self-sufficiency is yet to be obtained. Other suitable methods should also be brought into play, to reach self-sufficiency in food production.

Officers from Imperial Defence College, U.K., met the Chief Secretary at the Secretariat on 19th September 1964.



There are large tracts of dry lands in this country. At present, they are either used for raising dry crops or kept unutilised. If these dry lands could be converted into wet lands the problem of food production could be solved to a satisfactory extent. But the real problem is the lack of water for converting them into wet lands. With a view to make full use of the available surface water for irrigation the Government Public Works Department is constructing many reservoirs by throwing dams across the rivers. The major and minor irrigation tanks and spring channels too are put to maximum use. In spite of all these a major portion of the land remains dry and is only capable of growing dry crops.

As an immediate result of the improvement now achieved in our standard of living, it is seen that even those people who were once using dry crop products like the maize, jawar, bajra or ragi have switched over to rice-eating. It is rather very difficult now to make them revert to their old habit of taking dry crop products and the only alternative left with us is to convert more and more dry lands into wet lands. How this could be accomplished is the problem demanding our immediate attention and thorough examination.

### Sources of irrigation

Water is generally available to us for cultivation from :

- Melting snow,
- Rainfall, and
- Underground water.

Except the Gangetic plain no other part of our country is benefited by the first source. As regards the rainfall, it is not uniform throughout the country. One part or other is always under condition of drought, while others are in floods. Even in places where there is good rainfall, it is not uniformly spread throughout the year. Only in a particular period of the year there is heavy rain, while for a major period there is no rain at all. With a view to mitigate the hardships caused by the vagaries of nature, man has been compelled to store the excess water available in a particular period of the year in big reservoirs and tanks for the use at the time when it is needed. Only a minor portion of the land is benefited by this water. Now let us consider the third source, i.e., the underground water.

### Underground water

Nature has provided water in abundance in the underground. Percolation aquifer and Flow aquifer are the two sources of underground water. A portion of the rain water percolates through the soil which is prevented from flowing further down by the impervious strata beneath. This is known as percolation aquifer. Thus, reservoirs, under the ground are formed. Near the tanks, lakes and reservoirs also. In these zones, if wells are sunk or bore holes are made, water will be struck. The quantity and period of the availability of water from these sources are, however, limited since their main source is rain. The supply of water from these wells cannot be depended upon, as the rainfall is not always uniform and continuous.

In contrast to the percolation aquifer, flow aquifer does not depend on rainfall. Nature has provided many flow lines of varying sizes at varying depths throughout the length and breadth of the earth. These flow lines if properly tapped will become an everlasting source of water-supply. As these lines are invariably found in all the dry lands the same could be entirely converted into wet lands if we could locate these lines and sink wells on them. The water-supply from these wells would generally be perennial and everlasting provided bailing or pumping is not done at a rate faster than the yielding capacity of the aquifers which feed these wells.

The flow aquifer can be found out by the use of Geophysical instruments and by dowsing. The Geophysical methods of prospecting water is very

complicated, highly technical requiring foreign exchange and time consuming. Hence, we cannot afford to use them.

### Dowsing or Divining

Dowsing is the method by which a few persons are able to detect the materials that lie hidden inside the bowels of the earth and help in bringing them out. The power of finding underground water is not confined to the professional and paid class of men only. It is also found among amateurs, young and old, male and female and in all classes of society. The dowsers are met with in England, France, Italy, Spain, Portugal, Switzerland, Germany, Australia, Scandinavia and the Baltic countries. In short, in all parts of the world. Dowsing has been put to use in the Western Countries from the 16th century onwards for finding out minerals and water. There are also many Societies which bring out periodical journals and pamphlets on the subject of dowsing. The most important societies, are—

- (i) The British Society of Dowsers.
- (ii) The Irish Diviners Research Association, Dublin.
- (iii) American Society of Dowsers' INC., and
- (iv) The South American Research Centre, Montevideo, Uruguay.

So far more than 500 books have been written on this subject, but still the scientific know-how of this subject has not been fully established, although field dowsing is an exception to this. Field dowsing is supposed to have been fully established as may be seen from the quotation, from Mr. M. Ash, M.R.C.S., L.R.C.F., 'I shall take it is scientifically established that the field dowsing has proved itself successful'. In the book 'The Divining Rod' Sir William Barrott catalogues many interesting instances in which the dowsers have succeeded in detecting water flow, unsuccessfully attempted by the Geologist and Engineers. It is however, a matter for regret that in India this divine gift to man has not been used for the benefit of the mankind. Only very recently a separate department has been created in the Rajasthan University for conducting experiments on dowsing.

### Cheapest, easiest, quickest

Dowsing, is the cheapest, quickest and perhaps the easiest method of finding the flow aquifer,

mines and oil fields. In this connection, it is interesting to draw attention to page 42 of the journal of British Society of Dowsers, Vol. XVIII No. 123 for March 1964 wherein a reference to an article from the "Saturday Evening Post" of December 7, 1963 has been given. The article which is entitled 'The Diviner who finds oil wells' is contributed by William Trombley. In this article the author describes how Mr. Walter J. Nelson a farmer of Kansas, using a quarter inch copper tubing often locates oil at places the Geologist had missed, in the Salina area of U.S.A. In these days when we are so badly in need of water and oil the services of a dowser could be more beneficially used for locating the flow aquifer and the oil fields.

The fields which cannot be irrigated by taking water either from tanks or spring channels are mostly irrigated by bailing water from wells. Out of the many wells only a few wells seems to have been dug over flow aquifers. Most of the wells draw water from the percolation aquifer. As stated elsewhere these wells go dry during summer days. Some of the wells which do not go dry even during summer days are actually found to be on flow aquifer. From local enquiry it will be seen that most of these wells have been located by Water Diviners.

#### Benefits

Following are the benefits of fixing the location of wells by dowsing (i.e., water divining) method :—

(i) The wells can be located on perennial water-supply lines and the seasonal changes will not have much effect on the supply position.

(ii) We can avoid providing more than one well on the same flow line.

(iii) Since the correct depth at which water will be available can be pre-determined by dowsing, it can be decided whether an open well has to be resorted to or a bore well has to be provided.

(iv) The correct estimate can be prepared and the cost can be determined accurately.

(v) As the quality of water can also be determined, it is possible to decide beforehand whether this water will be useful for irrigation purpose or not.

(vi) Since to a great extent the yield from the well can be determined, the acreage that can be irrigated can also be estimated.

Thus, by fixing the location of wells by dowsing method, the great risks that are being taken in the

sinking of wells can be avoided and many a poor agriculturist saved from becoming bankrupt. In many cases, it is seen that an agriculturist invests so much money in the sinking of a well with the fond hope of getting good water in his well, which finally proves otherwise, when he gets only brackish water or the yield is poor. I have seen a case where an agriculturist had spent about Rs. 40,000 on a well which did not yield any water, since it was not located on the flow lines. All these losses can be avoided if proper dowsers are utilised for fixing well locations.

#### Correct Prediction

Since, the dry lands, owned by private people, are already either levelled or terraced, the locations of wells can be done first in these fields to get early results. Strangely enough there are many Pseudo Diviners or Dowsers in the field who offer their services at very cheap rates and whose predictions are often found to be incorrect. Consequently to eliminate totally the risks involved to the land owner, only the services of such dowsers who could guarantee in advance the correctness of their predictions should be utilised. Dowsing is so well practised by the modern dowser that he is able to correctly predict the size of the aquifer and the depth at which water will be struck, its quality and even the approximate quantity of water available at that spot. With a jeep to move about a dowser can easily fix atleast six locations in a day. The size of the well (depending on the quantity of water that will be available) will be determined by the dowser. Depending on the size of the well the number of wells required to irrigate a particular tract of land can also be determined. The Government instead of giving subsidy for well sinking can as well as undertake to do this through special divisions of the Public Works Department. The cost of sinking wells can be recovered from the party benefited in the usual manner. This will help in increasing food production considerably.

While the well location in private lands is in progress, another party can work with the help of the officers of the Agricultural Department and mark out the well locations in Government lands which are fit for agricultural purposes. Thus without waiting for any foreign exchange or experts or machineries the entire dry land can be converted into wet fields in a short time and increase in food production can be easily realised.

FACING PAGE—1. Governor of Madras receiving the President at the Meenambakkam air port.

2. Chief Secretary, greets the President.

3. Inaugural address at the Bharathiya Vidya Bhavan, Madras Centre, foundation stone laying ceremony.

Declared open the Auditorium, Stanley Medical College.

The Governor and Minister for Food with the President.



8 - JUL 1965