

Tamil Arasi

AUGUST 1978 50 Ps.



Prevent

Fire Accidents

Do not allow children near fire



Avoid smoking in bed

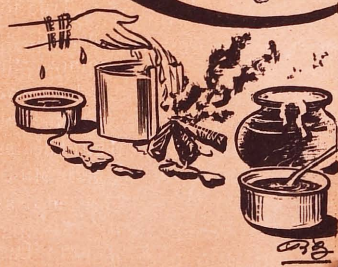


Use lamps with chimneys

Put out burning cigarette butts



Extinguish fire after cooking



**Indifference
is the cause for
fire accidents**



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

Editor's Page....

The one-day Conference of five Chief Ministers of southern states has opened new vistas in inter-State relations. This summit hosted by the Chief Minister of Tamil Nadu, the first of its kind ever held after independence, discussed, among other issues, the imposition of Hindi, paddy and sugarcane price and fiscal allocations. They are common problems concerning all the participating States. The Conference served as a forum to discuss common problems and find suitable solutions therefor. The Chief Ministers are to meet at Hyderabad next and the Hyderabad meeting would discuss the report of the proposed committee of the Law Ministers of southern States on Centre-State relations.

Political commentators need not attribute any extraneous reasons to convening of the Conference. Our Chief Minister, Thiru M. G. Ramachandran, made clean breast of the fact that the Conference had nothing to do with politics or issues of political nature. He said "We are wedded to national integration and concerned about national interest. There is no politics involved. We have taken up only people's issues."

We hope that the ensuing meetings would further cement the relationship among the southern States for better understanding of national and inter-State problems and promote concord in their relations with the Centre.

True to its avowed policy of honouring the memory of great sons and daughters of India, the Government of Tamil Nadu have acquired the house of Thiru K. Kamaraj in Madras where he lived for over three decades. Chief Minister dedicated the house as Memorial on July 15, synchronising with the 76th birthday of Thiru Kamaraj. To perpetuate the memory of Thiru Kamaraj, Chief Minister declared that the Madurai University will be christened as Kamaraj University.

An illustrious son of India, Thiru Kamaraj set high standards in public life. His life is a message of devotion to the mother land and service to the poor. Kamaraj Memorial, as it is, will be a beacon light to the youth of the country. The sectoral display in the Memorial is vividly described in a feature published in this issue.

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A New Era Has Begun



THE AIADMK Ministry completes a year in office. After the swearing-in ceremony on June 30, 1977, the Chief Minister, Thiru M. G. Ramachandran, addressing a mammoth gathering asseverated on behalf of his colleagues "We will strive hard and dedicate ourselves to give a clean, corrupt-free administration with no interference in the Judiciary. Nothing on earth can deter us from fulfilling our duties and responsibilities ; we will fight the hurdles, if any, till the last breath. I announce this on behalf of my Ministry in the name of Anna, our benefactor."

I am proud of the fact that the AIADMK Ministry has been able to acquit itself creditably and translate into action this pledge of Chief Minister.

Our Chief Minister does not like to call our work during last one year as "achievements." We have raised the infrastructure for the programmes to be implemented and have given the form and shape for achieving our goals. We continue the on-going good works and revived the useful schemes shelved previously. Our journey over the last one year is like that of an advancing army, rebuilding the blown-up bridges and reconstructing the roads. No one can afford to ignore this truth.

Our task is onerous. For, the responsibility of settling, conceding and implementing the demands of various sections of the people, which remained unsolved or unheeded to by the previous regime and the interim administration fell on our shoulders. Various problems concerning different social segments like the Transport workers, Government servants, agriculturists, industrial labour, teachers and students remained unattended to for quite

long time. When we took over the administration these problems became volcanic and erupted in the form of agitations. It was strange that the political party which failed to solve these problems when it was in power, incited and instigated the agitations. Suffice to cite an example.

The agriculturists agitated in 1972 demanding reduction in power tariff. It was not as violent as the recent agitations that we faced. The then Government let loose repressive measures to suppress the agitation and more than 20 fell victims to brutal Police firing. Besides this atrocity the D. M. K. Government increased power rate to 16 paise from 12 paise in September 1975, taking advantage of the Emergency. But we have reduced the power tariff rate to 14 paise from 16 paise in the case of big farmers and 12 paise in the case of small farmers.

The demand of the N.G.G.Os fell on deaf ears of the former Administration and intimidatory steps were resorted to in dealing with them. We are glad we have been able to meet their demands. The strike by the Transport workers in 1973 and 1975 was ruthlessly broken and the striking employees received raw dealing. Many workers were victimised. We gave succour to 98 victimised workers and took them back into service. Because of such repressive measures by the former regime and demands were rejected, the grievances and demands erupted and assumed formidable forms of agitations.

When such man-made problems continued to cause anxiety to the administration, the fury of Nature lashed the State. Human lives and properties and dwellings were lost

in the unprecedented flood and cyclone of November, 1977. The estimated losses and damages run to crores and crores of rupees. Tamil Nadu had to meet such devastation and desolation within four months of our assumption of office. With calmness and determination, we were able to tide over the situation.

Rehabilitation work was started. Huts were reconstructed. Hut grant of Rs. 200 for each as against Rs. 80/- granted by the previous Government, was sanctioned. Relief measures were undertaken on war-footing.

Despite the loss of food crops in the flood and cyclone, rice production totalled to 63 lakh tonnes as against 53 lakh tonnes in the previous year. The ban on rice movement was lifted. Check posts in the district borders have been abolished. Rice is available in plenty at a low price. Boiled rice of medium variety was sold between Rs. 3 to Rs. 4 per kg. during 1975. Boiled rice is freely available now between Re. 1.50 to Re. 1.80. This is the first time that rice price is the lowest during the last five years.

At the same time, we have fixed Rs. 90—Rs. 95 per quintal as paddy procurement price so that the farmers get remunerative price. Government have made arrangements for direct purchase of paddy from farmers. In the same manner, the prices of oil, chillies, coriander and other food articles have steadily decreased. The profiteers, hoarders, and middlemen, speculators and anti-social elements have been contained. The trade is free to operate and the consumer's interests have been protected.

The Rs. 53-crore water supply schemes of which the D. M. K. trumpets loudly include the notorious Veeranam Project and the Palar Water Supply to St. Thomas Mount, Saidapet and Alandur. The former DMK regime spent Rs. 23 crores on Veeranam Project and Rs. 2 crores for Palar Scheme. Did they bring water? No; only money was spent and expenditure details are given. We are forced to think that the former Government might have spent crores of rupees under the garb of projects and programmes. Who is the beneficiary of these so-called programmes? No one is benefited. Public money was spent like water; but no water to drink.

We have embarked upon a massive scheme of water supply schemes. Schemes to supply drinking water to 4,020 villages which have no water within a mile are under implementation. Thirteen urban water supply schemes at a cost of Rs. 275 lakhs have implemented. We have set apart Rs. 303 lakh under urban water supply scheme. We don't call all this progress in various fields as our achievement.

From 1972, power cut was a regular feature of the previous Government. Under the guise of cuts, negotiations were held and unofficial dealings were made. Power cut was removed the day we assumed office. No power cut was introduced so far.

In the field of Education, we have made new strides. The outlay on education this year is Rs. 196 crores as against Rs. 123 crores spent in 1975-76. 1,100 new teachers were appointed last year and 1,400 will be appointed this year. 109 new schools were opened. The allocation for University education has been increased to Rs. 21 crores as against Rs. 10 crores in 1975-76.

From this year all Harijan and Scheduled Tribe students will get free collegiate education irrespective of parent's income. The compartmental system for S.S.L.C. Examination has been introduced. It is a boon to the Harijan and Backward Class. It is a fact that only during last year 45 more backward classes and Scheduled Caste students gained seats in Medical Colleges. The Harijan Housing and Development Corporation is building leak-proof houses and the sanction has been increased to Rs. 2,000 per house.

In the field of transport, this Government has reduced the fare in express buses. 221 new routes have been opened up, connecting 446 villages. Government Transport employees have gained concessions costing the Exchequer over Rs. 5 crores. We were never irked and incensed by their agitations and tackled the situation calmly.

Families of Fishermen, tappers and well diggers, if they die in accident while engaged in their work, are given Rs. 5,000/- as grant.

The mission of the Chief Minister, Thiru M. G. Ramachandran, is to serve the people with the support of the poor and the down-trodden, with determination and fortitude whatever be the hurdle in the march. He thinks that every pie Government spend is common man's hard-earned money and public money should be spent fully, for the betterment of the people, without hanky-panky. This is the lesson that Anna taught us. Because of such financial discipline the per capital plan outlay has increased to Rs. 73 in 1977-78 from Rs. 59 in 1976-77. We will continue to serve the people. People should extend their support to us. If good-hearted persons say "there is no corruption, no mal-practices and no interference in administration and Judiciary" the Chief Minister will accept this assessment.

—(Excerpts from the Broadcast of Chief Minister read by Minister for Information and Religious Endowments on 22—7—78.)

Southern Chief Ministers' Conference

The Conference of Chief Ministers of southern States was held at Madras on July 16. The Chief Ministers of Andhra Pradesh, Karnataka, Kerala and Pondicherry, attended the conference. The Chief Minister of Tamil Nadu, Thiru M.G. Ramachandran, hosted the Conference. The next meeting of the Chief Ministers would be held in Hyderabad. The conference has made a significant contribution for collective thinking of common subjects and finding out suitable solutions advantageous to the concerned states and the country.

The Chief Minister's conference passed the following resolutions.

Language Issue

This conference has considered the language policy as it is being implemented today and regrets to note that not withstanding the assurance given by the late Prime Minister Pandit Jawaharlal Nehru to the effect that English would continue as an associate additional language and that the decision for the change over to Hindi should be left to the non-Hindi knowing people and not to the Hindi knowing people, and also the assurance of the late Prime Minister Shri Lal Bahadur Shastri, the former Prime Minister Thirumathi Indira Gandhi and the present Prime Minister Shri Morarj Desai that Hindi will not be imposed on the non-Hindi speaking people, there have been attempts in certain Ministries of the Union Government to covertly impose Hindi and this conference strongly opposes such attempt to impose Hindi, contrary to the provisions of the Official Language Act 1963, as amended by the Official Languages (Amendment) Act 1967. This conference desires that immediate steps should be taken to stop such imposition of Hindi on the non-Hindi speaking people and voices its apprehension that any further attempt to impose Hindi is likely to erode the confidence of the non-Hindi speaking people in the Union Government. The conference requests the Prime Minister to ensure that prompt action is taken to prevent recurrence of any action to impose Hindi.

Fiscal Allocations

The Chief Ministers resolved to request Government of India to increase the share of the State out of the divisible pool of taxes levied and collected by the Union Government to 75 per cent during the current year as an ad hoc measure.

Linguistic Minorities

This conference also emphasizes the need for the Union and the States to take adequate steps to protect the interests of the linguistic and cultural minorities in the country.

Regional Wage Policy

It was also resolved that the issues connected with a Regional Wage Policy be discussed at a meeting of the Labour Ministers of Southern States first and then brought up before the Chief Ministers.

Sugarcane and Levy Sugar

The Chief Ministers of the major cane producing States of Karnataka, Andhra Pradesh, Tamil Nadu and Pondicherry agreed that taking into account the cost of cultivation, the the prices available for other crops and the need to ensure a reasonable return for the farmer, the price of sugarcane should be fixed at Rs.125/- per tonne related to a recovery of 8.5 per cent. The levy price of sugar should be fixed on the basis of the cane price and the cost of recovery of sugar.

In regard to Kerala, the State Government will take a separate decision after further examination of the relevant factors.

Subsidy for Paddy

The Chief Ministers noted that the procurement price for paddy is Rs.77/- per quintal, while for wheat it is Rs.112.50 per quintal. They desired that the procurement price for paddy should be enhanced without increasing the issue price of rice to the consumer.

They also noted that in the Budget Estimates for 1978-79 a provision has been made for a subsidy of Rs. 23.19 per quintal for wheat, while the subsidy for a quintal of rice is only 4 paise.

The Chief Minister urged that the Union Government should come forward to give the same subsidy for rice as for wheat.

After the conference, all the Chief Ministers met the Press at the Secretariat. The Kerala Chief Minister, Mr. A.K. Antony, said that the meet was only a beginning and the Chief Ministers of the southern States would meet frequently to discuss issues of common interest. He felt such meetings would be useful as the Zonal Councils were not functioning now.

KAMARAJ MEMORIAL AT MADRAS

C. N. KRISHNA BHARATHI,
Deputy Director (Public Relations)

The house at number eight, Tirumalai Pillai Road, in Madras, has been the cynosure for over three decades. Statesmen, politicians, educated and the illiterate, rich and the needy frequented this house. The terracota pink-painted, circular-shaped and one-storeyed house where Thiru K. Kamaraj lived till his last breath has given comfort and solace to millions of poor who came from far and near. The elite seeds for many historical events in India which often changed the political map of this country were bred in this unostentatious residence of Thiru Kamaraj.

It is a simple building, with not much architectural conception; but located in a spacious compound, spotted with coconut, mango and margosa trees. The front varandah of the house is adorned with a smiling portrait of Gandhiji. The wooden panel with an inlaid figure of Nardhana Kali does not escape visitor's eye.

The room on the left side was used by Thiru Kamaraj as his bed room during his last days as he could not climb the stairs. It was once his reception room where he used to receive his visitors. The cushioned sofa had been the dumb spectator of seeing millions of people and their leader who used to hear the callers attentively and arrange to solve their problems. The walls are adorned with the photographs of the leaders whom he loved and respected. A large group photograph shows him with his "Guru" Satyamurthi, Nehru and Thirumathi Rukmini Lakshmiopathi and others. Another with Nehru, U.N. Dhebar and Rajaji taken at the historical Avadi Congress Session. Near his bed are the photographs taken with Nehru, Lal Bahadur Shastri, India Gandhi and the Mother of Aurabindo Ashram taken at Pondicherry. There are also portraits of his bosom friend and confidant T. T. Krishnamachari and that of Rajendra Prasad.

"The Times of India" dated 2nd October, 1975 and the Tamil Weekly "Tuglak" dated 1st October were lying at his bedside on the day of his death. They are kept for public view. On the windows are displayed one pith model of Trichy Rock Fort, a chinese cloth doll, a fish-shaped flag stand and a large model of a plough which was presented by Cine artistes. His permanent possessions in that room are his small-sized alarm time piece, a weighing machine and a pair of black chappals of rustic type.

The room on the rightside was used as the office room by his Personal Assistants when he was the Chief Minister and President of Indian National Congress. All his books, an invitation from the United States which he politely declined are kept here. Eventhough he had no belief in horoscopes, some of the notebooks with his horoscopes written and presented to him by some astrologers are found in his collections. Some of the typed papers on election results were preserved carefully by him.

His collection of books are quite interesting. A complete set of Kambaramayana with book marks at various pages show his interest in this classic. His close associates say he took a lively interest in Kambaramayana and other Tamil Literature in his last days and he used to enter into discourse with scholars. In addition to a big collection of Tamil Books covering a wide range of subjects from literature to current politics, he possessed a good number of Books in English. The biographies of great leaders, works of philosophers, thinkers and statesmen which he collected and read are quite revealing. A close scrutiny of his books and collections will show that he had reference books like different editions of Dictionaries, Grammar books and Encyclopaedias.





*Union Energy Minister P. Ramachandran &
State I & PR Minister R. M. Veerappan visited the Exbn.*

He had shown special interest in children's books and albums.

The crockeries, cooking utensils, shaving set, etc., he used at New Delhi are displayed in this room. The cushion chair he used to sit during all discussions in his New Delhi residence has been specially brought from Delhi for exhibition in this room.

Kamaraj used a corner of the spacious inside hall as his dining place as he dined lonely his spartan food, on an old fashioned table.

The wall space of the hall has been used for exhibiting the photographs depicting his life and important events. A rare photograph of five-year old Kamaraj, with ornamental coat and cap on is quite interesting. His early day photographs with his friends after his release from prison, photograph with Satyamurthi, Nehru, Sarojini Naidu and pictures of his early thirties are displayed. Thiru Kamaraj as the President of Tamil Nadu Congress, photographs with the then Chief Ministers of Tamil Nadu and his historic reception to Gandhiji at Avadi Railway Station are also kept in this section.

The photographs showing Kamaraj as the Chief Minister of Tamil Nadu from 1954 to 1963, participating in various functions, incidentally one with our present Chief Minister can be seen in this section. Kamaraj as the President of the Congress and his visit to Soviet Russia are photographed and exhibited. The photographs with his contemporaries starting from Rajendra Prasad, Nehru, Patel, Rajaji, Vinoba, Lal Bahadur, Nanda, Periyar, Anna, Jeevanandam, Baladandayutham and others find a place in the next section.

The next interesting section in the main hall of the ground floor is the display of the Accounts written by Kamaraj in his own hand for the Sattur Political Conference held in 1923. Periyar E. V. Ramaswami presided over this conference. The names like V.V.S. Iyer, Subramania Siva, Thiru Vi-Ka who played a notable part in freedom struggle are mentioned in the Accounts books. Account for even one anna has

been maintained scrupulously in a clean cash book. His personal letters to his friends in prison written in the year 1933, can be seen in this section.

Main hall in the first floor of the house was his bed room-cum drawing room for a long time. He used to sit in the bed across the room and high dignitaries, top ranking leaders of the country were closeted for hours for discussion in this memorable room. His simple has tray and other things like nail cutter and scissors were found near his bed. This long hall now has been fully utilised to exhibit many of the presents mementoes and souvenirs he received in India and abroad. Hundreds of silver scissors, silver maces, silver ivory and sandalwood caskets in dainty shapes are on display in this hall. The

medallion caskets and tea sets presented in Soviet Russia are really interesting pieces. The walking stick presented by Tunku Abdur Rahman, the sceptre presented by Kunrakkudi Adigalar, the silver implements, peacocks and earth removers, presented when he inaugurated the Bangalore-Salem Railway lines, icons, gold laced shawls from Nagaland, embroidered carpets, variety of pens, electrical gadgets like tape recorders, electric shavers and tooth brushes, cigarette cases are displayed in the hall.

The most inspiring exhibit in this floor is the suitcase which he used for one of his travels during his last days. It contained his usual clothings, toilet set and cabinet-size photograph of his mother. His brief case contained a towel, shaving set, one time-piece and an interesting book "MAKE THE MOST OF YOURSELF" by Lee R. Steiner. On the walls the painting portraying his mother and himself done by K.C.S. Panicker and some other photographs of Gandhi, Nehru and Indira Gandhi with his mother kept unchanged as before to embellish the room.

The bed room used by him in the later years with attached bath and simple fittings for reading at late nights is near the open verandah of the first floor. Some of the books he studied during these days are kept there. A portrait of the Mahatma adorns the wall.

There has been a steady stream of visitors to this Memorial. The old recollect their days with Kamaraj and his services to the people; the young learn a lesson from the displayed articles; Kamaraj's self-less life, as integral part of Indian national life and as displayed in the Memorial, is a perennial fountain of inspiration to the young.

Tamil Nadu can take legitimate pride in converting this house as a Memorial dedicated to the memory of this illustrious son of India who has left an indelible mark of devoted service to the masses. We hope the Kamaraj Memorial will remain as a source of inspiration for millions of people in our country.

KAMARAJ

a friend of the press

K. V. NARAYANAN, CHIEF OF BUREAU, U.N.I.

If there was one political leader in India in recent years who rose to national eminence without getting publicity boost from the press, it was Mr. K. Kamaraj who had been in the public life for more than five decades. Nevertheless he had maintained cordial relations with members of the Fourth Estate whether he was the all powerful President of the then ruling party or lonely sick man in his last days.

There had been several political leaders in the country who revelled in public controversies (no paucity of such characters now) by issuing frequent statements to keep themselves in the public gaze. But Mr. Kamaraj kept himself above controversy and refused to enter a public debate whatever be the provocation.

There were a number of instances when he allowed the controversies just to die down without himself getting into it. One such occasion was in 1963 when he was bitterly attacked by Mr. S.K. Patil who had been dropped from the Nehru Government under the famous Kamaraj Plan. Mr. Patil had stated

that it was a deliberate plan to drop persons like him without any rhyme or reason. Although Mr. Kamaraj himself initiated the move by 'opting out of Government, he did not choose to enter the controversy.

Another instance nearer home was concerning the former Chief Minister, Mr. M. Karunanidhi. The DMK Chief Minister made a public statement that Mr. Kamaraj had agreed to support him in his fight for State Autonomy. Mr. Karunanidhi went on repeating it at various public meetings. As there was no confirmation or contradiction from Mr. Kamaraj, Mr. Karunanidhi exploited the situation to the fullest extent possible. A few days later some of us met Mr. Kamaraj and sought his views. In his characteristic style he said "it is all lies". When we asked him why don't you contradict him, Mr. Kamaraj replied "what is the use? If I deny he will persist and repeat the lies. The newspapers will give prominence to the Chief Minister's statement and not to mine." After a few days, Mr. Karunanidhi stopped using the

name of Mr. Kamaraj in his campaign.

Whether in office or not, Mr. Kamaraj always liked to talk to newsmen. He would also like to hear political gossips from them. But one thing he was very particular that those who talked to him should enjoy his confidence.

While he did not bother about any kind of virulent attacks, he was very touchy when his views were distorted or misrepresented.

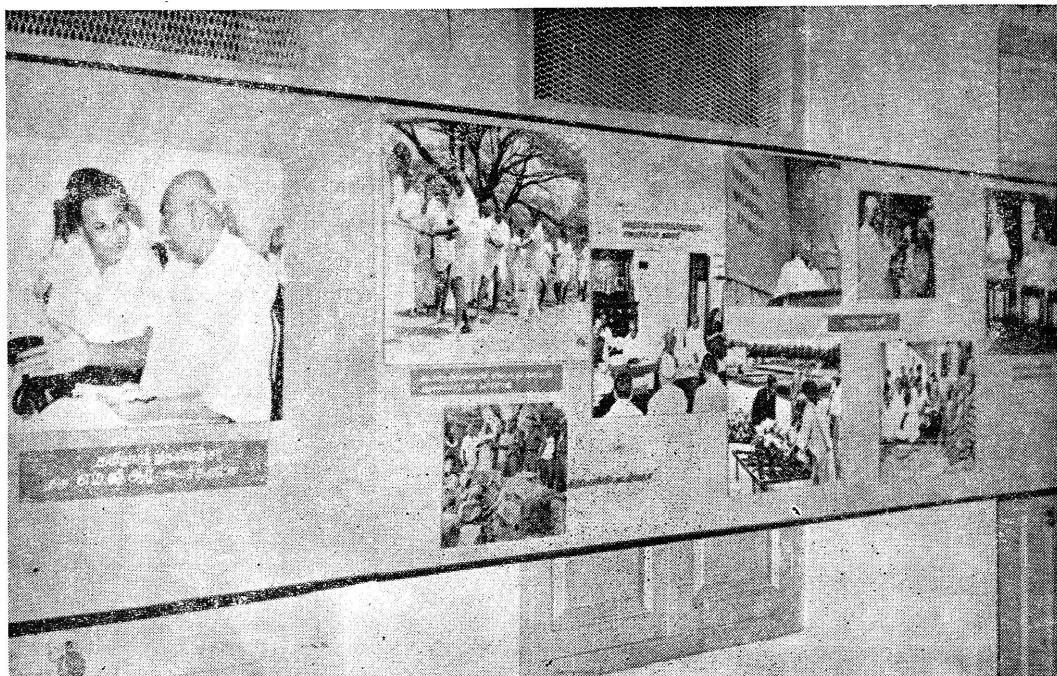
He believed in the golden rule that time would solve all the knotty problems. His oft-repeated "*paarkalaam*" (let us wait and see) as an answer to all the difficult questions had earned a national reputation. He was also jokingly called as "*Paarkalaam Nadar*" by his close friend Mr. N. Sanjeeva Reddy.

Although Mr. Kamaraj used to get annoyed when somebody involved him in a controversy, he also had the great quality of forgetting and forgiving. Once he had asked a reporter of Tamil Daily to get out of his room for publishing a story alleging a clash between him and Mr. C. Subramaniam on the selection of Congress candidates for the general elections. "What does your proprietor think and what sort of yarn he is spinning?" he flared. The reporter meekly replied "Sir, you know the mind of my boss better than I do." Mr. Kamaraj immediately calmed down and said "Yes, I know him better than you do. What is the point of blaming you for your proprietor's mischief."

During his long chats with reporters he used to share his thoughts on the most national issues facing the country. He used to narrate the role he had played in the selection of Mr. Lal Bahadur Shastri and Mrs. Indira Gandhi as successive Prime Ministers by evolv-

Tmt. Jothi Venkatachellum, Kerala Governor, was taken round the Memorial.





A section of Kamaraj Memorial

ing consensus. He also used to give his candid views rather pragmatic ideas on the economic problems.

During the early days he used to be very brief in his public speeches. He had not spoken in the legislature or Parliament, although he had been a member of one of the legislative bodies except for a brief spell. After he became the Chief Minister, he started making long speeches. They were sort of a dialogue with people and most appealing. He spoke in the language of the people. He was the first Tamilian to make a presidential address in his mother tongue at the Bhubaneswar Congress in 1964. He did not suffer from any inferiority complex.

Despite his becoming the "King Maker" as President of the then ruling Indian National Congress with the responsibility of choosing two Prime Ministers, he had never lost his rustic humility.

He had never lost the equanimity when both the persons whom he had chosen for the highest executive post of the country started ignoring him after climbing the ladder, with his help.

One could recount many instances that bespoke of his greatness

as a leader captain and commander as the situation warranted.

In 1968 there was a merciless police lathi charge on a peaceful procession organised in Madras city by poet Kannadasan. On hearing of the police atrocity, Mr. Kamaraj became furious but did not lose his balance. He asked his partymen to organise a silent protest march. It was a sight for gods to see thousands marching silently with the only sound of footfall. This evoked praise from no less a person than Mr. C. N. Annadurai himself.

At sixty he had touched the pinnacle of glory. His birthday was celebrated with the greatest pomp and show by his friends and admirers (who had subsequently deserted him after he lost power). Mr. Kamaraj did not relish the fanfare but his courtiers would not give in. He had become a virtual prisoner among his admirers, followers and courtiers. When the gaiety was reaching the crescendo at the Satyamurthi Bhavan, Mr. Kamaraj suddenly noticed the presence of Rajaji who had come to greet him. Immediately he brushed aside his hangers on and approached Rajaji and sought his blessings, despite the fact the elder statesman was a trenchant critic of Congress then. He later told his friends he valued

Rajaji's presence more than anything else.

The great moment of his life came when he voluntarily stepped down from the office of Chief Minister to take up the party work. He did it without regret or remorse. It still remains unparalleled in India.

The greatest shock came when he heard the declaration of emergency in June 1975 while he was at Tirutani. When I talked to him over trunk phone, he sounded sad and bitter. He gave a statement that the act of stifling democracy would do no good either to the then Prime Minister Indira Gandhi nor to the country. He continued his tour for three more days during which he attacked the declaration of emergency. On his return to the city he slipped in the bath room and confined to bed.

In the last days he was very bitter and angry. Just a week before his death I had an opportunity of having a long chat with him. He was highly pessimistic and cynical. But none of us expected his end would be so soon.

When he died, Newsmen felt they had lost a good friend though he seldom provided them with good copy.

Agricultural Development in Madurai District

J. BALRAJ JOSEPH,

Deputy Director, Agriculture, Madurai.

Madurai District, one among the 15 Districts of Tamil Nadu, is not only renowned for its pilgrim centres like the Meenakshi Temple, Thirupparangundram Murugan Temple, Palani Temple and Tourist Summer Resort of Kodaikanal, Thekkadi Lake, but also it is famous in Agricultural field and all crops are grown in this district under different climatic conditions. Though some parts of the district are prone to drought, this district fared well in 1977-78 in Agricultural Production. The Agricultural Developmental strategies for the district were so modified to meet the challenge of early drought prevailed in the district and the heavy cyclonic rains lasted in the later part of the season. With all these natural calamities experienced during the year the district had a breakthrough in the field of Agricultural Productions.

The Agricultural Department has to its credit in increasing the Agricultural Production and record yields were obtained in some fields, particularly Rice. Introduction of high yielding varieties, Soil fertility management, provision of suitable crop patterns, pest crop management technique, all contributed by this department, were fully made use of by not only the big and progressive farmers but also the economically weaker sections utilised the opportunity and assisted the department to fulfil the wishes of the masses. The district achievements made during the year 1977-78 are summarised below.

Food Production

Now Madurai district has not only attained self sufficiency in food production but also it is in a position to export to other States. The food production during 1970-71

stood at 4.41 lakh M. Tonnes which steadily increased to 5.32 lakh M. Tonnes during 71-72 and 5.82 lakh M. Tonnes in 75-76. The anticipated final production for 77-78 will be 6.99 lakh M. Tonnes. The growth rate of food production during the last 5 years is 31.9% which accounts for an additional production of 1.41 lakh M. Tonnes. The per hectare Rice production has also increased from 1,845 kgs. in 1970-71 to 2,500 during 77-78.

Improved Seed Distribution

There are six State Seed Farms in the District for the production of good quality seeds besides a seed production centre under the control of a Dist. Agricultural Officer (Seeds) The quality control of seeds is looked after by a District Agricultural Officer (Seed Certification). During 77-78, 1,543 acres in paddy, 163 acres under hybrid millet seed farms were organised from which 1,743 M.T. of certified paddy seeds, 122 M.Ts of Millet seeds were procured. During the year 77-78, 791 M.Ts of certified paddy seeds, 166 M.Ts of millet seeds were distributed to growers through 71 Agricultural Depots.

Fertiliser Distribution

Fertiliser is one of the important factors of food production. Our past experience shows that 60% additional production can be achieved by adoption of better crop management practices and optimum use of fertilisers. Spectacular achievement has been made in fertiliser field since last 10 years. The off-take of fertiliser during 1967-68 was 6,200 M.Ts of N, 1,250 M.Ts of P only. This consumption shot up during 1977-78 to 26,500 MTs of N, 9,400 M.Ts of P, 12,530 MTs.

of K to the tune of Rs. 14.5 crores. Due to the increased off-take of fertiliser the estimated additional income of the farmers is about Rs. 60 crores. There was scarcity of 17:17:17 complex fertilisers during the year in the peak planting season which was boldly faced by making alternate arrangements to get adequate fertilisers from other districts. By this effort 10,234 M.Ts of 17:17:17 complex fertilisers were moved into the district and distributed in time.

Plant Protection

Plant protection work was intensified and plant protection chemicals worth of Rs. 71 lakhs were distributed against the maximum turnover of Rs. 40 lakhs in previous years. In the flood affected areas alone Rs. 35 lakhs worth of chemicals with Rs. 8.69 lakhs and 25% subsidy were distributed on priority basis to save 20,000 MTs. of farm produce. Mass grounds spraying in paddy in 11,542 acres, 10,672 acres in groundnut at a cost of Rs. 5 lakhs was undertaken by the department and a spraying subsidy of Rs. 3 per acre was extended to the tune of Rs. 66,643. The sudden out break of fulgorid in paddy in Sholavandan and Palani areas in 5,000 acres was arrested and Rs. 1.4 lakhs worth of plant protection chemicals were distributed which resulted in a saving of nearly 1,000 M.Ts of paddy.

Prodenia caterpillar in cotton crop caused a severe damage in Periyakulam and Dindigul divisions. Timely control measures by organising special squads were undertaken in 3,000 acres. Severely affected areas were declared for eligibility of getting plant protection chemicals at 25% subsidy. 1,173 acres were adopted as intensive care units where plant



protection chemicals were supplied at 25% subsidy. The subsidy alone accounted for Rs. 4,360.00 for this purpose.

Agricultural Information

There was a great need to take the results of research to the farmer's fields for mass adoption. The Agricultural information unit Madurai, played a major role in communication field. It adopted various channels of communication of Agricultural technology to the farmers at short notices. During the year timely actions were taken to release 176 pamphlets, 23 wall posters, 7 technical bulletins, 194 press reports, 641 service announcements in All India Radio and 609 film and slide shows were conducted in rural areas. The information support was fully extended to other areas of operation in their promotional activities.

Soil and Water Management

Soil and Water Management is a must for increased Agricultural production just like other factors of production. In Periyar tail end areas the water distribution system was facing a crisis which warranted a pilot project to demonstrate the

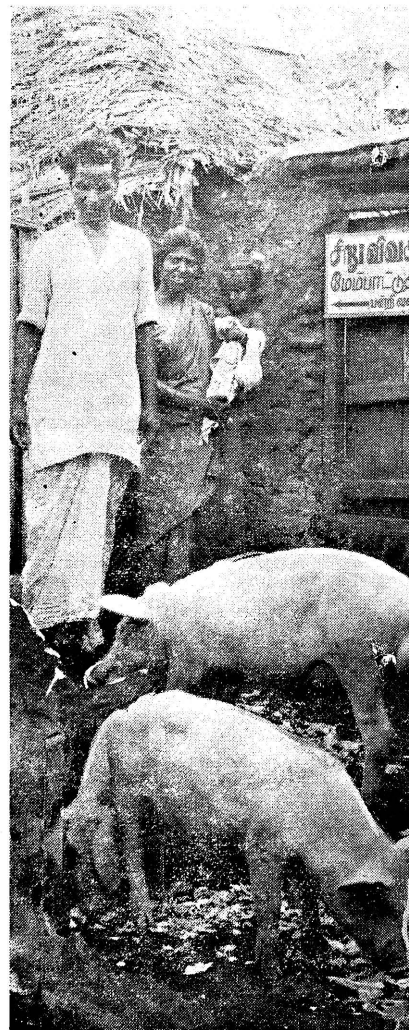
farmers on proper soil and water management practices. The pilot project was started in Melur with a view to educate farmers on optimum use of water, land shaping, strengthening of field bunds and channels, provision of separate irrigation and drainage channels to each field to avoid field to field irrigation. The irrigation channels are cement lined to avoid seepage of irrigational water. By implementing this project the existing area will get stabilised and additional area will be brought under irrigation by saving loss of water in seepage. 535 acres were completed under wet land shaping programme at a cost of Rs. 1,22,467 in which 75% is treated as subsidy and the balance is to be paid by the farmers in easy instalments.

Flood Relief Works

Madurai district was worst hit during last November Cyclone and floods causing damages to crops in about a lakh of acres. Timely technical know-how was extended to save and rejuvenate the crops affected by heavy rains. 6,926 acres in Vedasandur were sand casted due to Kudaganar dam breach. The soil erosion was on to five feet in that areas. The depart

mental bulldozers numbering 46 were pooled and were engaged in reclamation. 3,050 acres of sand cast areas were made fit for cultivation in a short period at a cost of Rs. 28,04,000. 1,430 small farmers were benefited by this programme whose lands were reclaimed at free of cost with a total outlay of Rs. 13,13,600. Rs. 14,90,400 was spent for 1,620 big farmers whose share is 50%. 154 coconut seedlings to 11 farmers were distributed at free of cost to replace the uprooted coconut trees by cyclonic winds.

In Madurai division, Ponmeni village was severely hit by heavy rains and floods. The entire betel-wine gardens were damaged in 147 farmers's holdings in an extent of 36.23 acres. The Government of



Tamil Nadu was kind enough to bear the burden of farmers and paid Rs. 18,115 as subsidy at the rate of Rs. 500/- per acre for 147 farmers.

Soil Conservation Scheme

Soil is first and foremost important factor of Agricultural Production and the top soil plays major role in crop growth and yield. This rich top soil is often eroded by rain water and winds. Eroded and sand cast areas become uncultivable lands. To avoid the most valuable top soil being eroded, Agricultural Department has undertaken the soil conservation work in this district in 3,465 hectares.

Contour bunding work was completed at a cost of Rs. 19,22,000 with 25% subsidy. To control wind erosion provision of wind belts and shelter belts with live trees were made in 4,083 hectares at free of cost. To conserve run off water and also to increase the ground water potential 48 percolation ponds were constructed in this district.

Small Farmers Development Agency

With the object of improving the poor lot of the rural areas, the Small Farmers Development Agency is functioning in this district. The small, marginal farmers and Agricultural labourers are benefited by this Agency. They are provided with loans, required inputs at subsidy rates, storage facilities and dairy development scheme. 21 Blocks are getting benefited by this Agency. All the participants are also provided with technical know-how in Agricultural, Animal Husbandry and irrigation programmes. The following are benefits extended to the farmers in this district during 1977-78. **

Under Small Farmers Development Agency, all small, marginal farmers and Agricultural Labourers are best served with all requirements of inputs, credit technical knowhow to improve their standard of living.

The farmers of this district have contributed much in stepping up production inspite of hardships faced during last year. The Agriculture Department has come forward to meet any challenge posed by natural calamities such as drought, floods, etc.

Scheme * *	Subsidy given in lakhs of Rs.	Farmers benefited			
		Small	Marginal	Agri. Labourers	Total
1. Agriculture	4.01	9,915	6,748	..	16,663
1. Crop loan					
2. Inputs supply at subsidy rate	0.87	..	2,049	..	2,049
2. 3. Grapes Cultivation	0.19	34	..	..	34
4. Demonstrations	1.04	495	330	..	825
5. Agri. implements	0.24	219	1,132	284	1,635
6. Power sprayers	2.13	306	348	..	654
7. Hand sprayers	0.41	79	250	..	329
8. Bullocks	1.87	402	47	..	449
9. Bullock carts	0.44	95	15	..	110
10. Hand levelling	1.12	240	219	..	459
11. Tractor ploughing	0.27	484	206	..	690
Minor Irrigation Works					
1. New wells	0.31	59	2	..	..
2. Deepening of wells	0.32	68	..	..	..
3. Pumpsets	0.44	52	8	..	..
Animal Husbandry :					
1. Milch animals	10.22	201	1,081	722	2,004
2. Cattle shed	0.20	16	36	..	52
3. Maintenance of Milch animals	0.16	106	637	802	1,545
4. Sheep rearing	1.66	111	133	..	244
Construction of storage godowns :					
Grain storage godowns	0.12	47	69	..	116
Total	26.02	12,929	13,310	1,808	28,407
Loans sanctioned in lakhs of Rs.					
		<i>Amount</i>	<i>Benefited farmers</i>	<i>Subsidy given Rs.</i>	
1. Short term loans		196.25	16,663	4.01	
2. Medium term loans		72.78	11,161	27.20	
3. Long term loans		8.42	223	1.07	
Total		277.45	28,047	32.28	

Projection For **1978-79** — At a Glance

OIL SEEDS

(Area in Lakh hectares and Production in lakh M. tonnes)

Sl.	Crop	Achievement in		Achievement in		Programmed for	
No.		1976-77		1977-78 (anticipated)		1978-79	
		Area	Production	Area	Production	Area	Production
1.	Groundnut	9.25	8.28	11.00	12.93	11.20	13.50
2.	Gingelly	1.06	0.33	1.30	0.50	1.40	0.65
3.	Castor	0.11	0.04	0.12	0.05	0.12	0.05
4.	Sunflower	1.49	1.22	1.75	1.42	1.75	1.50
	Total	11.91	9.87	14.17	14.90	14.47	15.70

COTTON SCHEME

(Area in lakh hectares and production in lakh bales)

					Achievement in 1976-77	Anticipated Achievement in 1977-78	Programmed for 1978-79
Area	..	..	..	..	2.38	3.20	3.50
Production	..	..	..	..	3.09	3.75	4.25

SUGARCANE DEVELOPMENT

(Area in lakh hectares and Production in lakh tonnes)

					Achievement in 1976-77	Anticipated Achievement in 1977-78	Programmed for 1978-79
Area	..	..	..	..	1.35	1.44	1.45
Production	..	..	..	..	1.35	1.40	1.43

IN SAKKOTTAI SEED FARM

13

Forestry Development In Dharmapuri District Under Drought Prone Area Programme

Dharmapuri is one of the 74 Districts brought under the fold of the Drought Prone Area Programme in India and the other district in Tamil Nadu is Ramanathapuram. Dharmapuri district receives an average rain fall of 833 mm., but it is erratic and droughts are common. Continued droughts for more than a year are not uncommon. The district receives bulk of the rain during July-August. Even drinking water becomes a problem in certain years. More than 80% of the farmers are classified as marginal and small farmers having holdings less than 5 acres of land. The Government of India under the D.P.A.P. have launched several schemes in this district to improve the financial status of the poor lot of which the important are Irrigation, Afforestation, Dairy Development, Soil Conservation, Sericulture and Animal Husbandry. The District has a District Development Corporation headed by the Collector as Chairman & Managing Director. The programme for each sector are drawn up by the District Officers in consultation with the heads of Departments and processed by the Project Economist forwarded to the Government for approval by the Chairman. Thus the annual plans are sanctioned for every year.

K. K. SOMASUNDARAM, I.F.S.,
District Forest Officer.

[illegible]

Need for Massive Afforestation

Dharmapuri has got about 30% of the area covered under forests. Though this seems to be a high figure almost nearing the 33% of Forest coverage envisaged by the National Forest Policy it will be disappointing to note that part of the areas were once Ex-estates hacked by the Zamindars and Mittadars before being taken over by the Government for management. The plains forests are subjected to continued overgrazing by the village cattle and the human interference for removal of firewood, thatch grass, agricultural implements etc., with the result about 30 to 40% of the area is unproductive — only bearing thorny species or dwarf trees of no use. Hence it is a must to convert them into productive forests by growing trees of pulp wood, fire wood, industrial wood and Minor Forest produce and forming pastures in suitable lands.

Pasture Land

Massive afforestation programmes have been undertaken under D.P.A.P. to the tune of about 2,500 acres under various tree species and about 1,500 acres of pasture

lands annually. This is in addition to the regular scheme works undertaken under the Five Year Plans. The works undertaken are in tune with the recommendations of the National Commission on Agriculture and mostly are Social Forestry Schemes where they benefit the village folk directly and indirectly. The salient features of each programme under D.P.A.P. are detailed here.

Barren Land Afforestation

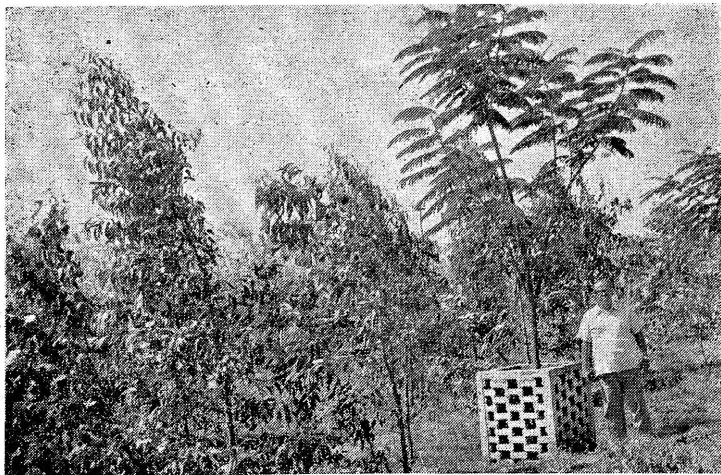
More than ten thousand hectares of land are covered by bouldary hillocks having shallow soil, subjected to heavy uncontrolled grazing, continued soil erosion and annual fires. Firewood species like Parambai, Odai (Umbrella thorn), Velvel, Achan, Vagai etc. are planted up in these hillocks during monsoon.

The average area tackled annually is about 750 hectares under D.P.A.P. It is heartening to note that the above species are doing well and have come as a boon to cover the bald hillocks of Dharmapuri district. These plantations if scientifically managed and felled after ten years would yield about 25 to 35 tonnes of Firewood in our country. Once the plantations are closed for grazing, plenty of grasses come up and the villagers are allowed to cut the grass for their cattle at nominal rates. The scheme thus aims to convert all possible barren lands under firewood plantation.

Fibre Plantation

There is large scope to plant up the fibre yielding species *Agave Sisalana* in this semi-arid district over the hillocks. *Agave Sisalana* (*Aloe*) yields leaf fibre of excellent quality which is mainly used in the Shipping Industry, Cordage and Textile Industry. *Agave* leaves also can be used for paper pulp. This species which is extensively grown in Tanzania, Brazil, Uganda and other African countries is being grown extensively in Sambalpur area of Orissa. In Karnataka there are some private *Agave* plantations. About 4,000 to 5,000 seedlings can be planted in one hectare of land. The plant is propagated by either suckers or bulbils. Finding its

Rows of Sapplings Planted.



suitability, this species was introduced in pilot scheme in Odasalpatty area of Harur Taluk during 1977 over 25 acres by bringing suckers from Mandya. The plantation is doing well. During the current year about 20,000 bulbils and suckers have been raised in nurseries. The scheme if taken up extensively would provide large employment potential to the rural folk besides saving a large foreign exchange. (India is still importing Agave Fibre for her use). One tonne of retted fibre is said to be sold at Rs. 7,000/- and an average plantation would yield about .7 to .9 tonnes per hectare per annum.

Pulpwood and Industrial wood Plantations

Most of the plains forests in Morappur and Dharmapuri Ranges bear only scrubs of no value. These scrubs are cut and burnt and planted with several species which grow well under this climate. Among the pulpwood bamboo does very well in Harur Taluk and annually about 300 hectares are planned. There is a great scope to expand the plantations in Harur taluk over about 4,000 hectares, if a massive planting scheme is drawn up. The chief bamboo planted is *Dendrocalamus strictus* (Male bamboo).



Seedlings of Various Species.

The bamboo reaches the exploitable stage in 6 years and lives for 30 years. Most of the natural bamboo from this district is allotted to the Seshasayee Paper Mills, Erode for paper pulp under seigniorage basis. Next to bamboo, Tamarind does well. Dharmapuri is famous for its pulpy and sweet Tamarind in the South Indian market. Tamarind

plantations are raised annually over about 400 hectares in this district. Achan tree which is used for fodder, fibre and poles grows well under planting conditions. Red Sanders tree also does well and is being extensively planted in Harur and Dharmapuri taluks. Odai (Kodai-vel) and Parambai also do well and planted for the firewood needs.

Raising Avenue Trees

Most of the roads in Dharmapuri district are devoid of trees. Either they were not planted originally or badly hacked by the villagers. Under D.P.A.P. during the past two years about 100 km length of avenue along State Highways and other roads have been planted mainly with Tamarind. It is pleasing to see the flowering trees like Gold Mohr, Peltorum, Rain Tree, Spathodea, etc nearer to the towns. The Dharmapuri — Papparpatty road which was totally barren two years back now blooms with Peltorum and Gold Mohr. Multiple row planting has been adopted wherever there was enough space. Well grown large sized plants are used and protected with bamboo tree guards. A special feature in this district is that all the State roads extending over about 650 km Highways and Panchayat Union roads extending over about 650 km have been brought under the fold of Tamil Nadu Forest Act. Now all cases of illicit cutting of road trees are dealt by the Forest Officials and all existing avenue trees and



Fodder

Grass

Scheme

is

Popular in

Dharmapuri

District.

newly planted ones are free from devastation.

Central Nurseries

Annually about two lakh seedlings are raised in poly pots and supplied to the public at nominal cost from the Central Nurseries. For this about ten Central nurseries have been created under the D.P.A.P. in important centres, and roadsides with a complex of well fitted with Oil Engines, Over head tanks, pipes etc. Seedlings like Tamarind, Bamboo, Eucalyptus, Teak, fruit yielding tree species like Jack, Guava, Pomegranate, Papaya, Nelli, Anona, Jaffna drum stick, Curry leaf, Singapore Silk Cotton, Jabalpur Gooseberry and a variety of ornamental and shade trees like Gold Mohr, Peltoforum, Cassias, tree, Jasmines are in great demand among the public. The supply of seedlings is something new for the Forest Department but is being greatly welcomed by the public. The planting in backyards, gardens and wastelands will go a long way in achieving the goals under Social Forestry.

Pasture and Fodder Supply

Over 10 centres in Reserved Forests and Government Poramboke lands, the Forest Department has undertaken to raise the nutritious Kolukkattai grass for the benefit of the sheep. Around the plot stone walls are constructed and Kolukkattai grass (*Cenchrus ciliaris*) sown after ploughing the area. Good water supply also is being provided inside the plots. Each such plot will provide pasturage for 1,000 Ewes and 50 rams that are being supplied to the small and marginal farmers under the D.P.A.P. scheme. As on today there are pastures that can hold about ten thousand sheep. Besides Kolukkattai the Department is also raising legume fodders like Siratro and Australian Stylos which do well in this climate. Thiru R. W. Albrecht, World Bank Adviser, D.P.A.P., Government of India who has made two visits to this Division is of high praise of the Pasture Works undertaken by the Department. Fodder grass BN2 also has been raised recently. This is also a high yielding grass. Slips were obtained from the Tamil Nadu Agricultural University, Coimbatore. Planned cultivation of this grass is extended to more areas now. It is proposed to raise Ku-Babul trees which yield very good fodder for the cattle,

BLUE GREEN ALGAE— AN ECONOMICAL MANURE FOR PADDY

The Tamil Nadu Agriculture Department has decided to introduce on a mass scale 'blue green algae' (neela pachai pasi) as an effective and economical manure to increase paddy production.

The Director of Agriculture, Thiru A. Venkataraman, I.A.S., said that research findings had established that if blue green algae, which absorbs the nitrogen from the atmosphere, was applied in the fields along with nitrogenous fertilisers, there was a significant improvement in production, while cutting down the cost to an appreciable extent.

He said that the production cost per kg of algae was some where around 32 paise a kg. and that of nitrogenous fertiliser was about Rs. 4/- a kg. The farmer would stand to benefit if he uses the blue green algae, and the department was ready to meet the requirements.

Cuddalore Centre

A centre had been set up at Cuddalore to produce algae, and the four research stations would undertake multiplication of the algae. Supplies would be made to the farmers through the State Seed Farms and agricultural depots. As much as seven tonnes of algae has been produced in one month recently at Madras for use in Chengalpattu district.

Thiru A. Venkataraman said that Tamil Nadu had achieved the highest ever fertiliser-consumption of 2.79 lakh tonnes last year. It had been planned to push it to 3 lakh tonnes in 1978-79.

Other States to follow Tamil Nadu

Tamil Nadu's spectacular results in popularising blue green algae had caught the eyes of the other States which had decided to send their farmers to Tamil Nadu in September for an 'on the spot' study of the practice.

1.51 lakh seedlings have been raised to plant during the current monsoon. D.P.A.P. in short under the Forestry Sector is yielding good results and helps the down-trodden and poor people by providing direct employment to nearly 5 lakhs annually.

AWARD OF POST—MATRIC SCHOLARSHIP TO CHILDREN OF THOSE ENGAGED IN UNCLEAN OCCUPATIONS

Persons engaged in unclean occupations like scavenging of dry latrines, tanning, flaying etc., who are not members of Scheduled Castes and Scheduled Tribes have not able to avail themselves of the benefits provided for Scheduled Castes and Scheduled Tribes. To assist their educational advancement the Government of India have introduced a Centrally Sponsored Scheme for the award of 500 post-matric scholarships throughout India from 1977-78 onwards. They have continued the Scheme for the academic year 1978-79 also. Out of this, 20 scholarships have been allocated to this State for 1978-79.

The scholarship will be given for the study of all recognised post-matriculation or post-secondary secondary courses pursued in recognised institutions. The rates of scholarship varies from Rs. 70/- p.m. to Rs. 125/- p.m. depending on the course of study. The value of the scholarships includes maintenance charges, fees and expenses on approved study tour. The scholarships are enable for pursuing studies in recognised institutions only and will cover the full course of study. The parent's/guardian's total income from all sources should not exceed Rs. 750/- p.m. The expenditure on this scholarship will be met by the Government of India. The Personal Assistant to the Director of Harijan and Tribal Welfare is the sanctioning authority for the scholarships.

For full details of the various courses of study for which this scholarship is available students who are sons or daughters of those engaged in unclean occupations like scavenging of dry latrine, tannery and flaying and who do not belong to Scheduled Castes and Scheduled Tribes Communities may contact the Personal Assistant to the Director of Harijan and Tribal Welfare, Madras-5.

AGRICULTURAL RESEARCH AND TRAINING

The Department of Agriculture is concerned with experiment which is of immediate benefit to the farmers. The experiments conducted are :

1. Those conducted in the Experiment Stations and Soil Testing Laboratories of the Department.
2. Experiments in farmers' holdings to project the findings of the experiment stations before they are released to public (Adaptive Research Trials).

Adaptive Research Programme

Thirty two cultures which proved successful as a result of the adaptive research trials conducted during the year 1977-78 were released for cultivation. During the year 1978-79, hybrids and cultures, numbering 72 which have done well in the experiment stations will be advanced for adaptive research trials in the farmers' holdings. The thirty two cultures released during 1977-78 cover 16 crops namely : Paddy, Chola, Cumbu, Ragi, Maize, Tinai, Kudiraivali, Panivaragu, Samai, Groundnut, Gingelly, Sunflower, Castor, Saff-flower, Soyabean, Cotton, Tobacco, Tapioca and Sugarcane.

Experiment Stations and Laboratories

The Experiment Stations and the Soil Testing Laboratories will engage themselves on the following activities during 1978-79, apart from the routine work of testing and evolving high yielding varieties of different crops and working out crop production techniques suitable for different agro-climatic regions for pre-release varieties

a. Water Management practices for different crops.

b. Water harvesting and dry farming practices on a sub-catchment basis.

c. Formulation of micro-nutrient mixtures for paddy, millets, cotton, etc and micronutrient fertilisation.

d. Bio-fertilisers.

e. Fertiliser saving practices as seed treatment, nursery manuring practices etc.

f. Study of the epidemiology of different pests and diseases and control of these with a view to develop an integrated pest and disease management system.

g. Development of cropping systems for saline and alkaline soils and for situations where irrigation water has high salt content.

h. Evolving suitable cropping systems for different agro-climatic zones.

i. Developing improved implements for dry farming area.

j. Low cost technology to suit the small and marginal farmers.

Training

Training of farmers is an integral component of farming operations. Modern methods of cultivation demand training of farmers not only in actual cultivation techniques but also in improving their skill in husbanding the land. The Government accord priority for training programmes.

The types of training are :

1. Farmers Training and Education Programme.

2. Training of sons of farmers and in-service training to departmental staff.

Farmers Training

Farmers education programme is conducted in the 9 Farmers Training Centres which are functioning under the Agriculture Department. Out of the above, 7 centres are functioning under centrally sponsored, one at Dharmapuri is functioning under drought prone area programme and one at Pudukkottai is functioning under state funds without staff.

It has been proposed to open New Farmers Training Centres in Salem, Ramanathapuram and the Nilgiris.

The training programmes to be conducted and farmers to be benefited are given below :

To keep abreast with the development, one has to undergo a specially tailored training ; it is more so in the case of the department staff who have to keep an open mind to receive new ideas and thoughts pertaining to farm innovation and practices and to transmit the same to the farmers. The Department staff receive in-service training at Agricultural Experiment Institute, Kudumianmalai.

<i>Types of Training</i>	<i>No. to be conducted</i>	<i>No. of persons to be trained</i>
1. Institutional Training		
(a) For convenors ..	60	1500
(b) For members of the Discussion Groups ..	210	5250
(c) Demonstration Training for Women ..	105	2625
2. Peripatetic Training cum Secondary Demonstration for convenors and members ..	1050	26250
3. Special Training programme on co-operation with the Functional Literacy, S.F.D.A. and Intensive Cattle Development Programme ..	225	5625
4. Farmers discussion groups to be formed and existing ..	3150	63000
5. Compact Block Demonstration ..	45	900
6. Scheme for Promotion of Scientific Storage on Food Grains at Domestic Level ..	50 (Villages)	..
7. Training on Agricultural Machinery and Pumpsets		
(a) Institutional Training ..	20	500
(b) Peripatetic Demonstration ..	20	400

More Rice and Millet

Food production in Tamil Nadu in 1978-79 will go up by three lakh tonnes with the adoption of a "low cost but high efficiency" technology. Rice production target has been set at 64 lakh tonnes, two lakh tonnes more than last year, millets at 20 lakh tonnes, one lakh tonnes more. The area under both these crops will, however, remain unchanged.

The Agricultural Projections for 1978-79 are as follow :

	<i>Production in lakh tonnes</i>	<i>% of the growth aimed at over last year production</i>
Paddy	64.00	3.2
Millets	20.00	5.3
Pulses	3.25	8.3
Oilseeds	15.70	6.4
Sugarcane (Gur)	14.30	2.1
Cotton (Lakh bales)	4.25	13.3

Various strategies will be followed to achieve the production goal. Of these specific mention may be made of the following which will be new areas of thrust during the current year.

Better land and water use

To demonstrate the importance of better land and water use compact block demonstrations will be laid both in dry and wet lands by every field worker involving groups of farmers. Land shaping for better water management, soil fertility

management, crop pattern and crop management to get maximum return per unit land and water per unit time, per unit input will be demonstrated in these select areas. Besides a multi purpose implement — an excellent tool for carrying out various operations like ploughing, seeding and interculture in dry and garden lands will be popularised among farmers for the first time. The Engineering Wing of the department will carry out soil and water conservation measures in watersheds.

Qualitative extension services

Specific recommendations suited to each agro climatic zone with an eye on reducing cultivation expenses without loss of production efficiency will be popularised among farmers at appropriate time to reach large number of farmers. Stress will be made on growing of super seedlings, efficient agronomy, integrated pest control, organic fertiliser, resource utilisation, etc. Various methods to reach large number of farmers will be adopted.

Quality Service and Input Supply

Activities of the various laboratories under the Department of Agriculture will be stepped up to provide timely, quality service to the farmer. Seed and Seedlings of high quality will be made available to the farmers at the appropriate seasons. Time bound programmes will be formulated by supply and distribution centres to achieve this desired goal. Quality control on seeds, fertilisers and pesticides will be enforced strictly to ensure that farmers get good quality inputs. Steps will be taken to keep the plant protection equipments in good working condition right through the year.

Farms run by the department will be managed on model lines to serve as demonstration centres. Field

days will be conducted at least 3 times in a year in each farm.

Mass contact with farmers

District seminar on agriculture will be held in the beginning of the season to explain to the farmers the District programmes and formulate plan of action to solve specific problems brought out by them. This will be followed by village meetings to explain the specific technology to be adopted for getting maximum production and profits. Every field worker will be assigned specific area of operations.

PRESIDENT'S ASSENT TO TAMIL NADU ACT

The President of India has given his assent on 21-7-1978 to the Tamil Nadu Acquisition of Land for Harijan Welfare Schemes Act, 1978. This Act providing for house-sites, pathways to burial grounds and other amenities for the benefit of Harijans is a socio-economic measure and the necessity to provide them needs no emphasis. The Tamil Nadu Government finds that the existing Land Acquisition Act (Central Act 1 of 1894) does not help achieving this object in a short period as there are a number of provisions in the Act which are time-consuming. The Tamil Nadu Government is, therefore, of the view that it is necessary to quicken the process of land acquisition by conferring powers to prescribed officers and also making provision for payment of compensation in instalments for phasing the financial commitment of the Government. This Bill seeks to achieve the above objects.

The Government are implementing certain Agricultural Schemes by obtaining refinance from Agricultural Refinance and Development Corporation, Bombay. The pattern of assistance will be that the Corporation will contribute 75 per cent of the total financial outlay of the scheme and the Government bear the remaining 25 per cent. All the schemes are implemented by the Registrar of Co-operative Societies through the Tamil Nadu Co-operative State Land Development Bank Limited.

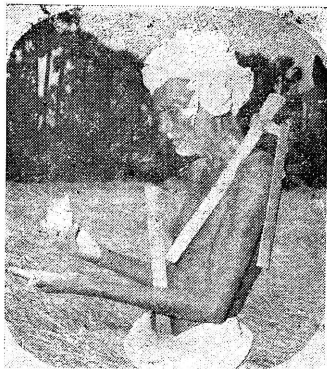
Small Farmers Development Agency

The Small Farmer's Development Agencies (SFDA) aim at improving the productivity of the small farmers, holding below 2 hectares of dry land or 1 hectare of wet land, by popularising and propagating improved agricultural practices including use of high yielding varieties, fertilisers and multiple cropping. These efforts are also supported by development of irrigation wherever possible and provision of necessary help by way of inputs and equipment on loan-cum-subsidy basis. Subsidiary occupations such as dairying are also advocated both by way of loan-cum-subsidy assistance for purchase of animals and by provision of infrastructural facilities for proper breeding, veterinary aid and marketing. These agencies are in operation in portions of all districts except Ramanathapuram, Dharmapuri and Madras. This is a Central Sector Scheme fully financed by the Government of India. The credit facilities are arranged through the Co-operative institutions and Nationalised Banks.

Tamil Nadu Agro-Industries Corporation Limited

The Tamil Nadu Agro-Industries Corporation was incorporated on the 5th July, 1966 as a joint venture of the Government of Tamil Nadu and the Government of India to promote agro industries and other ancillary enterprises in the State. The main objects of the Corporation are to promote, establish, administer, own and run industries for

(i) manufacturing articles which will help growth and modernisation of agriculture, animal husbandry, pisciculture and poultry farming, and



A second mill has also been erected at a cost for Rs. 4 lakhs to meet the heavy demand.

Fishnet Plant

The Tamil Nadu Agro Industries Corporation has a plant to manufacture fishnets from nylon and polythene with a capacity to produce 50 tonnes of nets per annum. To meet the demand for thinner code for nylon nets, it is proposed to import one more machine at a cost of about Rs. 9.5 lakhs.

State Farms Corporation

The Tamil Nadu State Farms Corporation Limited was established with the main objective of bringing under cultivation waste lands in the State. Another social purpose subsequently linked to the project of the Corporation is rehabilitation of the repatriates from Sri Lanka.

The Corporation has taken up cultivation in a number of locations such as Musaravakkam, Neyveli I, II, III, Rubanarayanallur, Thiagarajapuram-Sakkaramangalam, Vella-laviduthi and Thirapidingi. The area cultivated in 1976-77 is 958 hectares and revenue realised therefrom is Rs. 30.43 lakhs. During the year 1977-78, there has been a set back in the programme of energisation of the tube-wells due to heavy rains and cyclone. Consequently the Corporation will be able to achieve a coverage of crops in an extent of about 1,800 hectares realising Rs. 121 lakhs only as against the Corporation's original programme to cultivate 3,230 hectares with an anticipated yield valued at Rs. 192.75 lakhs.

SERVICES OF CORPORATIONS FOR FARMING COMMUNITY

(ii) processing agricultural produce and products of pisciculture and animal origin for the purpose of increasing the availability of food and subsidiary food in the country and for export.

Pesticides Project

The Corporation has been formulating popular pesticides, important among them being BHC 10 per cent E.C. in private formulators' units. The Tamil Nadu Agro Industries Corporation has a plant of its own established at Ambattur at a capital cost of Rs. 9.79 lakhs.

PRESIDENT'S PRAISE FOR TAMIL NADU

The President, Thiru N. Sanjiva Reddi, said at Nagarjuna-sagar that good work was being done in Andhra Pradesh, Tamil Nadu and West Bengal. Addressing the function at which he dedicated a power unit to Andhra Pradesh and the nation, he said he did not even remember which parties were in power in these States. He, however, acknowledged the good work done by them.

—The Hindu dt. 11-7-'78.

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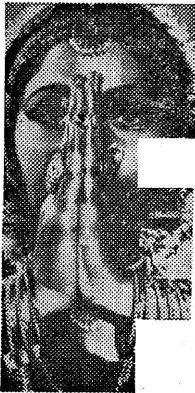


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SURULIAR HYDRO-ELECTRIC POWER STATION

K. CHOKKALINGAM, I.A.S.,

Chairman, Tamil Nadu Electricity Board.

Introduction

Suruliar Hydro-Electric Power Station in Madurai district is the eighteenth hydro-electric power station in the Tamil Nadu Electricity Board. Suruliar is a tributary to the Vaigai river and has its origin in the hill ranges called locally as Pachikumachi hills, which separates the Cumbum Valley from the Periyar catchment. The scheme envisages harnessing the yield from the various sub basins, with a total catchment area of 38.85 sq. km. and with an average inflow of 71.46 million cubic metres by building storage dams/weirs across various streams and diverting them successively into the forebay dam. From the forebay dam water is taken through the power tunnel and thence through penstock to generate 114 m.u. of energy every year.

The scheme was sanctioned by the Planning Commission in May, 1973. As per the latest estimation the scheme is estimated to cost Rs. 25.06 crores.

Description of Project

The direct inflow from the catchment area of the Highwavys together with the pumped flow from the Highwavys diversion weir will be led into the reservoir formed by the Manalar dam through an inter-connecting tunnel of 1,406 m. length. This tunnel will be partially lined with R.C.C.

The waters at Manalar dam will be led through another inter-connecting tunnel of 2928 m. long to the reservoir formed by Vennir Aru Dam. The small storage of Vennirar weir will also be led into the Vennirar dam through a baby tunnel. All the aforementioned flows are intercepted at the Vennirar Dam and carried through in another inter-connecting tunnel of 2015 m. length and through a small length of open channel to the Eravangalar Forebay Dam.

From the Eravangalar Forebay Dam a lined power tunnel of 803 m. length carried the water to the 30 m. deep surge-shaft and from there to the Butterfly Valve House through a 30 m. length steel lined tunnel. From the valve house, the penstock of 2904 m. length with internal diameter varying from 1.5 to 1.0 m carries the water to the power station. The penstock pipe is fabricated of steel plates conforming to ASTM 285 grade C for the upper reaches and high tensile steel of "Aldur 58" in the lower reaches.

This penstock, with 23 anchors and 168 saddle pier supports, is the longest line ever constructed by this Board. The maximum head involved for the power generation is 1028 m. (which is believed to be the highest head in Asia) with a peak discharge of 4.31 cumecs.

Civil Works

One of the special features of this project is the comparatively large volume of civil works involved. Three masonry dams and two weirs (small dams) have been constructed to store and divert the water for ultimate power generation. The Highway's dam in the upper most reach of the project is located amongst a picturesque scene surrounded by forests and tea gardens. The dam is part masonry and the rest is earthen dam.

A pumphouse located downstream side of the Highwavys diversion weir would pump surplus water from the highway's stream back into the Highwavys dam with the help of two giant sized pumps of 525 HP capacity each for further use for power generation. Thus the entire precipitation in the upper reaches is used for power generation. The Manalar, Vennirar and Eravangalar dams are purely of masonry construction. To interconnect the reservoirs tunnels for a total length of 7454 m. have been mined in the rocky mountains and these tunnels have been lined with concrete whenever necessary.

Power Plant

The power house located at an elevation of 440 m. near Vannathiparai, will be installed with a single 35 MW generating unit with horizontal shaft pelton turbine. The entire generating plant and equipment including the indoor switchgear have been supplied by M/s. Elin-Union Austria under the Austrian Suppliers Credit.

The turbine supplied by M/s. Voith Austria, is of horizontal shaft impulse unit with one runner in an overhung arrangement directly coupled with the generator shaft and two jets acting on the runner. The turbine has a capacity of 50,000 HP designed for a net head of 979 m. and a water discharge of 4.31 cumecs. The runner is of 13.4 stainless steel.

On the upstream side of the turbine a spherical valve with an internal diameters of 700 mm will be installed in the power station. This is in addition to the butterfly valve located at the valve house. Both the valves and their controls have been supplied by M/s. Voith Austria.

The generator to be coupled to the turbine will be 38.9 MVA capacity with a rated voltage of 11 KV. The generator windings are of class 'B' insulation fully wound at the factory. The heaviest package for transport consisting of generator-rotor body without the shaft and poles, weighed 32 tonnes. The generator is provided with carbon-di-oxide fire protection. The exciters are of conventional type comprising the main

and pilot exciters while the automatic voltage regulator is of motor-operated rheostat type. All the generating equipment have been supplied by M/s. Elin-Union, Austria. The unit is designed for operation as synchronous condenser also.

The indoor-switchgear comprises the relay and control Boards were supplied by M/s. Elin-Union, Austria. An auto-control system provided for the first time by the Tamil Nadu Electricity Board in this power station by which the generating unit can be either started as a turbine or synchronous condenser by simply selecting the 'model' is the Auto Control System. Any fault occurring during these operations will be clearly indicated in a luminous window, enabling easy and quick rectification.

The generated voltage at 11 KV is stepped up to 11 KV through 3 X 13 MVA single phase

transformers located in the outdoor yard. The generator terminals and the transformers are connected through 'C' shape bare aluminium bus-bar enclosed in a bus duct. The power station is connected to the rest of the grid through a 110 KV link, by tapping the nearby Periyar-Kayathar 110 KV DC line.

Conclusion

With the commissioning of the Suruliar Hydro Electric Power Station the installed capacity of the Tamil Nadu Grid would be enhanced by another 35 MW to 2459 MW. The power station apart from helping the Tamil Nadu Grid to give relief during the peak hour period, would be of immense use during the summer period when the unit could be run as synchronous condenser and thus improve the voltage conditions in and around Madurai.

REVENUE FROM COMMERCIAL TAXES DEPARTMENT AUGMENTED

After the present Government took over, various measures have been initiated to improve the collections of Commercial Taxes, and to reduce harassment and eliminate corruption. As a first step towards this direction, Government have set up an Expert Committee with a retired I.C.S. officer and former Member, Board of Revenue, as Chairman. The other members of the Committee are : Member, Board of Revenue and Commissioner, Commercial Taxes, Director of Vigilance and Anti-Corruption, an M.L.C., and President, Tiruchirappalli District Chamber of Commerce, Tiruchirappalli. This Committee will comprehensively examine the procedures in regard to assessment, collection and appeal in the matter of Sales Tax Laws and regulations. The object of this Committee will be to suggest changes which will subserve the triple objectives of reducing hardship to the assessee, improving collection and eliminating corruption. The Committee is expected to submit its report before the end of 1978.

Summary Assessment

Another step taken by the Government to help the small traders is the introduction of 'Summary Assessment' procedure. Under this system dealers with turnover not exceeding Rs. one lakh have been enabled to get their accounts virtually accepted by the assessing authorities subject to certain conditions being satisfied. These conditions are: (1) the assessee should

be dealing in multi-point goods exclusively, (2) the turnover returned by him should be commensurate with the trend of trade and (3) inspection of the business premises should not have disclosed serious irregularities.

Levy of Compounding Tax

The trade had been complaining for a long time about the tendency of inspecting officers of the Commercial Taxes Dept. to levy compounding fees on the spot without giving proper opportunity to dealers to explain their case. Instructions have now been issued by the Board that there should be no on-the-spot compounding and that the Inspecting Officer should report to the Commercial Tax Officer who will fix the quantum of the Compounding Fee taking into account the nature of the irregularity detected.

Fixed Levy on Entertainment Tax

The Government have introduced with effect from 26-12-1977 the system of payment of a fixed tax per show in respect of theatres in Panchayat villages, Panchayat towns and Municipalities-third grade and second grade. The scheme provides for payment of tax at a fixed percentage of the gross collection capacity of the theatres per show (ranging between 20% to 27.5%) for the actual number of shows conducted in a week. The act also provides for option to pay tax at a lower percentage of the gross collection

capacity (ranging between 15% to 22.5%) for a fixed number of shows per week.

The present scheme of compounding has certain distinctive features over the earlier one which was in vogue for a short period from September 74 to July 1975. Under the old scheme, even though the rates of tax on gross collection capacity ranged between 10 to 20 per cent the theatre owners opting to compound the tax dues should pay either the percentage of gross collection capacity or the average amount of all taxes payable per show during a given period *whichever was higher*. The previous scheme was withdrawn from 21-7-75 as the scheme had not proved as popular as was anticipated. The trend of collection was also found to be not encouraging. Besides, there were certain administrative difficulties in enforcing the composition scheme.

The new scheme covers about 1,000 theatres in all out of the total 1,500 theatres in the State. It is significant to note that almost all the theatres have come forward to opt for the scheme of compounding. The Amendment Act provides for stringent punishment to tax evaders. An offence of fraudulent evasion of tax is now liable to be punished with imprisonment which may extend to one year and with fine. The new scheme has proved to be an effective step taken by the Government to arrest evasion of tax by the theatre-owners and to eliminate corruption of the tax officials.

SOME FACTS ON PROGRESS OF CO-OPERATIVE MOVEMENT IN TAMIL NADU

Cooperatives in Tamil Nadu had made good progress during the year 1977-78 ending with March. Out of 45.63 lakhs agricultural families 38.72 lakhs families had been brought under the co-operative umbrella. It is worthy of note that 22.83 lakh families belong to weaker sections. The agricultural loans including medium term loans disbursed by village co-operatives increased from Rs. 125 crores to Rs. 127 crores during the year. It is hoped that co-operatives would achieve the target of Rs. 145 crores fixed for the year 1978-79. The long-term loans issued by land development banks amounted to Rs. 12.28 crores during 1977-78. The target for 1978-79 is Rs. 19 crores.

Jewel Loans

887 cooperatives and 331 branches of central banks and State Co-operative Bank in the State were engaged in the issue of jewel loans to weaker section of the community, the total amount of loans issued by them during 1977-78 being Rs. 50.77 crores. During 1978-79 they have targeted to issue Rs. 70 crores as jewel loans.

In the matter of supply of agricultural inputs and sale of agri-

cultural produce co-operatives had done their best. The value of chemical manure supplied was Rs. 56.34 crores. The sale of agricultural produce during the year amounted to Rs. 53.44 crores.

Common Kitchen for Students

Much head way had been made in the distribution of consumer articles, controlled cloth, supply of text books and stationery articles to students, opening of common kitchen for college students, the organisation and working of LAMPs for hill tribes, labour contract societies, societies organised for providing employment to members as Auto-rickshaw drivers co-operatives, barber co-operatives, washermen co-operatives etc.

Deposits in Central Banks

The total deposits of the 16 Central Co-operative Banks in Tamil Nadu showed an increase of Rs. 406.85 lakhs than in April '78 and stood at Rs. 12,737.17 lakhs on the last Friday of May '78 (26.5.78).

The consolidated review just published by the Tamil Nadu State Co-operative Bank also shows the comparative position in the matter of deposit mobilisation of individual banks. According to it, Coimba-

tore, Salem, Madras and Madurai banks ranked foremost among all the Central Co-operative Banks. Their total deposit resources amounted to Rs. 6,490.44 lakhs which was over 50% of the deposits of all the banks in the State. The deposit base of these banks as revealed in the review showed their sound financial position. The deposits formed over 36% of their working capital and 72% of internal resources.

The borrowing of Co-operative Central Banks stood at Rs. 17,705.58 lakhs on 26-5-78 — a decline of Rs. 32.01 lakhs than in April '78. The borrowings from the Apex Co-operative Bank formed the main source of the loan resources (99.53%). The borrowings from the State Bank of India, Government and others occupied only a small proportion.

The amount of loans advanced by these banks, which are the main financial agencies of the co-operative movement in the districts, amounted to Rs. 31,553.53 lakhs of which agricultural loans formed about 68% viz., Rs. 21,472.33. The balance about 32% of the loans viz., 10,081.30 lakhs represented loans to weavers co-operatives and others.

ANNUAL STATE AWARD FOR BEST TAMIL FILMS

In order to encourage production of Tamil films of high aesthetic and technical standards and of educational or cultural values, the Government of Tamil Nadu have decided to institute a revised scheme of annual State Awards for the best Tamil feature films, Children's film, Documentary films, best actors, etc. The award will be as follows:

- (a) A prize of Rs. 50,000 in cash and a gold medal for the first best Tamil feature film ;
- (b) A prize of Rs. 30,000 in cash and a silver medal for the second best Tamil feature film ;
- (c) A prize of Rs. 20,000 in cash and a silver medal for the third best Tamil feature film ;
- (d) A special prize of Rs. 25,000 and a silver medal for a film of special merit with mass appeal, wholesome entertainment and aesthetic value.

- (e) A prize of Rs. 5,000 worth of gold medal for each of the best actor, best actress, best director, best story writer, best dialogue writer, best music director, best cameraman, best male playback singer, best female playback singer, and best lyricist ;
- (f) A special prize of Rs. 5,000 worth of gold medal for exceptionally good performance by one actor ;
- (g) A special prize of Rs. 5,000 worth of gold medal for exceptionally good performance by one actress ;
- (h) A prize of Rs. 25,000 in cash and a silver medal for the best Children's Tamil Film.
- (i) A prize of Rs. 5,000 in cash and a silver medal for the best Tamil Documentary film ;
- (j) " Raja Sandow Memorial Prize " of Rs. 25,000 in

cash and a gold medal for a Producer, Director, Artiste or Technician of eminence who has made substantial contribution to the growth of Film Industry in Tamil Nadu.

A Selection Committee appointed by the Government will examine the films entered for awards and recommend the names of films, Director, Story Writer, Artistes (Actors and Actresses), etc.

All full length Tamil feature films (excepting dubbed versions, remakes, and adaptations) and certified for public exhibition by the Central Board of Film Censors during the preceding financial year and produced in India or by Indian Producer are eligible for the awards.

Entry for awards will be invited by notifications. Application with Rs. 100/- of entry fee will be received till August 14th for 1977-78 Awards.

15th AUGUST

Day of Rejoicing—Day of Rededication to Values and Ideals.

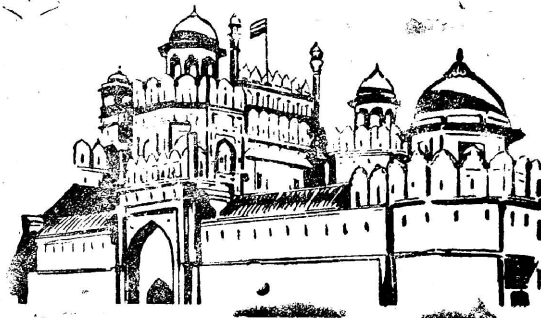
On this Day We recall:

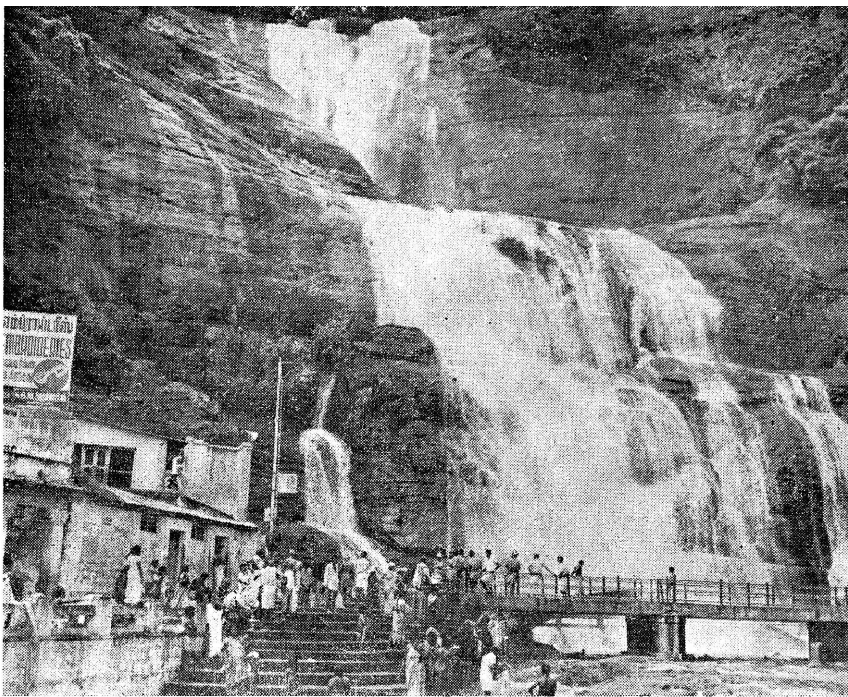
- The historic struggle for freedom under Mahatma Gandhi's leadership;
- The sacrifices and sufferings of millions of our countrymen;
- The consolidation of freedom, integration of the country and laying of the foundations of economic development.

Today We resolve:

- To banish unemployment, sickness and illiteracy from our midst;
- To provide our people in the 5,76,000 villages with the minimum needs of drinking water, health, education and roads;
- To take the weaker sections of society along the path of socio-economic development as equal partners

On this 31st anniversary of Freedom let us resolve to build the India of Gandhiji's dreams. Let us strive to wipe every tear from every eye.





Courtallam Falls - Gift of Nature

Waterfalls are the gifts of Nature. These gifts vary in form, use and benediction to human race. Some are virgin, far away from human approach and shredded in natural flamboyance of wilderness. Some are approachable, but wild. The Niagara Falls in the U.S.A. and the Victoria Falls, discovered by David Livingstone, in Central Africa and the Sivasamudra Falls in Karnataka in our country are no doubt the-much-frequented water Falls of splendid scenic beauty, attracting stream of tourists and travellers, indigenous and foreign.

The Courtallam water falls in Tamil Nadu are not only tourist centre of unique scenic beauty and perennial source of irrigation water supply but also a health resort, with varied bowers of medicinal herbs and creepers and verdant forests of fantastic hue and colour. Courtallam is really a **common man's Health Resort**.

Courtallam, 65 km from Tirunelveli and 5 km from Tenkasi is eulogised in Tamil literature and religion. The Western Ghat rises from the Western Aryankav Pass upto the height of 5000 feet from the five falls and the ghats protrude into the Pothigai Hills. The Courtallam hills have three peaks. Eight falls originate from the Chittaru descending through cliffs of the hills. The names of falls are : Honey Falls, Sembaga Falls, Main Falls, Small Falls, Five Falls, Tiger Falls, Old Courtallam Falls and Fruit Farm Falls. Main Falls, Five Falls and Old Courtallam Falls are important Falls attracting huge crowds.

Crystal Water

Dr. Caldwell says "The waters of the Courtallam Falls are the purest, carrying herbal minerals". A Medical Expert Committee appointed by the East India Company has spoken of the medicinal value of the water falls. The waters run through dense forests with plants and herbs. The agromatic conditions feed a wide variety of plants, herbs, orchids and trees. The force of running water makes the herbs and plants to emit the therapeutic substances from stalks, flowers, pods, stems, trunks and leaves. The cold water of the Falls thrash down on the granite rocks. The travellers and the visitors put their heads straight. They feel no pang of the forceful water ; no chillness. Water is invigorating. Bathers are enthused. Bathing is a pleasure. No fear of 'Cold-catching' one. The scenery above the bathing place is a pleasant sight and bracing. On the otherhand, the physical system is whipped up; one gets good appetite and freshness is felt all over the body. Gingly oil is sold in large quantity during the season. Bathers apply oil all over the body. No soap or soap-nut is needed to wash away the oily substance. The 'Oil-Bath' is a must when one visits Courtallam.

The Honey Falls can be reached by walk and it is 5-km from the town. The waters fall from a height of 100 ft. The water is sheet-like, cool, steady in flow. This is the reason to name it as Honey Falls. Down below the Honey Falls is Shembaga Falls. The water of Honey Falls rush to a distance of one km and fall from

30 ft. height. The Shenbaga trees are seen in large number in this sector.

The Courtallam Falls or Main Falls add a new dimension to this health resort. This is a perennial falls, with water in dribbling even during the worst drought period. Over-looking the temple at the entrance to the bathing ghats, the Main Falls is a Paradise during the season which commences in the second half of July and lasts till the end of August.

The waters in all the falls are pure, cool. Bathing for an hour, one feels not weary. Even the old forgets his age when his head gets the slaps of the water falls. Spots in bathing ghats are separate for men and women to regulate the over-enthusiastic bathers. The Courtallam Township has built rooms near all the Falls for changing the clothes. Courtallam hand-loom towels, mostly red in colour, woven in this area are available in plenty at low price for using as bathing towels.

The Five Falls has a bewitching scenic beauty. About 4 km that from Courtallam, the Five Falls, bedded in sturdy black rock and over-hanging boulders, with ever-green creepers and plants is a quiet and calm place for women and children. Day and night people bathe in the Five Falls. Both sides of the 4-km road to Five Falls are dotted with tall, towering trees—coconut, areca-nut mango, Jack and a wild variety of forest trees and plants. The Ramakrishna Ashram on the eastern side of the road has a horticultural garden,

The bordering village Ilanji, encircled by paddy and plantains fields is a village of repute.

During the season, tourists visit Courtallam from different parts of the country. There is a steady stream of visitors from Kerala, Karnataka and Andhra Pradesh. They are fully aware of the health-promoting climate, cool breeze, and above all the drizzles. People enjoy the intermittent drizzles.

Traditional handicrafts aglore Courtallam. The wooden toys and pottery of Shencottai, the bamboo products and handloom goods of Tenkasi, Vadakarai and Kadayannallur—all not far away from Courtallam and the palm-leaf baskets, Pattamadai mats in dazzling colours and designs are the souvenirs that one can hardly miss to carry with him.

Accommodation is no problem. The rest houses and dormitory of the Township Committee and private organisations as well are able to meet the demands of the tourists, suited to their paying capacity. To augment the accommodation, the Department of Tourism has proposed to construct a Tourist Bungalow. Action is also afoot to provide accommodation throughout the year for all income groups.

The Courtallam Township Committee under the Chairmanship of the District Collector, Thiru R. Shanmugham, I.A.S., has on hand various proposals to improve the manning of the township and to beautify various spots in Courtallam so as to acquire its legitimate place of pride in the tourist map of India.

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Technology of Pulse Milling - Their Nutritive Value and Utilisation

Pulses refer to the edible seeds of leguminous plants belonging to the leguminosac family. They have been cultivated since very ancient times. Kidney beans have been found in Mexico in caves which have been dated to 4,000 B.C. Peas of similar age have been discovered in Predynastic Egyptian Tombs. Redgram and black gram have been referred to in our Vedas which are in existence since time immemorial. The legume pod itself is the first coat corresponding to the pericarp of the cereal grains. The pods have different shapes and there are wide variations in good size, shape, density and seed coat colour. Since the seed is attached to the pod at only one point, it can easily be removed. Legumes have no endosperm and it is the cotyledons that contain stored nutrients. The seed coat is either firmly or loosely attached to the cotyledons. In the present article, the milling aspects of pulses followed by their nutritive value and utilisation, are discussed.

Pulse Milling Technology

In India pulses are mainly consumed in the form of dehusked split grain which is called 'dhal.' If the outer coat is firmly attached to the seed, it is generally referred to as a skin than as a husk or hull. The removal of this seed coat is technically termed as decortication. Pulse milling usually refers to the decortication and subsequent splitting of the pulse into dhal. Pulse milling, in addition to being practised as a cottage scale industry, is one of the major food processing industries in India. There are about 10,000 commercial mills of 1.50 tons per day capacity. Traditional age old methods are still continued to be practised without much technical modification. There are principally two methods, viz., wet and dry methods.

Wet Method

The wet method consists of steeping the grains in water for about four hours, mixing with red earth and then sun drying for 2-4

days. After removing the red earth by sieving, subsequent milling in mortars or chakkis dehushes and splits the grains. In this method, the main objective is to soften the husk prior to its removal. The husk takes up more water than the rest of the grains whereby it becomes easily separable.

Dry Method

With the dry method the pulse is initially cleaned, graded according to size (in sieves) and then passed through an emery-coated roller for initial pitting or scratching the husk to facilitate subsequent oil penetration. Fitted grains are thoroughly mixed with about 1% oil (linseed) in a worm mixer. The oiled grains are then spread in thin layers for sun drying in drying yards for 2-5 days. Grains are heaped during night to preserve the heat. At the end of the drying period, the grains are sprayed with 2-5% water, thoroughly mixed, and heaped over night. The grains are subsequently passed through the roller or **chakki**. About 40-50% of the grains are dehusked and a major portion of these are split simultaneously. The dehushing is done by abrasion. Husks are aspirated off and the mixture of grains and dhal is sieved to remove dhal. Residual unhusked and husked whole grains are further dried in sun for one day, mixed again with water and the process is repeated. The principle of this method is that addition of heat renders the husk to become brittle, and to subsequently crack thus making husk removal easier.

Wet Method —Advantages

The advantages of the wet methods are : 15-20% higher dhal

yield, better taste, easy husk removal due to pre-soaking, traditional shellers are more suitable for wet processed grains, and it is a more advantageous method of splitting. The disadvantages in this method are : The dhal takes longer cooking time, creates a small depression in the centre of the dhal. It is laborious and is dependant on climatic conditions, and causes losses of grains from birds and insects during outdoor drying. The entire process usually takes 5-7 days and mills can only process limited amounts.

Dry Method—Advantages

The advantages of the dry method are : the dhal cooks quicker and the cotyledons soften easily, it is a more advantageous method of dehushing, and larger quantities of dhal can be prepared. The disadvantages in this method are : high milling loss due to breakage and powdering. Since removal of the husk is usually completed after several passes through the rollers, large losses of product occur by scouring of the endosperm in each pass. The dhal costs more because of higher percentage of broken and the method requires longer time due to repeated drying and milling steps.

Research efforts have been recently focussed on the development of improved techniques. A modern technology, for pulse milling has been developed at CFTRI, Mysore. It has been reported that the improved method can increase the average yield of dhal by 10-15% over the conventional processes. Thus the legume availability could be increased by 1-2 million tons equivalent to 300,000 tons of protein!

In the CFTRI process an important pretreatment called conditioning step has been introduced. This is based upon the principle of removing water from the husk, to facilitate its removal. Moisture is uniformly adjusted to a critical point by exposing the grain to the heated air (approximate 300 deg. C) for several minutes, thereby loosening

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ing the husk and making it friable or brittle. The second step involves the use of pulse-dehusking machines that removes the husks by abrasive (pearling) action in stone coated rollers. Abrasion pressure, feed and clearance can be adjusted to suit different varieties of grain legumes. After a single pass in properly conditioned grains an almost complete removal of the husk (99.5%) can be achieved with the least scouring of the peripheral layers of the kernel. Dehusked whole pulse can be subsequently split into dhal in a separate controlled system. An increased yield of 10-15% over traditional commercial methods has been reported in this process. Apart from this, the processing time has been very much reduced, the cost of processing is less, the method is independent of climatic conditions and attendant out-door losses.

NUTRITIVE VALUE OF PULSES

Pulses provide a significantly large part of proteins for most of the people of our country. The pulses are rich in proteins and they form an important protein source. In order to achieve optimum nutritional complementarity, cereals and legumes need to be eaten in an approximate ratio of 65 cereals to 35 of legumes. In India, the ratio is closer to 90 cereals to 10 legumes. Virtually all cereal proteins are deficient in the essential amino acid lysine. The nutritional value of a cereal diet can therefore be very much improved by the addition of a food that is rich in lysine. Food legumes are comparatively rich in lysine and therefore a combination of cereal protein and legume protein comes very close to providing an ideal source of dietary proteins for human beings. However the pulses have comparatively low levels of sulphur amino acids, viz. Methionine and cystine, and this in large part off set by the higher proportions of these amino acids present in most cereals. Thus cereals and legumes supplement each other in increasing the nutritive value of the combined proteins. WHO has recommended a lysine content of 340 mg/g of nitrogen.

Pulses also contain various anti-nutritional or toxic factors. Such factors include trypsin inhibitors, haemagglutinins, goiterogenic agents, cyanogenic glucosides, alkaloids and saponins. These interfere in the normal metabolic functions in the

body and so they have to be either eliminated or inactivated by proper processing before consumption. Further, efficient removal of the seed coats and husks surrounding the edible cotyledons improves the digestibility and provides for increased body utilization of the legume nutrients.

Pluse cooking techniques and utilisation

Boiling : Cooking whole legumes husked or dehusked in boiling water is the most common method of legumes food preparation. In South India, pulses are often cooked until soft, mashed then mixed with water and reboiled with spices, salt, vegetables etc. to give a consistency viz. sambar, rasam etc. In North India, the booked dhals are garnished with salt and then eaten along with chappathis. During boiling, the insoluble ca/Mg pectate present in the cell walls are converted to Na/K pectate rendering the softening process. Pressure cooking has been shown to considerably reduce the cooking time (60 minutes vs 3-5 minutes). Although cooking improves the nutritional properties and palatability, excessive cooking will lead to a lowering of digestibility due to inactivation or destruction of certain amino acids. So an optimum cooking time should be followed.

Roasting : This is also termed toasting or porching. In this method whole or husked dhals are exposed to dry heat either in a frying pan or in hot sand. Bengal gram, green gram etc. are commonly roasted and then eaten as such or after powdering and mixing with jaggery, flavouring etc. Roasting improves the flavour, texture and nutritive values of the grain.

Puffing : Puffed grain legumes are commercially prepared in India. For puffing, the grains are soaked in water and then mixed with sand which has been heated to 250°C. The grains are toasted in the hot sand for approximately 15-25 seconds. After the sand is sieved off, the grains are dehusked between rollers.

Germination : This allows the whole grain to be eaten in a palatable form. The sprout is allowed to grow approx 5-15 mm traditionally in Indian homes. Sprouted grains are eaten

raw, with salt or further seasoned and fried or boiled. Mainly mung beans, bengal gram and peas are popularly used. Germination does not reduce cooking time or texture. However due to chemical changes (enzymatic) the nutrients become more assimilable for human nutrition. Total sugars increase, starch quantity decreases, proteins break-down to simpler units, essential amino acids increase and various vitamins like viz. C, thiamine, riboflavin, niacin, pyridoxine, biotin, tocopherol etc. and available iron have all been reported to increase.

Frying : in oil mainly used on previously processed grains. The soaked pulses are ground into batter and then deep fat fried e.g. vadai. In India bengal gram, black gram and peas are often prepared into paste which are then deep fat fried into crispy products.

Fermentation : is probably one of the oldest methods of processing legumes. This is mainly practiced in India and all the Far Eastern Eastern Countries for centuries. The soaked grains are ground into batter and then allowed to ferment. Usually a mixture of legumes and rice is used. During fermentation, due to the production of carbondioxide, the leavening or softening takes place, lactic acid is produced which gives a delicious taste. The batter has to be steamed or pan fried before consumption. Common foodpreparations are idli and dosai which employ fermentation. During the process the digestibility of the protein is increased. Similarly the content of water soluble vitamins also increase.

Miscellaneous Aspects

Modern commercial processes have been developed in western countries for the manufacture of quick cooking pulses, legume powder, legume protein concentrates etc. Husks have been used in our country in the animal feed. Research work has shown that pulses and their powders can be successfully used for the manufacture of protein rich foods like Bal Ahar (70% cereal flour and 30% legume flours), soft drinks, milky beverages, soups, baked goods etc. Soyabean technology is far advanced in the production of soy milk, textured vegetable proteins (vegetable meat), etc.

House of Kamaraj dedicated as Memorial

The Government of Tamil Nadu have purchased the house of Thiru K. Kamaraj at No. 8, Tirumalai Pillai Road, T. Nagar, Madras, where he lived for over a quarter of a century. His personal belongings and other articles he used have been kept on display for public view in the available rooms as exhibits which would inspire the younger generation and help them to imbibe the noble ideals of the departed leader.

His house was dedicated on the 15th July as a Memorial at a colourful function organised in Tirumalai Pillai Road as part of Kamaraj's 76th birthday celebrations. The Chief Minister, Thiru M. G. Ramachandran, who dedicated the house as a Memorial, recollected his only two visits to the house of Thiru Kamaraj and he explained how Thiru Kamaraj transcended all petty political differences and showed high sense of magnanimity. Thiru Kamaraj, as an able administrator, had never allowed his decisions fogged down by rules and regulations. The Chief Minister said he had occasions to go through some of the files containing the decisions of Thiru Kamaraj. Services to the people and welfare of the country were his guiding principles. Thiru Kamaraj was a symbol of service and dedication. The Government of Tamil Nadu would continue to follow his noble principle of serving

the meek and the needy, unmindful of the roadblocks of man-made rules and procedures, he added

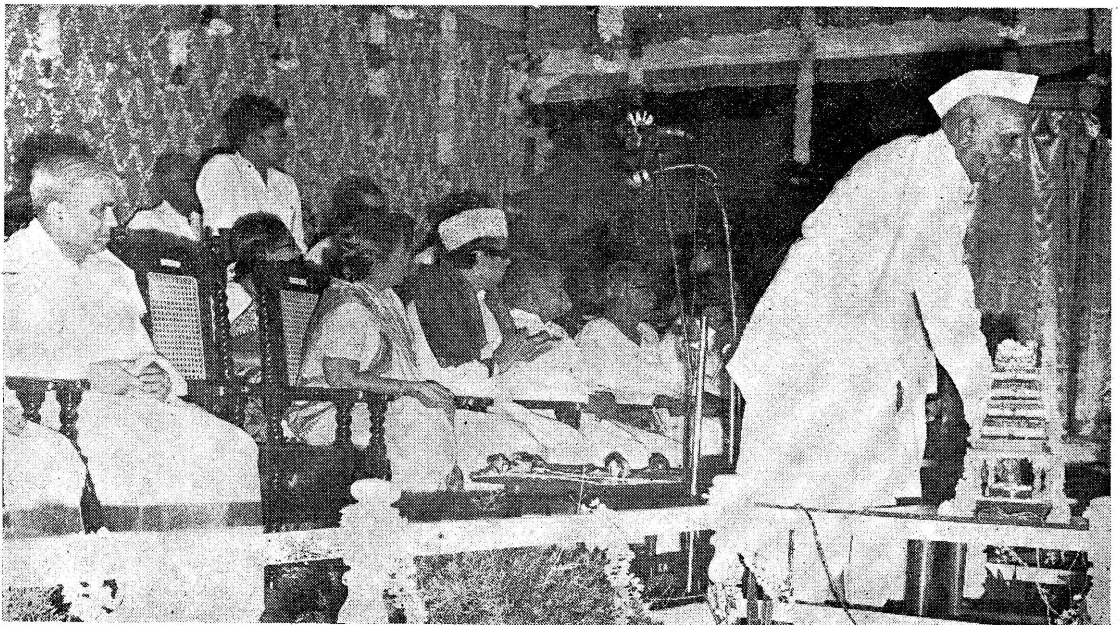
Thiru Prabhudas Patwari, Governor of Tamil Nadu, who unveiled a big Portrait of Thiru K. Kamaraj, paid a glowing tribute to Thiru Kamaraj. He recollected his association with Thiru Kamaraj as President of the Indian National Congress. Thiru Kamaraj set high standards in public life. Thirumathi Jothi Venkatachellum, Governor of Kerala, in her presidential address, said that she was a pupil in "the political nursery of Rajaji and Kamaraj". Though Thiru Kamaraj was not privileged to obtain formal academic qualification, it was Kamaraj who opened a large number of educational institutions particularly elementary schools, for the benefit of the poor.

Thiru P. Ramachandran, Union Minister for Power, congratulated the State Government for converting Kamaraj's house as a Memorial. With nostalgic feeling he paid homage to Kamaraj. Leaders of various political parties who addressed the meeting included M/s. M. Bakthavatsalam, former Chief Minister, M. P. Sivagnanam, Chairman, Legislative Council, V. R. Nedunchezian (AIADMK), G. Karupiah Moopanar (Cong. I), P. Ramamurthi, M. P. (C P M),

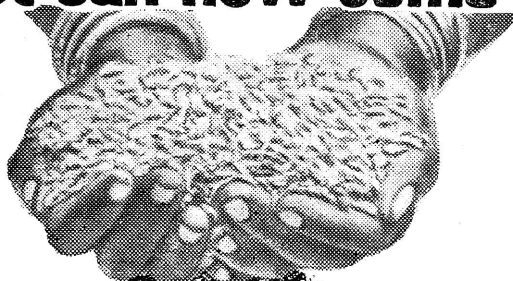
P. Manickam, M. L. C., (CPI), Abdul Wahab (Muslim League), P. U. Shanmugam, M.L.A., former Minister and Thiruvurur Thangaraj, (D.K.) The speakers congratulated the State Government for acquiring the house and dedicating it to the nation.

Thiru R. M. Veerappan, Minister for Information and Religious Endowments, who welcomed earlier, made a dig at critics who said that the Government did not celebrate the birthday of Kamaraj last year. The house of Thiru Kamaraj has been dedicated as Memorial not to gain political publicity but to discharge Government's bounden duty to honour a leader who spearheaded the national struggle in this part of the country, carried the torch of knowledge even in the far-flung villages and who served till his last breath for the cause of the down-trodden.

After the meeting, the speakers and invitees were taken round the various rooms where an exhibition had been arranged. The exhibition was organised elegantly by Thiru N. Krishnamurthy, I.A.S., Director of Information and Public Relations and Thiru C. N. Krishna Bharathi, Deputy Director. A steady stream of visitors, young and old, men and women, the urban elite and the unsophisticated from distant villages visit the Memorial.



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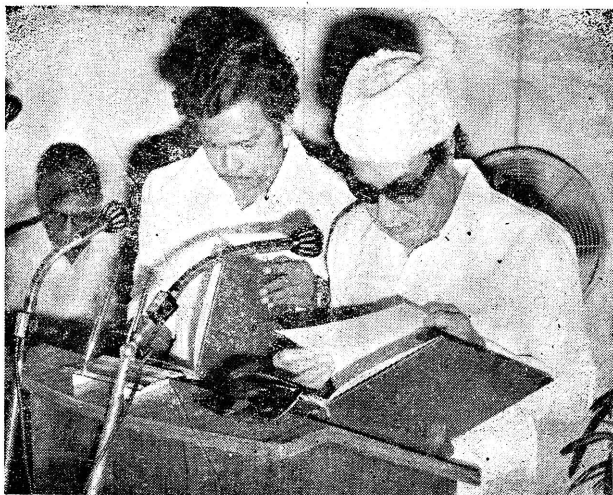
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Besides cereal crops like rice, jowar and bajra, SPIC DAP is also good for sugar-cane, cotton, groundnuts, tapoica, as well as dry-land crops.

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Eight Parliamentary Secretaries have been sworn in at a brief function held at Secretariat on 26-6-'78. The Chief Minister, Thiru M. G. Ramachandran, administered the oath of office and secrecy to Parliamentary Secretaries. He read out the oath in Tamil and the Parliamentary Secretaries took it in Tamil.

Thiru Nanjil M. Vincent,
Parliamentary Secretary to Minister for Finance.



Thiru A. Vellaisamy,
Parliamentary Secretary to
Minister for Education.



Thiru P. G. Kittu,
Parliamentary Secretary to
Minister for Transport.



Thiru M. A. Jayavelu,
Parliamentary Secretary to
Minister for Law.



Thiru R. Arunachalam,
Parliamentary Secretary to
Minister for Health.



Thiru P. Musiriputhan,
Parliamentary Secretary to
Minister for Revenue.



Thiru Isari Velan,
Parliamentary Secretary to
Minister for Information and
Religious Endowment.



Thiru Anur Jagadeesan,
Parliamentary Secretary to
Minister for Co-operation.

Green Gram- Cotton Rotation Pays

The Agricultural University, Coimbatore, has been carrying researches in various crops, suitable to varied soil and climatic conditions. A host of grains and pulses have been evolved and recommended. CO2 green gram is a promising variety released by the University.

Leguminous crops in rotation help fix atmospheric nitrogen into the soil. When ploughed into the soil they add organic matter and humus essential to improve the soil. They also release the fixed form of plant foods for the crops to absorb easily.

In Tamil Nadu under garden land conditions a three crop rotation is usually followed consisting of a grain crop, a leguminous green manure crop and a cash crop. As a grain crop cholam or cumbu or ragi is grown in February-May. As a leguminous green manure sunhemp is grown in June-July and cotton as a cash crop is grown in the middle of August-January.

Sunhemp is a succulent crop, requires frequent irrigation and produces little organic matter. Its ability to fix nitrogen is also poor. In the place of sunhemp the farmers can grow an alternative grain-cum-green manure crop even with limited water supply.

Green Gram

CO 2 green gram is one such crop which can serve this purpose. It is a short duration crop of about 75 days and yields well. Experiments were conducted at Coimbatore with sunhemp and CO 2 green gram in two separate plots where cholam was the previous crop. During the first week of June sunhemp was sown at the rate of one quintal of seed per hectare by broadcasting and CO 2 green gram is dibbled at the rate of 9 kg of seed per hectare with 22 X 15 cm spacing. Both the seeds were mixed with rhizobium culture before sowing at 20 gm per kg of seed. Basal dose of 20 kg nitrogen and 40 kg phosphate was given for both the crops. Green gram was protected from insect pests with Sumithion at peak flowering and pod formation stages. Sunhemp received four irrigations and was ploughed in situ on the 60th day when it was in full bloom.

Green gram with three irrigations matured in 70 days and gave 760 kg of grain per hectare. After harvesting the pods the crop was ploughed and incorporated in the soil. A month later soil samples were analysed for available nutrients and organic matter content. It showed 0.5 per cent nitrogen 0.2 per cent phosphates, 1.1 percent potash and 4.3 per cent phosphates, 1.1 percent potash and 4.3 per cent organic matter for the sunhemp incorporated plot and 0.5 per cent nitrogen, 0.3 per cent phosphates, 1.5 per cent potash and 4.7 per cent organic matter for the green gram incorporated plot. The well spread deep root system of green gram made it possible to absorb the nutrients from the deeper soil layers and on soil incorporation they were left on the top soil.

To see the effect of sunhemp and green gram incorporations MCU 5 cotton was grown during the first week of August adopting the recommended package of practices.

Increase in Yield

The crop from sunhemp incorporated plots gave 20.9 quintals of kapas per hectare and green gram incorporated plots gave 21.7 quintals of kapas per hectare. Green gram — cotton rotation with 7.6 quintals of gram and 80 kg extra kapas yield resulted in an additional net profit of Rs. 2,000/- over sunhemp — cotton rotation.

A SERVANT OF THE PEOPLE

Shri Kamaraj has risen to eminence not only in Madras State but in India by his continuous service of the people. Few persons have a greater right to be called a servant of the people than Shri Kamaraj. It has been my privilege to know him as a friend and a comrade for many years, and my regard for him has grown the more I knew him.

As Chief Minister of Madras, he has presided over a Government which has been a model of efficiency and good administration....

Aug. 7, 1962 (Sd.)

JAWAHARLAL NEHRU

Courtesy : Kamaraj—60th Birth day Souvenir.

K. SHANMUGHAM,
Central Institute of Cotton Research,
Regional Station, Coimbatore

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

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

Mahathma Gandhi.

