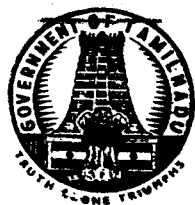


# Chief Minister's Nutritious Meal Programme



தரம் பரிவையும் போக்க வேண்டும்  
பண்ணையும் வளரிக்க வேண்டும்"  
—உட்கட்டர் எம்.ஜி.ஆர்

AN APPRAISAL  
1987



**CHIEF MINISTER'S  
NUTRITIOUS MEAL PROGRAMME  
AN APPRAISAL**

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**PUBLIC (CMNMP) DEPARTMENT  
GOVERNMENT OF TAMIL NADU**

**1987**

372.1716  
DEV-TN

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DOC. No. 399/.....  
Date. 28/9/87.....

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*Dated 19th January 1987*

## **FOREWORD**

The idea of providing whole-some food to the needy children, stemmed from my own childhood experience of poverty. When hunger haunted my home, a lady next door extended a bowl of rice gruel to us and thus saved us from cruel death. Such merciful women-folk elected me as the Chief Minister of Tamil Nadu having great faith in me. I felt it is my bounden duty to provide atleast one meal per day to the poor children in order to eliminate the suffering of their helpless mothers. Thus was born the massive nutritious noon meal programme which on date covers more than 8.5 million children through 66,000 centres spread all over the State of Tamil Nadu.


The programme is not just to appease the hunger of the children, though it is the most important of the aims. We have to build the character of the children in all possible ways and should see them as responsible citizens of tomorrow.

I am happy to note that the appraisal of the Nutritious Meal Programme conducted by Thirumathi Rajammal P. Devadas, Director, Sri Avinashilingam Home Science College for Women, Coimbatore with the help of her colleagues and students has proved

that the objectives of the programme have been effectively achieved. I am confident that the sceptical eye-brows that were raised when I first introduced this scheme will now close down in content and happiness.

I strongly feel that any welfare-State committed to the cause of equity and justice can afford to spend Rs. 200 per annum per poor child towards pacifying its hunger.

I am sure that this book would convince the policy makers and the implementors engaged in schemes for the welfare of children about the efficacy of this programme in attacking the prevalent malnutrition among children, particularly in the third world countries.



(M. G. RAMACHANDRAN)

## AUTHOR'S INTRODUCTION AND ACKNOWLEDGEMENT.

A nation's children reflect its prosperity and hope for the future. They are its biggest human asset for development.

Childhood is a period of rapid physical and mental growth and development. The nutritional requirements of children are also greater than those of the adults in terms of unit body weight. Inadequate nutrition during childhood cripples the physical, mental and intellectual development of children with the consequent economic set backs.

Malnutrition is the direct cause of death of 5,00,000 children every year in India. Nearly 75 per cent of the infant mortality is attributed to malnutrition. In view of these disastrous effects which lead to permanent losses to the society, ameliorative measures must be implemented most urgently.

Among the various strategies to overcome malnutrition, supplementary feeding programmes constitute one of the promising short term measures for a nation. In December 1983, a historic International Workshop on School Feeding and Education was conducted by UNESCO at Sri Avinashilingam Home Science College at the invitation of the Government of India, with the co-operation of the Government of Tamil Nadu in collaboration with UNICEF, FAO, WHO and with the support of UNESCO Centres, Netherlands and the Bernard Van Leer Foundation. The 47 participants who attended the Workshop from 25 countries stressed how school feeding programmes can contribute to learning activities in addition to the obvious nutritional support they provide to the recipients.

The State of Tamil Nadu in India is fortunate that the Chief Minister's Nutritious Meal Programme (CMNMP) is being implemented from 1st July 1982 onwards. It is growing in its dimensions day by day and the outcomes of the

programme are highly encouraging. Today the Hon'ble Chief Minister's Nutritious Meal Programme covers over 8 million children upto the age of 15 years across the whole State. At this juncture, a publication of this type is a felt-need to educate and impress upon the public, politicians and the fellow scientists throughout the world, about the benefits of the programme. This publication will serve as a guide, with all the available information, to all those who are involved in the programme and also as an eye-opener to all those who have any reservations about this noble venture.

The author expresses her reverential gratitude to the Hon'ble Chief Minister of Tamil Nadu, Puratchi Thalaivar Dr. M. G. Ramachandran for his infinite concern for the poor with a heart larger than the Himalayas, and generosity beyond expression, which had prompted the launching of this greatest welfare programme in the world. The impact of this magnificent gesture is far reaching with its benefits, far above all expectations. The author offers this publication for his sacred cause.

The author is grateful to the Hon'ble Minister for CMNMP for his intense interest and assistance. She thanks the Secretary and Members of the High Level Committee for their suggestions.

The author is grateful to the Government of Tamil Nadu for coming forward to publish this book.

She is thankful to Senthamil Selvar, Tamil Peravai Semmal, Dr. T. S. Avinashilingam, Founder-president, Sri Avinashilingam Home Science College for his constant and inspiring counsel and involvement in the nutrition programmes.

The author is thankful to Dr. S. Premakumari, Professor of Nutrition, Sri Avinashilingam Home Science College for her help in the preparation of this manuscript, all the other professors and assistant professors and the post graduate students for the data meticulously obtained.

The responses from the officials in charge of the programme, the nutritious meal organisers, parents and the children who have furnished information on the operation of the nutritious meal programme are thankfully acknowledged.

The author dedicates the book to the revered memory of a patriot and freedom fighter, Late Thiru K. Diraviam, I.A.S. who was the Chief Secretary, Government of Tamil Nadu, when the Chief Minister's Nutritious Meal Programme for Children was inaugurated on 1st July 1982. He had a big part in designing, planning and implementation of this programme with deep commitment to serve the poor. With meticulous planning and dedication he gave not only an astounding start to the programme but also a firm foundation for its sustained success.

**RAJAMMAL DEVADAS,**

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*Sri Avinashilingam Home Science College.*





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## CHAPTER I

## GENESIS OF CHIEF MINISTER'S NUTRITIOUS MEAL PROGRAMME IN TAMIL NADU

“Of all the blessings one may have, we deem naught as of worth, except the gift of children full of wisdom, on this earth” said the reputed Tamil Poet Saint, Thiruvalluvar.

The patriot poet, Subramania Bharathi wanted children, the future citizens of Bharat, to rise above all obstacles and emerge as victors. He addressed the young generation as follows:—

“Come, Come, you with eyes glowing bright,  
Come, Come, you stout-hearted one  
Come, Come, you whose words delight  
Come, Come, sturdy shouldered, mighty one”.

At the same time, poet Bharathi decried the lethargy and listlessness which were prevalent among children due to poor health.

Life is the noblest gift of God and health is its greatest asset. That is perhaps why Avvaiyar, the great Tamil poetess of ancient times had said, “Health is wealth”. Good nutrition is the foundation for health. The starting point for good nutrition is good food with hygienic handling. Therefore any investment in improving the nutritional status of children is an investment for the wealth of the nation.

The 1981 census gives the total population of India as 683.81 millions, with Tamil Nadu's share at 48.29 millions (Government of India, 1981). Children below 14 years of age, constitute 42 per cent of the population, and those between zero and six years constitute 21 per cent, which amounts to 121 millions. Children in spite of being a large proportion of the population, unfortunately, still remain as the most neglected segment.



Nutrition surveys carried out in different parts of India by the National Institute of Nutrition (NIN), National Nutrition Monitoring Bureau (NNMB), Sri Avinashilingam Home Science College and other groups during the past decade indicate that the energy intake of rural and urban children in the low income groups is inadequate (30-40 per cent below the recommended levels on an average) although their cereal intake is similar to that of well-to-do groups (150g/day). However, children in the well-to-do families consume higher amounts of other foods such as pulses, vegetables, fruits, fleshy foods, milk, sugar, oils and fats, while the children from the poor communities consume only negligible quantities of these foods (ICMR, 1982).

Inadequate diet and the consequent under and malnutrition pose serious threats to the growth and development of the nation. Vijayaraghavan (1981) points a dismal picture, that a majority of the children born in the low income families in India, are very much shorter and lighter than the children born in the well-to-do families. A little over half have body weights below 75 per cent of the standard weight for age.

In addition to growth retardation, five per cent of the preschool children and 10 per cent of the school children from the poorer sections in India show signs of vitamin A deficiency (Bhaskaram, 1981). Also 29 per cent of the school age children suffer from anaemia due to iron deficiency. The NIN (1981) has estimated that 13 per cent of the preschool children have less than 7.0g haemoglobin per 100 ml of blood, against the WHO standing of 11.0g per 100 ml. blood.

Malnutrition is the direct cause of death of 5,00,000 children every year. Nearly 75 per cent of the infant mortality is attributed to malnutrition (Devadas and Easwaran, 1974). Malnutrition, thus, makes the children an economic burden upon the society. It impairs the learning ability and school performance (Ameoff, 1981). In view of these disastrous effects some of which are irreversible, it is imperative that the nation takes positive steps immediately to wipe off malnutrition among children.

It is an accepted fact that overall socio-economic development would be the ultimate solution to the problem of malnutrition. However, it will take a long time to achieve such development. Hence, short-term measures are needed immediately to improve the nutritional status of the vulnerable groups.

Supplementary feeding programmes constitute one of the most promising and effective short-term measures to overcome malnutrition among children and improve the quality of their performance in school at the same time. As Loewald (1980) has pointed out, only in recent years, have school feeding programmes come to be looked upon in terms of their impact on education, on nutritional status of children and on general development.

Several different types of feeding programmes were in operation for children in Tamil Nadu until July 1982. They included: the Special Nutrition Programme (SNP), Modified Special Nutrition Programme (MSNP), Family and Child Welfare Feeding Programme (FCWFP), Pre-school Feeding Programme (PFP), Applied Nutrition Programme (ANP), Integrated Child Development Services (ICDS), School Lunch (Midday Meals) Programme (SLP or MMP) and other programmes sponsored by some voluntary organisations. These programmes were under different departments of the Government. Their cost, organisation, manner of operation and evaluation differed from each other. As a result, even a complete profile of the feeding programmes in the State and their outcomes were not easily available. At this juncture, it is highly commendable that on 1st July 1982, the Hon'ble Chief Minister of Tamil Nadu, Dr. M. G. Ramachandran, embarked on a new scheme for feeding over six million poor children in the age range of two to ten years, in the rural areas of the State (Fig. 1). The programme was further extended to cover children in the urban areas from Perarignar Anna's birthday, 15th September 1982. This new programme brought under one umbrella all the different types of feeding

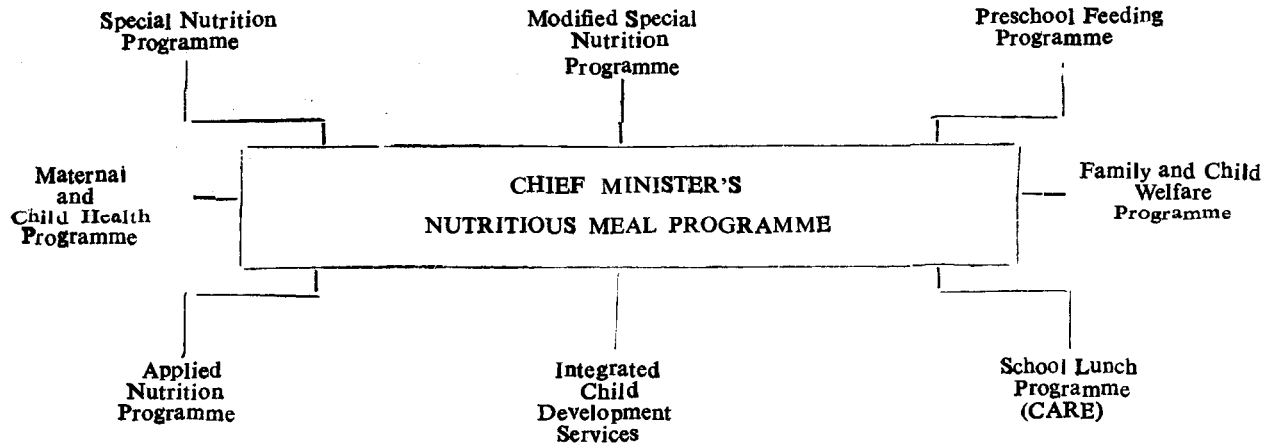
programmes (Fig. 2). The other unique features of this venture were feeding all the 365 days of the year and serving a fresh hot meal on the spot. This new programme, designated as the Chief Ministers' Nutritious Meal Programme for Children (CMNMP) is progressing splendidly in Tamil Nadu giving high satisfaction to the people. The programme has been further enlarged to cater to children in the age range 10 - 15 years (Classes VI to X) on Perarignar Anna's birthday, September 15, 1984. Thus today, nearly 8.5 million children are benefitting from the supplementary feeding.

The scheme has come as a great boon to the poor children of Tamil Nadu most of whom had never eaten rice and vegetables before (Jayalalitha, 1983).



**FIGURE 1**  
**Chief Minister Thiru M. G. Ramachandran, Inaugurating the Programme**





**FIGURE 2.**  
 The Feeding Programmes which were merged into the Chief Minister's  
 Nutritious Meal Programme on July 1, 1982

This publication presents an account of the operational details, monitoring, results of impact evaluation and opinions of various categories of people about the programme.

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FIGURE 3  
Children eagerly awaiting the Meal Time.







**FIGURE 4**  
Children Taking the Meat.





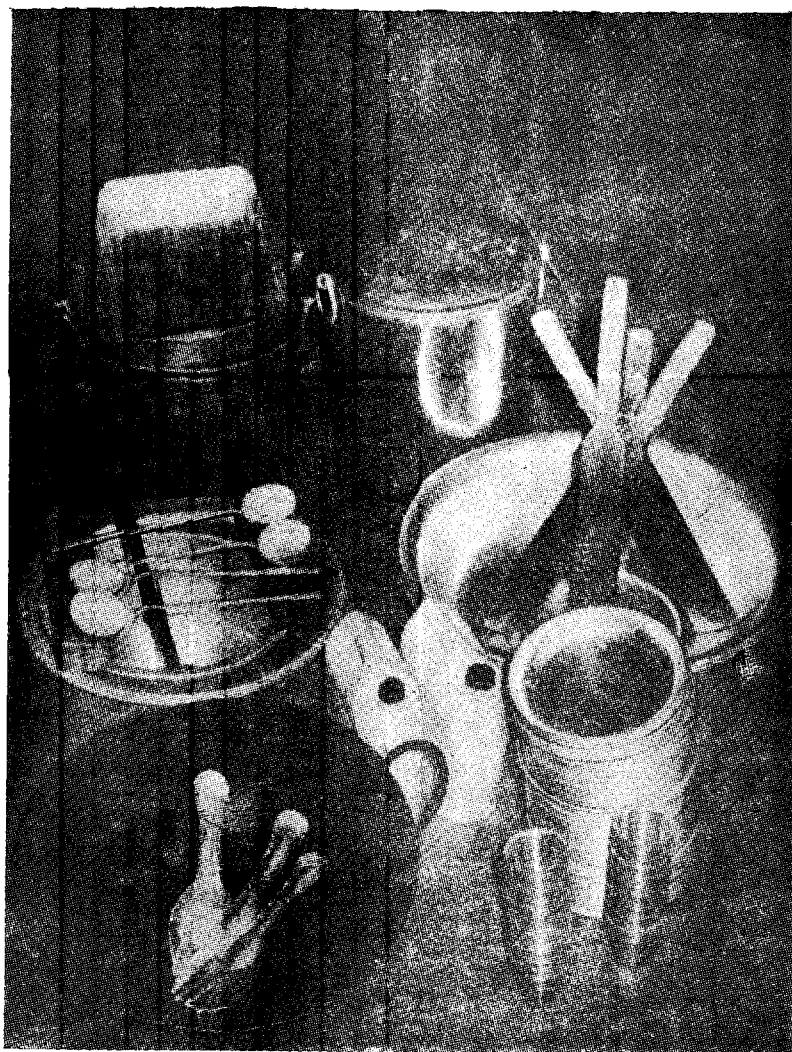
**FIGURE 5**  
Children eating to their satisfaction.





FIGURE 6.  
Mothers Feeding the younger children.





**FIGURE 7.**  
Cooking and serving vessels supplied to each centre





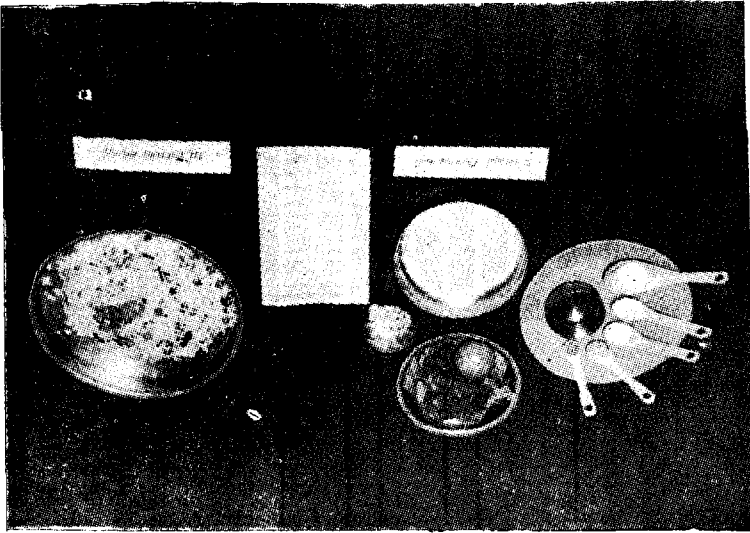


FIGURE 8.  
Raw Ingredients and Cooked Meal of a Pre-school child.



## CHAPTER II

ORGANISATION AND OPERATION OF THE  
CHIEF MINISTER'S NUTRITIOUS MEAL PROGRAMME.

The main aim of a well organised supplementary feeding programme is to furnish a nutritionally adequate meal to pre-school and school going children so that they are nourished well and become healthy, vigorous and grow up to their full stature physically, mentally and socially. Besides meeting the nutritional needs of the children, the supplementary meal can fulfil some of the educational goals in the school curriculum. It can serve as a medium of nutrition and health education for the pupils, parents and the community at large, towards the proper selection and provision of inexpensive, nourishing and attractive meals suited to individual needs. Devadas (1983) has enumerated objectives of the supplementary meal programme in the pre-school and school as follows:

To—

1. Improve the nutritional status of children.
2. Promote regularity of attendance at school and provide learning experiences in sciences, nutrition and social behaviour.
3. Improve learning and performance in the scheme.
4. Ultimately bring about economic development through improved standards of nutrition, since the capacity for work increases with better nourishment.

*Objectives of the CMNMPC :*

The CMNMP has assumed an important role in the overall  
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development of the children in Tamil Nadu. The following are the objectives of the CMNMP:—

To—

1. Provide more than one-third of the nutritional requirements and thus help promote health, growth, development and learning abilities of the children;
2. Enthuse children to go to school, remain in school and improve school attendance;
3. Foster sound social behaviour among children and dispel feelings of differences between various castes and communities;
4. Inculcate good dietary and personal hygiene habits and promote awareness of the importance of environmental sanitation ;
5. Impart health and nutrition education to children, parents and the community ;
6. Reduce school dropouts ;
7. Provide employment for women below the poverty line; and
8. Bring about a gradual socio-economic transformation among the poor section in rural communities.

*Age groups fed and the venue of feeding :*

Tamil Nadu's gigantic Nutritious Meal Programme feeds children in the age range of 2 to 14 years, living below the poverty line. The unique feature of this colossal programme is feeding all the needy children on all the days of the year. The programme thus gives the under fifteen an opportunity to have atleast one good meal a day. It is implemented through the following two channels:—

1. For the under fives, that is 2 plus to 4 plus years of age.
2. For the 5-15 years.

The first group is fed through the Child Welfare Centre (CWC) or Balwadies or Anganwadies. The children above five years of age are fed through the schools. The CWC's have been started in all the villages and slum areas, wherever the people below the poverty line are living. The neighbourhoods including the Tribals and Harijans have an easy and free access. Figures 3-6 show the children eagerly consuming the meal.

*Cent per cent coverage :*

The Programme benefits over 8.5 million children in the 2 plus to 14 plus age group. At the time of start, 16.93 lakh pre-school children were fed in 16,930 CWC's and 38.15 lakh of school going children in 36,000 primary schools including the schools under the Adi-draavidar and Backward Class Departments. At present, 28,125 CWC's and 37,874 school feeding centres are operating the programme benefiting a total of 2.2 million pre-school children 4.6 million school going children and 1.6 million High school children totalling 8.4 millions. Attempts are being made constantly to make each centre self contained with a storage area, cooking facilities including smokeless chula (oven), necessary cooking utensils (Figure 7) washing area and toilet facilities. The relevant Government orders released in connection with CMNMPC are given in Appendices A to G.

*Food served and the menu followed :*

At the request of the State Government, the menus for the nutritious meal scheme were planned by the author and her colleagues in Sri Avinashilingam Home Science College to meet one-third of the daily requirements as recommended by the Indian Council of Medical Research (ICMR) for the particular age groups. The ingredients of the meal are given in Table I and Figure 8.

TABLE I.

## COMPOSITION OF THE MEAL.

Target group.	Per head per day.				
	Rice.	Dhal.	Oil.	Leafy vegetables.	Other vegetables.
(1)	(2)	(3)	(4)	(5)	(6)
Pre-school children.	80	10	3	25	25
Primary and Middle school children.	100	15	3	25	25
High school children.	120	15	3	25	25

The cost of the meal including fuel and transport works out to 60 paise approximately per child per day. The meal provides about 400 k. cal. of energy and 10 g. protein for the pre-school child, 510 k. cal. and 12 g. protein for the Elementary Middle School child, and 600 calories and 16 g. protein for the high school child.

Utilising the food ingredients mentioned in Table I, the author standardised 28 recipes for a four week cycle, each of which could be prepared as a single item on a day, to ensure taste, flavour, conservation of nutrients, ease of preparation, serving and handling. Table II presents the four week cycle of menus suggested.

TABLE II.

FOUR WEEK CYCLE OF MENUS.

<i>Day.</i>	<i>1st week.</i>	<i>2nd week.</i>	<i>3rd week.</i>	<i>4th week.</i>
1	Mixed vegetable rice. ..	Tamato rice ..	Lime dhal rice ..	Puli rice with sprouted gram.
2	Drumstick greens rice ..	Black gram dhal pongal with greens.	Cluster beans rice ..	Dhal rice.
3	Dhal pongal with greens.	Curry leaves rice ..	Pudhina rice with sprouted gram.	Mixed greens rice.
4	Sambar rice .. ..	Puli rice with sprouted gram.	Nellikai rice .. ..	Nellikai rice.
5	Mango rice .. ..	Yellow pumpkin rice ..	Yellow pumpkin rice ..	Carrot rice.
6	Peas rice .. ..	Papaya rice .. ..	Beans rice .. ..	Beans rice.
7	Mixed vegetable rice ..	Beetroot pongal ..	Kurma rice .. ..	Tamarind rice.



All the recipes incorporate greens and vegetables along with rice and dhal. These menus have been suggested in order to have variety in appearance, taste and flavour. The details of the preparation of some recipes are presented in Appendix H.

The different varieties of rice are prepared in each CWC or school and served hot to children in an attractive way in clean surroundings.

Several guidelines and instructions have been given to the Child Welfare Organisers (Balasevikas) as well as the Nutritious Meal Organisers in the primary and high schools, from time to time. Some of the important guidelines are as follows :

*Instructions for food preparation :*

1. Always keep the kitchen and the cooking utensils neat and clean.
2. Before cooking, clean and then wash the rice in water once or twice. More number of washings will remove the water soluble vitamins from rice.
3. Always wash the vegetables before cutting. Washing and soaking the vegetables after cutting will lead to loss of nutrients.
4. Root vegetables must be cooked with skin, and the skin removed only if needed after cooking.
5. Cut the vegetables into larger pieces, but small enough for little children to chew.
6. Use only a small amount of water, adequate for cooking. Do not drain the excess amount of cooked water.

7. First allow the water to boil and then add the cut vegetables so that the cooking time is reduced to 5 to 10 minutes.
8. Cook the vegetables in covered utensils. If the utensils are opened often, or if the ingredients are stirred often while cooking, the vitamins will be exposed to air and lost.
9. Never add cooking soda while cooking foods. It destroys the vitamins in foods.
10. Always use fresh vegetables for cooking. They contain more vitamins.

*Points to be considered while serving the food :*

1. Ensure that the serving person is clean. Keep the serving utensils and serving places clean.
2. Keep the eating place clean, beautiful and attractive.
3. Keep the cooked food covered before serving and while serving.
4. Serve food to children at the appointed time correctly.
5. Before serving food make sure that the plates and tumblers are clean.
6. Do not ask the children to bring the plates and tumblers from home. Food should be served to them on the plates made available in the feeding centres.
7. Help the children to wash their hands before eating
8. Seat children neatly while serving.
9. Help the children say the prayers after serving the meal to every one and start eating only after saying the prayers.
10. Teach children to eat food without spilling or wasting.

11. See that the children do not dirty their hands by touching their hair, nose, leg, feet and floor, while eating.
12. Clean the place and mop it with a disinfectant after eating.
13. Teach the children to wash their plates and tumblers themselves.
14. Throw the plate waste into the garbage bins or compost pits.

Since the area available in the Balwadi or Primary|Higher school is generally limited, the children should be divided into two groups and served if necessary, in shifts. If the timings are announced and strictly followed, one can avoid unnecessary crowding during the lunch time.

*Use of hay box in the C.M.N.M.P.*

Hay box is a convenient, inexpensive labour saving device that could be used to save time and fuel consumption. It is an insulated box, basket or tub where hay is used to surround food which has been partially cooked so as to allow cooking to proceed with the heat already produced by the fire and to retain the food hot until required. The cheapest type of Hay box costs five rupees.

*Procedure for preparing and using the hay box.*

For preparing food for 100 children, get a wooden box of dimensions 60 cm. x 30 cm. x 60 cm. If a box is not available, construct a vat with red soil or cement and fill the bottom of the box|vat with hay to a height of 15 cm. and make a depression at the centre so that the cooking vessel can rest properly at the centre of the hay. Prepare a pillow with a jute bag of dimensions 60 cm. x 30 cm. x 8 cm. and fill it with hay.

In the cooking vessel, take water two times the quantity of rice and boil. Add the washed rice to the boiling water and allow to boil. Leave five minutes, after it starts boiling



**FIGURE 9.**  
Use of Hay Box in the Nutritious Meal Centre.





FIGURE 10.  
Use of Smokeless Chulah in a Nutritious Meal Centre.



and then cover the vessel with a plate. Transfer the vessel to the hay box and cover the top with the hay bag (figure 9). If the vessel is opened after 40 minutes, the food will be hot, attractive, cooked and will be ready to eat. If the food is kept covered in the box itself, the food will remain hot for five hours.

Studies at Sri Avanashilingam Home Science College have revealed that when hay box was used 58 per cent of the Cooking time and 44 per cent of the money spent on fuel were conserved while cooking rice and dhal.

## 2. USE OF THE SMOKELESS CHULAH IN FEEDING CENTRE:

Open fire cooking is a very inefficient method of cooking since only 5 to 10 per cent of the potential energy in the fuel wood is utilised for the cooking process. The indigenous chulah is a simple and cheap device. But it is an unhealthy device since the women who handle cooking in the house are exposed to constant emission of smoke and soot resulting in poor health condition. To overcome the disadvantages of indigenous chulah new and improved devices are being invented. One among them is the smokeless chulah. The improved smokeless chulah can protect women in the rural areas from the hazards of daily smoke in their eyes and kitchen (Figure 10).

The working principles of smokeless chulah are: For the fire, an air supply is necessary and so, near the fire is an air inlet.



The draught between air inlet and smoke outlet makes the fire burn faster or slower.

The hot smoke and the flames of the fire tend to rise towards a smoke outlet. The smoke has a tendency to shoot upwards so long as it is kept hot. Therefore we have to keep the smoke sufficiently hot as to help the chulah work smoothly.

Smokeless chulah is made of mud. The size of the first pot seat and the second pot seat are 17.5 cm. and 13.5 cm. respectively (Figure 10). The distance between them is 10 cm. The height of the chulah is 24 cm. and the length of the base is 44.5 cm. The smoke outlet pipe which is separately made by using potter's wheel is fixed at the time of installation. The length of the pipe is decided according to the height of the ceiling.

The main purpose of this chulah is to utilise the heat as far as possible and regulate the smoke so as to travel through controlled passage. It also counts that the consumption of fuel is lesser to an extent of 25 per cent when food is cooked through this chulah. In this chulah it is easier to start and maintain the fire as there is always a fresh supply of air from under the gratings. The vessels and the kitchen are kept clean of soot when this chulah is used. The different degrees of heat which prevail under the two pot seats help the cooking to a great extent. The cooking also is done in a lesser time saving about 20 per cent time. The chulah is made of locally available materials which helps to bring down the cost. Above all it is strong and durable and occupies less space than the other chulahs.

Attempts were also made by Sri Avinashilingam Home Science College to introduce solar cooker in the nutritious meal programme centres. However more studies are needed along this line before recommendations are made on a larger scale



**FIGURE 11:**  
**School children engaged in gardening.**



### *Raising School Gardens.*

The school garden forms the laboratory for practical application of the nutrition lessons taught in the class room. School garden affords an opportunity for children to observe growth in living organisms the plants and foster the love of nature in children (Figure 11). Teaching children to eat and like foods that are essential for healthy growth becomes real when they plant, care for and later consume the vegetables from their own nutrition garden.

A well planned garden is an asset to the school. Vegetables such as tomatoes, green leafy vegetables, cluster beans, pumpkin, beans, drumstick and papaya when grown in the school garden help to teach children the basic principles of agriculture and nutrition. The selection of vegetables and plants grown in the school garden help children to learn the nature of plants and develop a taste for mixed diets. Furthermore, when the garden products are used in the school meal, the expenditure on vegetables gets reduced. If a nutrition garden is maintained in a school, the waste water from the kitchen and bathrooms could be utilised for irrigation thus converting the kitchen waste into good rich manure. Raising a school garden in addition, serves as an incentive to have gardens at home and this promotes the consumption of fresh raw vegetables and fruits by the families. Hence every nutritious meal centre should be encouraged to develop and maintain a school garden as a daily routine.

### *Delivery of food articles.*

The dry food commodities namely, rice, pulses and oil are delivered at the door steps of the CWC's Schools by lorries for one to two months in advance through the Civil Supplies Corporation of Tamil Nadu according to a fixed programme drawn in consultation with the agencies concerned. Suitable containers have been provided for each centre for the storage of the required quantities of food and oil at that centre. Thus, regularity, quantity and quality of supplies have been ensured.

The staff in the centres purchase only vegetables and firewood locally. For the supply of vegetables, recently, the Agro-growers societies have been authorised.

*Cost of a meal and the programme:*

Although the school lunch programme has been in operation in Tamil Nadu from 1957, under the previous scheme, the Government's contribution was only 10 paise|meal|day and the local bodies were expected to make a contribution of 5 paise per child per day, which in many cases was not forthcoming. The teachers in-charge of the programme were hard put to muster local resources as a daily routine.

The programme was therefore carried on relying heavily on voluntary contributions or no contributions. In contrast the CMNMP provides for an outright grant of 60 paise for each child per day as food and fuel charges and 5 paise per child as administrative overhead expenses. The Government has thus undertaken the entire financial responsibility for the programme.

The total cost of implementing this programme was estimated in 1982 to be in the order of Rs. 120 crores per year. However, with the price hikes and expanding child population, the expenditure is around Rs. 170 crores year. The State Government and more so, the people of Tamil Nadu, have come forward with confidence to bear this burden cheerfully because of their firm faith that this expenditure is an investment made in the future of the country and an advance deposit for the well being of the citizens of tomorrow.

*Personnel*

(a) *For the 'Below-Fives'.*

Each Child Welfare Centre is managed by a Child Welfare Organiser (Balasevika or Anganwadi worker) and two Child Welfare Assistants-all of whom are selected from the local community where the centre is located. The Balasevikas are

in most cases, women with a Secondary School-Leaving Certificate in the age-group of 25 to 35 years. In the case of widows, the age range is 25 to 40 years. The assistants are recruited from the same villages|slums from among those who can read and write Tamil and who are in the age range of 25 to 40 years. They have been trained to cook the nutritious meal hygienically and serve it attractively to the children. The Balasevika is in overall charge of the CWC's. She imparts pre-school education. She also ensures that a happy atmosphere prevails in the CWC's. Suitable educational aids, play materials, cooking utensils, and serving plates and tumblers have been supplied to all the CWC's.

(b) *For the 'Above Fives' :*

A Nutritious Meal Organiser (NMO), a part time cook and one helper to assist and clean the utensils have been appointed in each primary school|high school. The Nutritious Meal Organiser is responsible for running the programme and for the maintenance of various records. Wherever the number of pupil beneficiaries is more than 500, provision has been made for the appointment of one more cook.

*Training the personnel:*

The personnel have been trained through a multiplier training system. The faculty of Sri Avinashilingam Home Science College, Coimbatore trained the Block level (Panchayat Union) Extension Officers for Social Welfare (Mukhya Sevikas) in the 15 District Head Quarters. The Mukhya Sevikas in turn, have trained the Child Welfare Organisers.

The Extension Officers underwent the training at Sri Avinashilingam Home Science College, in three phases. The first phase of training was given just before starting the feeding programme. The main aspects covered in this phase were : Importance of nutrition to the health and well being of children; The major nutritional problems in childhood in Tamil Nadu ; The role of feeding programmes in solving

malnutrition; How to assess the nutritional status of children; How to prepare the nutritious meals, and How to serve the nutritious meals pleasingly. In all, 1,125 village level women Extension Officers (Gramasevikas and Mukhya Sevikas) from the 15 Districts of Tamil Nadu were given the first phase of training. These trainees, in turn, trained 20,000 Child Welfare Organisers.

During the second phase of training some salient aspects of pre-school education were emphasised. The same Extension Officers were trained in the 15 Districts of Tamil Nadu by the same faculty members of Sri Avinashilingam Home Science College.

In the third phase, a group of 50 Trainers from Teacher Training Institutions appointed as 'Key resource personnel' were given 21 days training on pre-school education and teaching in English medium in Nursery Schools. These trainees, trained in turn, 4,343 Child Welfare Organisers spread over 378 Community Development Blocks. In addition to these training programmes, 100 instructors with Bachelor or Master's Degree in Home Science, recruited for this programme, were trained for one month in Sri Avinashilingam Home Science College in the methodology of extension work. The college faculty went also to eight Community Development Blocks in the State, and gave one week training directly to 392 Child Welfare Organisers in order to make first hand observations and get the feed back experience.

The faculty of the college helped also in the one day training for 1,500 Nutritious Meal Organisers appointed for the Primary School Feeding Programme.

Three booklets carrying detailed procedures, recipes and methodologies have been published by the Government of Tamil Nadu with the help of Sri Avinashilingam Home Science College, to serve as 'Guides' to all the functionaries involved in the programme.

*Health inputs :*

The Balasevikas have been equipped also to teach children the basic facts of health and hygiene. A detailed programme for providing health cover for the pre-school children has been launched. The scheme provides for the maintenance of health cards for all the beneficiaries in the CWC itself. The Medical Officers of the Primary Health Centres and the Public Health department personnel visit every centre, examine the children and provide proper treatment and care for those who are sick. Weighing scales have been supplied or made available to each CWC, with the assistance of UNICEF, to enable the recording of the weights of the children, once in three months. The CWOs have been trained to take and record the weight of the children. The 'Multi-purpose Health Workers' of the Block also visit the Nutritious Meal Centres, once a fortnight, during their regular rounds and help the CWOs in recording weights and noting observations on the health status of the children. The Public Health department personnel conduct health inspection on the pupils of the primary and high Schools once a year.

*Work ethics :*

Wherever there are open spaces around the CWC's the Balasevikas encourage the children in gardening and tending plants to produce vegetables which they themselves would consume in the nutritious meals. This is to create a sense of personal involvement in the programme and also introduce children at an early age, to the importance and sanctity of working with their own hands, and to recognise the dignity of labour.



*Harbinger of a new social order :*

Thus the Chief Minister's Nutritious Meal Programme for children is not a 'dole' or a mere charity oriented feeding operation. On the other hand, it is a massive child development programme being carried out on an unprecedented scale. It is also a major women's employment programme, a health|nutrition education programme, a rural development programme and an anti-poverty programme in one. Thus the CWCs today, stand out as harbingers of the new social order. Children in the age range 2 to 5 years irrespective of their caste and religion, learn to move, mingle, eat, play, love and learn together, thus equipping themselves from a very early stage to be true citizens of India transcending all differences and divisions. Thus the objectives of 'Ram Rajya' of Mahatma Gandhi's dream are being fulfilled. What is now being attempted is a socio-economic transformation of the underprivileged.

*A people's programme :*

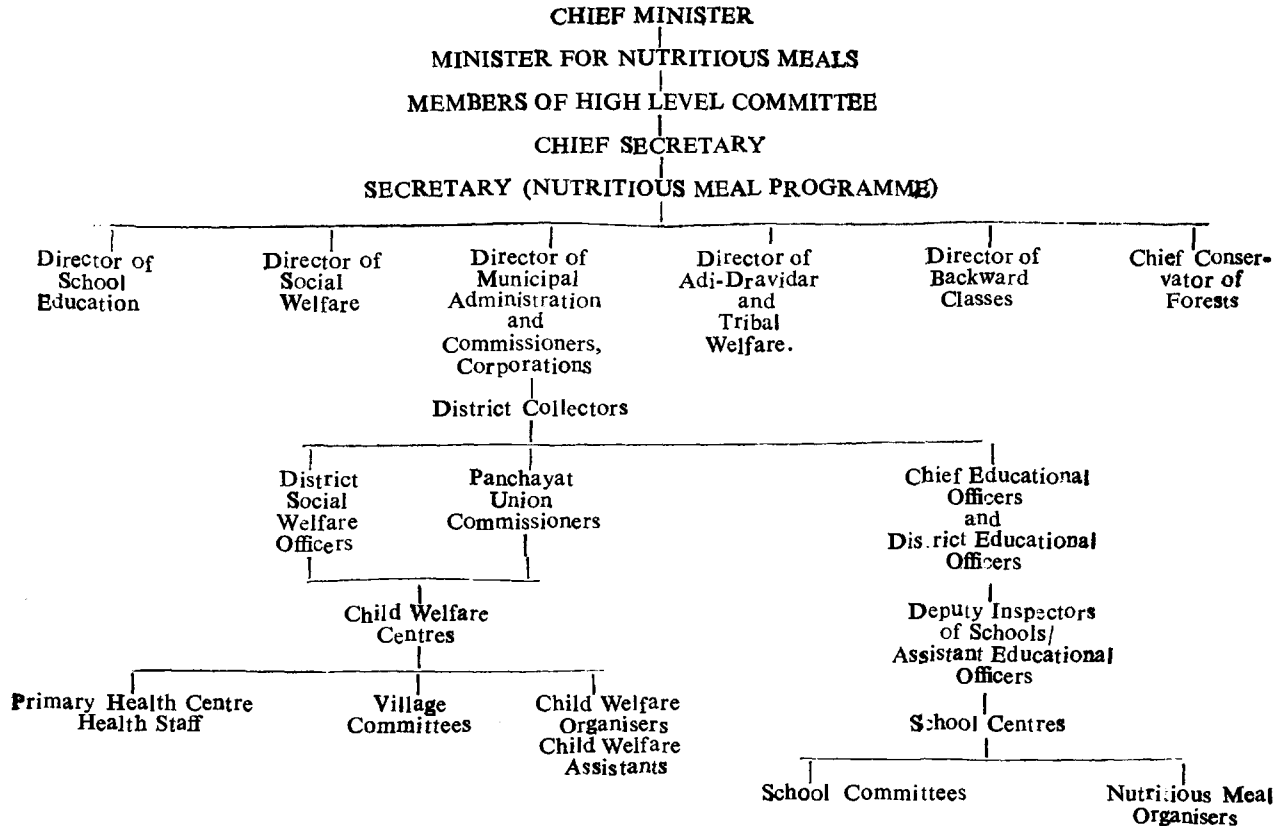
Since the programme utilises local personnel, inputs and traditions, its success and continuity are in the hands of the people themselves. The community itself is the care-taker of the huge undertaking. It is a programme of the people, for the people and by the people in every sense, fully supported by a strong political will, practical leadership, bureaucratic assistance and nutrition expertise. The scheme is a boon to the under privileged and helps to strengthen their social, economic and educational advancement and bring them into the main-stream, as active partners and participants in national development. Therefore its replicability is highly promising.

*Monitoring the Programme :*

The organisational chart for CMNMP is presented in Figure 12.

At the Apex level a High-level Committee headed by the Honourable Chief Minister with the Hon'ble Minister for the Nutritious Meal Programme as the Vice-Chairman of this committee, steers the programme. The list of members in the High Level Committee is presented in Appendix I. At the official level, the programme is administered and monitored through a powerful committee consisting of a chain of officials headed by the Chief Secretary, Government of Tamil Nadu.

# CHIEF MINISTER'S NUTRITIOUS MEAL PROGRAMME ORGANISATION CHART



At the District level, the District Collector is in overall charge in his revenue district. While the Panchayat Union officials administer the pre-schools through the extension officers under the supervision of the Director of Social Welfare, the Director of School Education monitors the primary school and High School sectors.

Village Committees have been constituted giving representation to women, parents, social workers, service clubs, philanthropists and representatives of the underprivileged classes. These committees have been entrusted with the responsibility of monitoring the functioning of the CMNMP in their locality. A net work for feed back and information has been built up weaving together official and non-official agencies. The Nutritious Meal Organisers and Child Welfare Organisers keep records of attendance, accounts and stock of commodities. They despatch periodical reports in the forms and proforma prescribed for the purpose to the Panchayat Union Officer and District Education Officers respectively, who in turn, report to the District Collector. The Collector is responsible to report the progress to the Chief Secretary.

The checklist prepared for the evaluation of the noon Meal Centre is presented below :

**OBSERVATION SCHEDULE TO EVALUATE THE VARIOUS ASPECTS OF A NOON MEAL CENTRE.**

Address of feeding centre :

Date :

Serial number and Item.	Criteria.	Evaluation.	
		Yes.	No.
(1)	(2)	(3)	(4)
1. Menu .. ..	Nutritious Attractive Colourful Adequate Tasty.		

2. Hygiene and environmental sanitation. Water facilities use of boiled water for drinking.

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Sub. National Systems Unit.  
National Institute of Educational Planning and Administration  
Block 1, Sector 10, Mayapuri, New Delhi-110016  
DOC. No. 3991  
28/9/87

<i>Serial number and Item.</i>	<i>Criteria.</i>	<i>Evaluation.</i>	
		<i>Yes.</i>	<i>No.</i>
(1)	(2)	(3)	(4)
	Washing hands before meals. Toilet facilities.		
3. Cooking area ..	Adequate space Clean- lines Presence of smokeless chula. Use of Hay Box.		
4. Teaching and other activities in the Balwadi/School.	Use of black board. Use of aids. Use of play equipment. Alertness of children.		
5. Teacher's attitude.	Encouraging children to eat Discussion about foods. Forcing the child to eat Checking the wastage of foods.		
6. Others ... ..	Maintenance of height weight records. Parents meetings. Attendance records Any other.		

Signature of Investigator.

**References :**

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4. Prabhakaran, J. C. D. (1983) Nutritious Noon Meal Scheme. *Roots and Branches*. *Tamil Arasu*, Vol. 14, No. 5, pp. 10-11.
5. *Tamil Arasu* (1982) A scheme to evolve an egalitarian society, Vol. 13, No. 1, pp. 2-5.
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## CHAPTER III

## IMPACT OF THE CHIEF MINISTER'S NUTRITIOUS MEAL PROGRAMME

The United Nations Educational Scientific and Cultural Organisation (UNESCO, 1979) has defined evaluation as a process, which attempts to determine as systematically and objectively as possible, the relevance, effectiveness and impact of activities in the light of their objectives.

Hence evaluation of nutrition intervention feeding programmes can provide useful information about how the programmes are functioning, with respect to achieving the goals set. Evaluation of the Chief Minister's Nutritious Meal Programme is indispensable for programme monitoring and development. In any such evaluation, the purpose of the programme should be the focal point.

Different techniques such as observation, checklists, questionnaires, interviews and weighing, may contribute to the total evaluation of the programme. Evaluation of the feeding programme could be done from different angles, such as effects on the nutritional status of children, effects on dietary intake, effects on morbidity and mortality rates and effects on the nutritional knowledge and practices of the children and their mothers.

Since the CMNMP is a new venture, introduced at a cost of more than 160 crores of rupees, proper evaluation is crucial for effecting timely corrections of the lacunae, if any, in its efficient implementation. The staff and postgraduate students of Sri Avinashilingam Home Science College are involved in this evaluation under the guidance of Dr. Rajammal P. Devadas, the Director of the institution. The results of their evaluations are presented in this chapter.

**Methodology :**

Keeping in view of the objectives of the study, 31 C.W.C.'s for pre-school children from the rural areas, eight C.W.C.'s from the urban areas, 28 primary schools from the rural areas and nine primary school centres from the urban areas in and around Coimbatore were selected for the study. From these 76 feeding centres, samples were drawn for different sub-studies. Since both the rural and urban children belonged to the poor income groups, all the children in the selected centres and schools were included and dealt as one group.

The methodologies pertained to three areas of investigation. They were:

1. Assessing the nutritional outcomes ;
2. Assessing the outcomes of nutrition education in the programme ; and
3. Assessing the scope of involving women's clubs in the programme.

**1. *Assessing the nutritional outcomes :***

The nutritional outcomes of the programme were studied over a period of 12 months, in terms of anthropometric measurements, clinical and biochemical picture and dietary intake of the children.

Table III gives the number of the children included in this study.



TABLE III

AGE AND SEX WISE DISTRIBUTION OF THE CHILDREN INCLUDED FOR THE NUTRITIONAL ASSESSMENT.

Age in years.	Number.		
	Male.	Female.	Total.
(1)	(2)	(3)	(4)
2 .. ..	256	297	553
3 .. ..	430	461	891
4 .. ..	392	397	789
5 .. ..	165	179	344
6 .. ..	161	156	317
7 .. ..	150	200	350
8 .. ..	165	184	349
9 .. ..	123	141	264
Total ..	1,842	2,015	3,857

A total of 1,842 boys and 2,015 girls in the age range 2-9 years were included in the study from 76 rural and urban feeding centres for the nutritional status assessment. The age of the children as registered in the school records was taken in this investigation.

(a) *Impact on anthropometric measurements:*

The anthropometric measurements, heights and weights were taken for all the selected children, every month over a period of 12 months of their participation.

(i) *Height:*

A non-stretchable fibre glass measuring tape was used for height measurements. It was fixed on to an even wall, the zero point touching the bottom of an even floor. The children were helped to stand straight on the floor with feet bare, heels touching the zero point with feet paralleled to each other with the heels, buttocks, shoulders and back of heads touching the wall, in an erect position. The head was held erect comfortably with the arms hanging at the sides in a natural manner. A wooden scale was placed gently on the head perpendicular to the wall and the reading corresponding to height taken from the tape correct to 0.1 cm.

(ii) *Weight :*

A bathroom weighing scale was used for recording the weight of the children who were requested to strip of their clothing with only an underwear. The children were instructed to stand straight on the balance without touching or holding anything nearby. After every five weighings, the accuracy of the balance was checked using a standard weight.

(b) *Clinical assessment:*

Initial and final clinical assessment at the end of 12 months, was made on the 3,857 children, using a specially constructed clinical assessment form as shown in Appendix J.

(c) *Bio-chemical analysis:*

The initial and the final blood haemoglobin levels after a period of four months was estimated on 50 randomly selected pre-school and 50 primary school children on their finger prick blood sample using cyanmethaemoglobin method (Varley, 1963) and the results were compared against the values obtained from 10 non-participants in each group.

(d) *Cognitive development of the children:*

The impact of the nutritious meal programme on the cognitive development of the children was studied in four primary schools in Coimbatore city. From these schools two

groups of 60 children, one group participating in the CMNMP and the other group not participating were selected for the study. A test for the cognitive development (Problem solving and verbalisation abilities) of children was administered and scores were recorded. The level of the cognitive development of the child was assessed by a test consisting of three sets of seven pictures. The tests contained pictures of objects with which the children were familiar. Each set was shown three times - each time in a different order - and the children were asked to reassemble the pictures in their original sequence repeating the names of the pictures. The children were given three minutes for each set. Scores were given to the correct arrangement and also for verbalisation separately.

(e) *Diet surveys:*

A three day food weighment survey was carried out on 22 pre-school children and 10 primary school children to assess the quantity of foods and nutrients consumed by the children, and the data obtained were compared against the data obtained for a similar number of non-participants.

2. *Assessing the outcome for nutrition education in the feeding Programme:*

(a) *Nutrition knowledge of the children:*

Fifty children were selected randomly from each of two Child Welfare Centres in Vaiyampalayam (Control) and Athipalayam (Experimental) villages of Sarkarsamakulam Panchayat Union. After assessing their initial nutrition knowledge and their food habits, nutrition and health education was conducted in the experimental centres along with the help of audiovisual aids, through 23 sessions of 45 to 60 minutes duration each. At the end of the four months, the knowledge of both the groups of children and their food habits were assessed and the impact determined. The same

questionnaire was used to assess the knowledge of the children initially and finally (Appendix K).

(b) *Nutrition knowledge of the mothers:*

In order to find out the 'Take home' effect of the nutrition knowledge of the children, 400 mothers were randomly selected from 14 feeding centres. The children of these mothers were participating in the CMNMP. For comparison purpose, 100 mothers whose children were not participating in the feeding were also selected. Initially all the mothers were asked the following five simple questions :

1. What do you mean by nutritious food ?
2. List five foods you think are nutritious.
3. What are the advantages of using greens in the diet ?
4. What are the desirable methods of cooking rice and vegetables ?
5. What are the ways of conserving nutrients while preparing and cooking foods ?

and their answers were scores for a total of 20 points. At the end of 12 months all the 500 mothers were interviewed again and their knowledge assessed.

3. *Assessing the scope of involving women's clubs members in the programme :*

The possibility of utilising women's club members in the feeding programme was studied in five villages of Karamadai Block. The members of the five selected women's clubs were involved in menu planning, meal preparation, checking the attendance, distribution of meals, provision of drinking water and raising kitchen garden. The extent of such participation of the women's club members in the various activities of the Nutritious Meal Centres was evaluated.

*Findings of the study :*

1. *Nutritional outcomes :*

(a) *Anthropometric measurements:*

The mean height and weight increments of 1,842 boys and 2,015 girls studied over a period of 12 months are presented in Tables IV and V respectively.

TABLE IV.

## MEAN HEIGHT INCREMENTS OF CHILDREN STUDIED.

Age. Years.	Height in cm. (Males).			I.C.M.R. (1971) Std.	Age years.	Height in cm. (Females).			I.C.M.R. (1971) Std.
	Initial.	Final.	Increase.			Initial.	Final.	Increase.	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
2 (256) ..	87.3	93.3	6.0	82.8	2 (297) ..	85.6	91.0	5.4	81.8
3 (430) ..	92.0	96.9	4.9	88.9	3 (461) ..	88.8	93.0	4.2	82.8
4 (392) ..	97.6	102.4	4.8	93.0	4 (397) ..	95.7	100.7	5.0	82.5
5 (165) ..	105.1	109.1	4.0	103.4	5 (179) ..	104.9	109.2	4.3	105.2
6 (161) ..	111.0	117.2	6.2	105.9	6 (156) ..	108.9	113.4	4.5	108.2
7 (150) ..	115.8	121.0	5.2	109.5	7 (200) ..	112.5	118.4	5.9	112.3
8 (165) ..	120.0	125.9	5.9	116.3	8 (184) ..	117.9	124.0	6.1	120.4
9 (123) ..	124.9	131.0	6.1	121.4	9 (141) ..	123.8	129.7	5.9	121.7

The figures in paranthesis indicate the number of children in the particular age group.

The measurements given by the I.C.M.R. for the children of Tam'īl Nā'ū State have been taken as the standards.

TABLE V.

## MEAN WEIGHT INCREMENTS OF CHILDREN STUDIED.

Age in years.	Weight in cm. (Males.)				Age in years.	Weight in cm. (Females.)			
	Initial.	Final.	Increase.	I.C.M.R. (1971) Std.		Initial.	Final.	Increase.	I.C.M.R. (1971) Std.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
2 (256) ..	9.77	11.82	2.05	9.9	2 (297) ..	9.46	12.21	2.75	9.9
3 (430) ..	11.74	14.37	2.63	11.6	3 (461) ..	11.68	13.92	2.24	12.1
4 (392) ..	13.83	15.87	2.04	13.1	4 (397) ..	13.50	15.53	2.03	12.2
5 (165) ..	15.34	16.99	1.65	15.4	5 (179) ..	15.11	17.69	2.58	14.1
6 (161) ..	16.89	18.51	1.62	16.5	6 (156) ..	17.38	19.90	2.58	15.6
7 (150) ..	17.50	19.00	1.50	17.4	7 (200) ..	17.78	19.62	1.84	17.9
8 (165) ..	19.61	21.36	1.75	19.7	8 (184) ..	18.25	20.31	2.06	19.1
9 (123) ..	21.21	22.91	1.70	21.9	9 (141) ..	20.20	21.74	1.54	20.3

The figures in paranthesis are the numbers in the particular age group.

The measurements given by the I.C.M.R. for the children of Tamil Nadu State have been taken as the standards.

All the children showed increase in their height and weight measurements over a period of 12 months during the second year of the CMNMP. A mean increase of six cm. and above was registered by two year olds, six year olds, and nine year old children among boys and eight year olds among girls. When compared with the heights suggested by ICMR (1971) all the children had registered increments higher than those suggested by the ICMR.

The increments in weight ranged from 1.50 to 2.63 kg. in the case of boys and 1.54 to 2.75 kg. in the case of girls. When weights of the children were compared with the ICMR measurements, all the children had registered higher increments than the standards. Continuous participation of children in this programme has improved the nutritional status of the children.

(b) *Clinical picture:*

The initial and the final clinical picture of the 3,857 children is presented in Table VI.

TABLE VI.

INITIAL AND FINAL CLINICAL PICTURE OF THE CHILDREN STUDIED.

<i>Clinical signs.</i>	<i>Percent of children manifesting.</i>	
	<i>Initial.</i>	<i>Final.</i>
(1)	(2)	(3)
Healthy and free from disease ..	32	78
Angular stomatitis .. ..	39	12
Deficient subcutaneous fat .. ..	34	14
Poor musculature .. ..	40	12
Mild anaemia .. ..	30	10
Bleeding gums .. ..	29	5
Dry skin .. ..	25	5
Dental caries .. ..	18	14
Bitot's spots .. ..	7	2



Initially only 32 per cent of the children were healthy and free from deficiency diseases. At the end of one year, 78 per cent were free from obvious deficiency signs. Among the different deficiency signs angular stomatitis (39%), deficient subcutaneous fat (34%), poor musculature (40%) and mild anaemia (30%) were observed among the children in the beginning. But all these signs were reduced to a great extent as the children participated in the nutritious meal programme over 12 months.

(c) *Blood haemoglobin levels:*

The mean initial and the final haemoglobin levels of the selected children is presented in Table VII.

TABLE VII.

INITIAL AND FINAL MEAN BLOOD HAEMOGLOBIN LEVELS OF CHILDREN.

Groups.	Haemoglobin level/g per 100 ml.			't' value within the group.
	Initial.	Final.	Increase.	
(1)	(2)	(3)	(4)	(5)
2-5 years participants (50).	7.07± 0.25	8.10± 0.81	1.03	14.02**
Non participants (10)	8.15±	8.62±	0.47	1.15
	0.67	0.86	...	-
6-9 years participants (50)	8.42± 1.35	9.47± 0.72	1.05	6.60**
Non-participants (10)	9.51± 1.47	9.75± 1.07	0.24	0.38

\*\*Significant at one per cent level.

Figures in parenthesis indicate the number of the sample

The mean initial blood haemoglobin levels of the 2-5 years old group was 7.07 g|100 ml, while that of the 6-9 years old group was 8.42 g|100 ml. At the end of 12 months of

participation the haemoglobin concentration increased significantly for the participating children, at one per cent level of significance. However, none reached the 11g/100 ml., which is the standard prescribed by the WHO (1972) for children. If the same children continue to participate in the nutritious meal programme, it would be possible that their blood picture would reach the desirable levels. Although the controls had higher initial level of haemoglobin and were better off their increase was not significant. The reasons for higher initial levels in the control group might have been due to their slightly better dietary intake.

(d) *Cognitive development of the children.*—The impact of the feeding programme on the cognitive development of the children was carried out on 120 children from four primary schools in Coimbatore City. A test for the cognitive development of children was administered to the children individually and the scores they had obtained were recorded. The results are presented in Table VIII.

TABLE VIII.

SCORES FOR PROBLEM SOLVING AND VERBALISATION ABILITY OF CHILDREN (NUMBER STUDIED-30 IN EACH GROUP).

<i>Group.</i>	<i>Ability tested.</i>	<i>Boys.</i>	<i>Girls.</i>	<i>Mean.</i>
(1)	(2)	(3)	(4)	(5)
Participants	.. Problem solving	62.10	60.20	61.15
Non-participants		51.77	51.47	51.62
Participants	... Verbalisation.	62.67	62.43	62.55
Non-participants	..	59.47	56.00	57.73

In this study the children participating in the feeding programme although hailing from less privileged societies stood higher in problem solving and verbalisation than the non-participants.

(e) *Food and nutrient intake of children.*—The food and nutrient intake of a selected group of children in each category and a comparable control group was studied by the weighment method. Tables IX and X present the food and nutrient intake of the children participating in the CMNMP in comparison with a group of control children who were not participating in the feeding programme.

TABLE IX.

MEAN DAILY FOOD INTAKE OF THE TWO GROUPS OF CHILDREN STUDIED IN COMPARISON WITH THE CONTROL.

Foods.	2-5 years old						6-9 years old.						
	I.C.M.R. allowances.				Actual food intake*		I.C.M.R. allowances.				Actual food intake*		
					Experi- mental. (22)	Control. (22)					Experi- menta. (10)	Control. (10)	
				Grams.								Grams.	
Cereals .. .. .	222	162	117	356	267	172							
Pulses .. .. .	25	19	24	41	29	34							
Leafy vegetables .. .. .	45	10	6	50	11	6							
Other vegetables .. .. .	25	25	21	43	10	24							
Roots and tubers .. .. .	15			27									
Fruits .. .. .	50	8	15	23	24	6							
Milk .. .. .	275	12	19	250	15	25							
Fats and oil .. .. .	20	9	13	33	13	20							
Sugar and jaggery .. .. .	35	10	20	43	10	25							

Figures in parenthesis indicate the number in the sample.

\* Including the foods given in the C.M.N.M.P..

TABLE X.

MEAN DAILY NUTRIENT INTAKE OF THE TWO GROUPS OF CHILDREN STUDIED IN COMPARISON WITH THE CONTROL.

	<i>Actuals intake (2—5 years old).</i>			<i>Actual intake (6—9 years old).</i>		
	<i>I.C.M.R. Allowances.</i>	<i>Experimental (22)</i>	<i>Control (22)</i>	<i>I.C.M.R. allowances.</i>	<i>Experimental (10)</i>	<i>Control (10)</i>
Energy (K cal.) .. .. .	1,470	1,144	945	2,050	1,443	1,126
<i>Nutrients—</i>						
Protein (g) .. .. .	25.7	16	15.0	35.6	28.3	24
Calcium (mg.) .. .. .	400-500	260	180	400-500	158	143
Iron (mg.) .. .. .	20-25	10	8	20-25	17	12
Carotene (mg.) .. .. .	1,100	678	460	1,600	726	355
Thiamine (mg.) .. .. .	0.7	0.7	0.5	1.0	0.91	0.56
Riboflavin (mg.) .. .. .	0.8	0.4	0.2	1.2	0.31	0.32
Niacin (mg.) .. .. .	10	6.6	5	14	13.5	7
Vitamin C (mg.) .. .. .	40	15	10	40	24	13

The weighment survey revealed that the intake of foods for the whole day was less than the allowances recommended by the ICMR (1981) in all cases although the CMNMP supplied more than 1/3 of the requirements. In spite of such a full meal in the feeding centre, the RDA had not been met due to several reasons. Many children came to school without having had any breakfast. Their only complete meal was in the feeding centre or school. Although 25 grams of leafy vegetables was the requirements per child per day in the meal, the evaluation revealed that the children were fed only around 10 g. leafy vegetables. The children in the control group consumed even less, namely, 6 gm. of greens per day. The deficits in the food intake was reflected in their nutrient intake. The consumption of all the nutrients was less than the Recommended Daily Allowances (RDA) of ICMR. It is shocking to note that the food and nutrient consumption of the control group was even less, although they were from families who were better off. The effect of the deficiencies in their diets was seen in their weights and heights and other parameters. Children who were participating in the CMNMP exhibited a better nutritional picture. That the food and nutrient intake of the control was less than that of children in the CMNMP proves that there was no food substitution and that children in CMNMP did not have provision for breakfast and dinner in the homes.

## 2. *Scope for nutrition education :*

### (a) *Nutrition knowledge and food habits of the children:*

Table XI presents the initial and final picture with regard to the nutrition knowledge of the three to five years old children studied in two Child Welfare Centres, both of which were in the CMNMP but one had nutrition education in addition.

TABLE XI

## NUTRITIONAL KNOWLEDGE OF THE CHILDREN

(50 children in each group)

<i>Serial number and knowledge aspect.</i>	<i>Percentage of children stating.</i>			
	<i>Group.</i>	<i>Initial.</i>	<i>Final.</i>	<i>Difference.</i>
(1)	(2)	(3)	(4)	(5)
1 Carrot prevents blindness.	C	8	8	0
	E	10	40	30
2 Greens are essential for good blood circulation.	C	18	16	2
	E	20	60	40
3 Papaya is good for eye sight.	C	4	4	0
	E	8	30	22
4 Foods for good health are ragi kali, greens and milk.	C	8	6	2
	E	12	36	24
5 Nellikai is eaten to prevent bleed- ing gums.	C	14	16	2
	E	12	60	48

C.—Control.

E.—Experimental

Greater awareness of the nutrition messages imparted through nutrition education was noticed among the children after their exposure to the nutrition education programme. Their nutrition knowledge improved greatly when education was given along with the nutritious food, where as, children who were not exposed to nutrition education but consumed food along in the control group were static with regard to their knowledge of nutrition.

The food habits of the children before and after nutrition education are given in Table XII.

TABLE XII.

FOOD HABITS OF THE CHILDREN BEFORE AND AFTER EXPOSURE TO NUTRITION EDUCATION.

(50 children in each group).

Serial number and Food habits.	Group.	Percentage of children following.		
		Initial.	Final.	Difference.
(1)	(2)	(3)	(4)	(5)
1 Washing hands before and after eating.	C	50	50	0
	E	50	100	50
2 Eating the food without spilling.	C	6	6	0
	E	18	36	18
3 Not wasting the vegetables while eating.	C	6	6	0
	E	6	38	32
4 Wasting food ..	C	0	0	0
	E	0	0	0

C.—Control—Children participating in CMNMP but not exposed to nutrition education.

E.—Children exposed to nutrition education and also participating in the CMNMP.

The fact that none of the children in both the group wasted food is encouraging. This was possible because the children were served in small quantities on request. The habit of washing the hand improved for the children in the Nutrition education group. The habit of eating vegetables also improved among them.

These findings show that there is a great scope to improve the nutrition knowledge and food habits of children through nutrition education in the nutritious meal programme.

(b) *Nutrition knowledge of the mothers:*

Table XIII presents the nutrition knowledge of the mothers studied initially and after the programme.



TABLE XIII.

NUTRITION KNOWLEDGE OF THE MOTHERS.

<i>Knowledge aspects.</i>	<i>Marks allotted.</i>	<i>Mean marks gained.</i>			
		<i>Experimental (400).</i>		<i>Control (100).</i>	
		<i>Initial.</i>	<i>Final.</i>	<i>Initial.</i>	<i>Final.</i>
(1)	(2)	(3)	(4)	(5)	(6)
Meaning of nutritious food .. .. .	2	0.59	0.63	0.60	0.57
Name of five nutritious foods .. .. .	5	3.09	3.40	2.70	2.60
Advantages of greens .. .. .	5	2.83	3.16	2.50	2.55
Desirable methods of cooking .. .. .	3	1.12	1.45	1.36	1.42
Ways of conserving nutrients while cooking ..	5	2.06	2.28	1.72	1.80
Total ..	20	9.69	10.92	8.88	8.94

56

NOTE.—Children of the mothers in the experimental group participated in the C.M.N.M.P. and the children of the mothers in the control group did not participate in that programme.

The mean initial scores obtained by the mothers in the two groups were found to be 9.69 and 8.88 out of 20. In the course of the study, an improvement was recorded in the case of the group participating in the nutritious meal programme whereas it was reduced in the control group. The participation of the children in the meal programme had imparted some knowledge to the parents also. Among the five questions asked, two questions namely, naming the nutritious foods and advantages of green leafy vegetables were answered better by the mothers than the other three questions.

3. *Scope of involving rural women's clubs in the feeding programme :*

Table XIV gives extent of participation recorded by the members of the rural women's clubs—Mahalir Manrams in the CMNMP.

TABLE XIV.

PARTICIPATION OF MEMBERS OF RURAL WOMEN'S CLUB IN THE CHIEF MINISTER'S  
NUTRITIOUS MEAL PROGRAMME FOR CHILDREN.

(TOTAL NUMBER OF STUDIED = 100).

Percentage of women's club members participating in the  
five villages.

Activities carried out. (1)					
	V <sub>1</sub> (2)	V <sub>2</sub> (3)	V <sub>3</sub> (4)	V <sub>4</sub> (5)	V <sub>5</sub> (6)
1 Checking the vegetables bought by the nutritious meal organiser .. .. .	85	80	75	80	84
2 Helping in menu planning .. .. .	91	52	90	67	92
3 Helping the Ayah in cooking and serving ..	91	87	90	60	92
4 Supplying drinking water .. .. .	79	80	80	67	85
5 Checking the attendance of children ..	91	66	90	60	84
6 Looking after the kitchen garden .. ..	76	80	85	60	92
7 Checking the cleanliness of the balwadi ..	91	87	90	52	84
8 Supply of firewood .. .. .	50	80	80	30	87
9 Supply of vegetables from their own garden .. .. .	75	54	90	67	92
10 Helping the teacher in buying vegetables ..	37	60	80	54	92

Five villages : V<sub>1</sub> Tholampalayam V<sub>2</sub> Tholampalayam pudur V<sub>3</sub> Kanuvaipalayam  
V Velliangadu V<sub>5</sub> Medur

It was heartening to note that the members of the rural women's clubs could be involved in various types of activities. The participation of the members was highly satisfactory in most of the activities, such as, helping the cook in cooking, serving the lunch, checking the cleanliness of the Balwadi, checking the attendance of the children regularly and helping the Nutritious Meal Organiser in buying vegetables from the weekly market. Their participation was less in some activities, mainly due to their own household duties and commitments. Their new activity proved to be very rewarding for the members. It will be worthwhile if the planners and the policy makers can take advantages of such joint collaborative actions between the Balwadies and the women's clubs and gear their action plans and projects in this direction.

#### 4. *Other impacts :*

##### (a) *Impact on school enrolment:*

Around 2.63 lakh children in the age group 6-10 were additionally enrolled in the schools during 1982-83 and 2.68 lakh children were enrolled additionally during 1983-84 in Tamil Nadu. The CMNMPC has thus helped to attain unprecedented success in the achievement of the important ideal of universalisation of primary education.

##### (b) *Employment generation:*

Employment has been provided to 1,98,990 women in the urban and rural areas with preference given to widows and destitutes. This massive provision of employment opportunities is perhaps the single largest employment programme for the rural areas in Independent India, during the last 35 years. (Government of Tamil Nadu 1984).

Thus the Chief Minister's Nutritious Meal Programme in Tamil Nadu has created a very favourable climate for the education, health, growth and overall well-being of children who are the future citizens of the country. If the present

tempo is maintained, a healthy generation of young people will emerge with health, vigour and great commitment and capacity for work.

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## CHAPTER IV.

OPINION OF THE PARENTS, LOCAL LEADERS,  
TEACHERS AND CHILDREN REGARDING THE  
CMNMP1. *Opinions of the parents :*

An assessment of the feeding programme by the parents is essential because they are the direct judges of the massive endeavour in which the consumers (beneficiaries) are their children. Parents can assess objectively through the physical improvements registered by their children and what they say about the programme. Hence a study was conducted contacting 650 parents in Coimbatore city and the surrounding villages and collecting their views about the CMNMP and the reasons for sending their children to participate in the meals programme. In another study, 456 mothers in Dharmapuri district, 434 mothers in Coimbatore district, 160 mothers in Madurai district, 510 mothers in Ramanathapuram district and 690 mothers from North Arcot district were interviewed and their opinions assessed about the feeding programme, on the basis of their observations on their children. The questionnaire used for this purpose to assess the opinion of the parents is presented in Appendix L.

The reasons given by the parents for sending their children to the Chief Minister's Nutritious Meal Programme are given in Table XV.

TABLE XV.

REASONS FOR SENDING THE CHILDREN TO THE CMNMP  
(Total number of parents interviewed in Coimbatore district-650)

<i>Reasons.</i>	<i>Parent stating.</i>
(1)	(2)
1. Free nutritious food is given .. ..	69
2. Nutritious Meal improves child's health .. ..	58
3. The chance to learn is better .. ..	38
4. It lessens the family's burden .. ..	15
5. Poor families are helped .. ..	14
6. It enables children to mingle with others .. ..	14
7. Develops in children good habits .. ..	8
8. No need for the child to go home in the afternoon .. ..	3

All the parents who gave responses could state more than one reason for sending their children to the nutritious meal programme. They were aware that the meal was nutritious and it was good for the growth of their children. A majority of the parents (69 per cent) sent their children for the programme because the food was free and nutritious. Only one parent could not state any reason for sending the child to school.

Eighty six per cent of the mothers said that the programme was started by the Honourable Chief Minister of Tamil Nadu. Only 33.5 per cent of the mothers had not visited the feeding centre even once. However, 43 per cent of the mothers had visited it several times, 33 per cent twice, 14 per cent three times and six per cent once.

The opinions of the parents regarding the facilities available in the feeding centres are presented in Table XVI.

TABLE XVI.

OPINIONS OF THE PARENTS ABOUT THE FOOD AND THE FACILITIES  
IN THE CENTRE.

	<i>Opinions.</i>					<i>Percent stating.</i>
	(1)					
<i>Types of food—</i>						
Good	..	..	..	..	..	63
Vegetables are not adequate			..	..	..	12
Cooking and taste could be improved further					..	25
<i>Adequacy of food—</i>						
Enough	..	..	..	..	..	96
Not enough	..	..	..	..	..	4

TABLE XVI—*cont.*

OPINIONS OF THE PARENTS ABOUT THE FOOD AND THE FACILITIES  
IN THE CENTRE—*cont.*

	<i>Opinions.</i>					<i>Per cent stating.</i>
<i>Types of food—</i>						
<i>Storage facilities—</i>						
Good	..	..	..	..	..	73
Could be improved	..	..	..	..	..	2
Do not know	..	..	..	..	..	25
<i>Water facilities—</i>						
Good	..	..	..	..	..	90
Should be improved	..	..	..	..	..	10
<i>Dining area—</i>						
Good	..	..	..	..	..	99
Could be improved	..	..	..	..	..	1

In general, the parents appreciated the maintenance of the nutritious meal centres. Only a few had indicated that there was scope for improvement of the cooking procedures and facilities in the centres.

The perception of the beneficiaries was studied by Nagarajan et al (1984) in 12 feeding centres in six villages of Gandhigram service area, at the start of the feeding in 1982 and again in 1984. Two hundred and one mothers as against 196 mothers in the beginning were studied to elicit their immediate response towards the programme. The results are presented in Table XVII.



TABLE XVII.

## RESPONDENT'S OPINION ON THE FOOD SUPPLIED.

<i>Serial number and Nature.</i>	1982		1984	
	<i>Number reported.</i>	<i>Per cent.</i>	<i>Number reported.</i>	<i>Per cent.</i>
(1)	(2)	(3)	(4)	(5)
1 Adequate ..	186	94.9	198	98.9
2 Timely ..	187	95.4	195	97.3
3 Palatable ..	192	98.0	185	92.4
4 Inadequate ..	10	5.1	2	0.9
5 Not on time ..	9	4.6	5	2.4
6 Not palatable ..	4	2.0	16	7.8

A higher percentage of mothers had positively reacted to the adequacy of food in 1984 as compared to 1982. The same pattern of increase followed in the responses on the timely serving of food. As for palatability, around 8 per cent asked for better palatability.

Sri Avinashilingam Home Science College elicited the opinions of 2,250 parents regarding the growth, clinical picture, academic activities, play habits, morbidity levels and activeness of the children after their participation in the CMNMPC. The questionnaire used for this purpose is presented in Appendix M. The results are presented in Table XVIII.

TABLE XVIII

OPINIONS OF PARENTS ABOUT THE BENEFITS OF CMNMP

I *Growth*—

	<i>Height.</i>		<i>Weight.</i>	
	<i>Before</i>	<i>After</i>	<i>Before</i>	<i>After</i>
(1)	(2)	(3)	(4)	(5)
More growth	374	1,289	145	1,507
Less growth	1,187	361	1,337	148
Normal growth	689	600	768	595
Total ..	2,250	2,250	2,250	2,250

II. *Clinical Picture.*—1. *Hair*—

	<i>Before</i>	<i>After</i>
Brown hair .. ..	762	162
More growth of hair .. ..	10	420
Less growth of hair .. ..	560	140
Normal growth of hair .. ..	546	313
Balck hair .. ..	372	1,215
	2,250	2,250

2. *Eyes.*—

Good eye sight .. ..	1,119	1,626
Poor eye sight .. ..	735	334
Photophobia/watery eye .. ..	268	176
Night blindness .. ..	128	114
	2,250	2,250

			<i>Before</i>	<i>After</i>
<b>3. Teeth.—</b>				
Strong/very strong teeth	..	..	1,210	1,522
Stained teeth	..	..	382	120
Bad smelling teeth	..	..	194	80
Clean white teeth	..	..	114	398
Weak teeth	..	..	350	130
			<hr/> 2,250	<hr/> 2,250
<b>4. Gums.—</b>				
Healthy strong gums	..	..	1,426	1,754
Bleeding gums	..	..	655	405
Swelling in gums	..	..	169	91
			<hr/> 2,250	<hr/> 2,250
<b>5. Lips.—</b>				
Lips in good condition	..	..	1,149	1,910
Cracked lips	..	..	346	110
Dry lips	..	..	410	91
Ulcers in lips	..	..	193	69
Swelling in lips	..	..	152	70
			<hr/> 2,250	<hr/> 2,250

	<i>Before</i>	<i>After</i>
<b>6. Skin.—</b>		
Soft and shining skin . . . . .	919	1,889
Cracked/wrinkled skin . . . . .	718	82
Eczema/ulcers present . . . . .	388	118
Normal skin . . . . .	225	161
	<hr/> 2,250	<hr/> 2,250
<b>7. Hands.—</b>		
Thin/less growth of hands .. ..	1,302	290
Normal/good growth of hands .. ..	948	1,960
	<hr/> 2,250	<hr/> 2,250
<b>8. Legs.—</b>		
Thin/Less growth of legs .. ..	1,522	204
Normal/Good growth of legs .. ..	619	1,910
Unable to walk .. ..	109	136
	<hr/> 2,250	<hr/> 2,250
<b>III. Academic activities.—</b>		
<b>1. Desire to go to school .....</b>		
Yes .. ..	959	1,796
No .. ..	1,291	454
	<hr/> 2,250	<hr/> 2,250

				<i>Before</i>	<i>After</i>
<b>2. Writing.—</b>					
Writing well	..	..	..	606	1,174
Writing fast	..	..	..	136	602
Writing slowly	..	..	..	916	164
No desire to write	..	..	..	592	310
				<hr/> 2,250	<hr/> 2,250
<b>3. Reading.—</b>					
Reading well	..	..	..	507	569
Reading normally	..	..	..	1,189	1,294
No desire to read	..	..	..	554	387
				<hr/> 2,250	<hr/> 2,250
<b>4. Memory Power.—</b>					
Good memory power	..	..	..	1,146	1,549
Normal memory power	..	..	..	605	560
More forgetfulness	..	..	..	499	141
				<hr/> 2,250	<hr/> 2,250
<b>5. Singing.—</b>					
Singing well	..	..	..	459	1,333
Singing normally	..	..	..	754	584
Not singing/Shyness to sing	..	..	..	1,037	333
				<hr/> 2,250	<hr/> 2,250

*Before*                      *After*

6. *Going to school continuously.*—

Yes .. .. .	1,392		1,902
No .. .. .	858		348
	2,250		2,250

IV. *Playing habits.*—

1. *Mingling habit.*—

Mingles very nicely with other children.	1,913		2,027
Does not mingle with others ..	337		223
	2,250		2,250

2. *Friendliness.*—

Very friendly .. .. .	1,703		1,953
Not friendly with others .. ..	547		297
	2,250		2,250

3. *Happiness.*—

Plays happily .. .. .	1,671		1,943
Does not play happily .. .. .	579		307
	2,250		2,250

V. *Morbidity.*—

1. *Cold*—

Yes* .. .. .	1,428		492
No .. .. .	822		1,758
	2,250		2,250

	<i>Before</i>	<i>After</i>
<b>2. Fever—</b>		
Yes* .. .. .	1,138	562
No .. .. .	1,112	1,688
	<hr/> 2,250	<hr/> 2,250
<b>3. Cough—</b>		
Yes* .. .. .	1,388	666
No .. .. .	862	1,584
	<hr/> 2,250	<hr/> 2,250
<b>4. Chickenpox measles—</b>		
Yes* .. .. .	436	303
No .. .. .	1,814	1,947
	<hr/> 2,250	<hr/> 2,250
<b>5. Diarrhoea—</b>		
Yes* .. .. .	1,382	550
No .. .. .	868	1,700
	<hr/> 2,250	<hr/> 2,250
<b>6. Ulcers—</b>		
Yes* .. .. .	903	492
No .. .. .	1,347	1,758
	<hr/> 2,250	<hr/> 2,250

	<i>Before</i>	<i>After</i>
<i>7. Eye diseases—</i>		
Yes* .. .. .	726	422
No .. .. .	1,524	1,828
	<hr/> 2,250	<hr/> 2,250
<i>VI. Activeness—</i>		
<i>1. Enthusiastic—</i>		
Yes .. .. .	1,062	1,550
No/Laziness .. .. .	1,188	700
	<hr/> 2,250	<hr/> 2,250
<i>2. Helping in work at home—</i>		
Helps well .. .. .	1,195	1,539
Does not help .. .. .	1,055	711
	<hr/> 2,250	<hr/> 2,250

\* *Frequent occurrences.*

Of the 2,250 parents interviewed 1,507 parents stated that the heights and weights of their children had improved rapidly after they had started participating in the CMNMP. Prior to that more than 50 per cent of the children either had brown hair or poor growth of hair. After participation in CMNMP except among 302 children, all the others had shown normal|more growth of black hair. Poor eye sight, night blindness or watery eyes were present previously in 1,131 children. The number of children with these conditions was reduced to 634 after their participation. At the beginning only 1,210 children had strong teeth. Weak and bad



smelling teeth, bleeding and swelling gums and dry and cracked lips were reported in others by the mothers. After participating in the CMNMPC more than 1,500 children had healthy teeth, gums and lips. This must be due to the influence of food as well as the insistence and education by the teachers regarding dental hygiene and health habits. Improved conditions of the skin and better growth and functioning of the limbs were also observed in their children by the mothers as the outcomes of their participation in the CMNMP.

Better health paves the way for better education and social behaviour. Good food attracted more children to school. The number of children with the desire to go to school increased from 959 to 1,796 after their participation in the CMNMP and they also showed greater desire to read, write, sing and play, Their performance had also improved in these activities.

The mothers reported frequent occurrences of cold, fever and cough in more than 50 per cent of children before the starting of the CMNMPC. The number of such occurrences was reduced to less than 25 per cent after their participation in the CMNMP. The same trend was noticed regarding measles| chicken pox, diarrhoea and eye diseases.

The mothers expressed that better health had made their children more active and lively. The number of children who were lazy or inactive was reduced to 700 from 1,188 after their participation in the Nutritious Meal Programme.

It is envisaged that in the long run, the Nutritious Meal Programme would lead to healthier and happier children, in the entire State of Tamil Nadu.

## *2. Views of local leaders and the teachers:*

From 20 villages around Coimbatore, 100 local leaders were identified and interviewed to elicit their opinion regarding children's participation in the CMNMPC, benefits, if any, accruing therefrom and the help rendered by them. Their views are presented in Table XIX.

TABLE XIX.

HELP RENDERED BY THE LOCAL LEADERS.  
(No. studied 100)

<i>Serial number.</i>	<i>Help rendered.</i>	<i>Percent stating.</i>
1	Supervision of cooking and serving food and giving suggestions.	100
2	Help in terms of materials and cash—	
	(a) Cash donations .. .. .	15
	(b) Construction of kitchen shed .. ..	3
	(c) Water drums .. .. .	2
	(d) Donation of vegetables .. .. .	2
	(e) Chulah construction .. .. .	1
	(f) Donation of oil can .. .. .	1

All the leaders evinced interest in the programme. The potential available in the local people is evident. If they are tapped properly, more constructive assistance could be obtained. While 65 per cent mentioned about the existence of the local management committee, 55 per cent stated that they were the members of those committees. While 61 per cent visited the centres once a month, others visited the centres once a week and helped in the supervision and in serving of the food.

A large majority, 95 per cent, were satisfied with the feeding programme with regard to serving of the food; and 70 to 75 per cent were satisfied with the facilities available for cooking and dining.

*Problems encountered:*

The problems in the conduct of the feeding programme as viewed by these 100 Local Leaders and 50 Child Welfare organisers (Balasevikas) surveyed are presented in Table XX.

TABLE XX.

## PROBLEMS IN THE CONDUCT OF THE FEEDING PROGRAMME.

<i>Serial number.</i>	<i>Problems.</i>	<i>Percent stating.</i>
Views of leaders :		
1	Lack of storage facilities .. .. .	50
2	Lack of proper kitchen .. .. .	35
3	Lack of proper building .. .. .	15
4	Traffic problem .. .. .	5
Views of Child Welfare Organisers :		
1	Maintenance of records .. .. .	80
2	Difficulty in maintaining the Pre-school (teaching) as well as feeding programme.	70
3	Children are not attending the school after lunch.	70
4	Supply of commodities during odd hours ..	62
5	Lack of space for receiving commodities ..	62
6	There is no weighing scale to measure oil and other foods.	50
7	Politicians' interference .. .. .	50
8	Lack of toys and equipments in the pre-school	50
9	Lack of storage facilities .. .. .	36
10	No place for class room .. .. .	16

The problems observed by the leaders were mainly concerned with physical facilities and safety of the children. All the Child Welfare Organisers (Balasevikas) wanted more pay. Maintenance of too many records was their biggest problem. They also asked for convenient kitchen and storage facilities and better timings and arrangements for receiving

the supplies of food commodities. The Government of Tamil Nadu has already started remedial measures to remove these problems.

Table XXI gives the suggestions given by the local leaders for improving the programme.

TABLE XXI.

SUGGESTIONS GIVEN BY THE LOCAL LEADERS FOR IMPROVEMENT.

(Number studied 100.)

<i>Serial number and suggestions.</i>	<i>Per cent stating (No. 100).</i>
(1)	(2)
<b>A. To the Government —</b>	
1. Improve the physical facilities . . . . .	70
2. Appoint one more assistant for teaching . . . . .	55
3. Enhance the salary of the staff . . . . .	55
4. Provide own building to the centres . . . . .	23
<b>B. To the Balasevikas—</b>	
1. Be sincere and honest . . . . .	85
2. Co-operate with the Government . . . . .	65
3. Understand and respect the community . . . . .	45
<b>C. To the Community—</b>	
1. Help the pre-school teacher . . . . .	100
2. Motivate parents to send their children regularly . . . . .	29
3. <i>Views of the participating children:</i>	

One thousand children participating in the feeding programme were interviewed to elicit their views on the nutritious meal programme (Appendix N). Their responses revealed that the food given was adequate. When the reasons for

their attending the meal programme were asked all the children mentioned that the free food given every day in the school was the reason. Forty-one per cent of the rural children and 98 per cent of the urban children said that they were interested in attending the school to learn; ten per cent of the rural and 54 per cent of the urban children were attracted through the facilities to play with peer groups. Thirty-six per cent of the urban children told that they attended the nutritious meal programme because of the insistence of their parents. Only nine per cent of the rural children and 10 per cent of the urban children were willing to come to the Balwadi if the nutritious meal programme was stopped.

In general, the views expressed by the different categories of people were encouraging regarding the conduct of the programme, facilities available and the benefits resulting in that they revealed a great deal of involvement and interest in the programme and the welfare of the children.

#### *Reference*

Nagarajan, B. S., Narayanaswamy, N. and Dhandapani, R., (1984) Noon Meal Centres Revisited—A Resume Prepared by Gandhigram Rural Institute, Gandhigram, Tamil Nadu.

## CHAPTER V

*Research Undertaken on the Nutritious Meal Programme.*

Developmental programmes can grow only when the whole society develops a scientific approach, to evaluate the programmes, locate the loopholes and seek solutions. This is particularly important in our country, where the use of science and technology is beset with formidable obstacles such as poverty, superstitions and customs. Under these circumstances the intervention programmes can grow only on a foundation of sound education and require people who can absorb, adapt and use it. For this purpose research should be given a highest place in all the programmes including the Nutritious Meal Programme.

Several short term researches towards evaluating the Nutritious Meal Programme have been carried out by the faculty and the post-graduate students of Sri Avinashilingam Home Science College. The researches so far carried out are as follows :—

1. Estimation of thiamine, riboflavin, niacin and ascorbic acid in the lunch provided under Chief Minister's Nutritious Meal Programme.
2. Management of the Chief Minister's Nutritious Meal Programme for children in selected pre-schools.
3. A study on the nutritional benefits of the Chief Minister's Nutritious Meal Programme on children.
4. Managerial aspects of the Chief Minister's Nutritious Meal Programme.
5. Impact of Chief Minister's Nutritious Meal Programme on pre-school children.
6. Impact of Nutritious Meal Programme on the nutritional status of pre-school children.

7. Impact of Nutritious Meal Programme on the nutritional status of the pre-school going children.
8. Study on functioning of the Chief Minister's Nutritious Meal Programme for children in the age group of 5 to 9 years.
9. A study of functioning of the Chief Minister's Meal Programme in selected villages of Coimbatore District.
10. Designing and evaluating a solar cooker for the Nutritious Meal Programme.
11. Impact of Chief Minister's Nutritious Meal Programme on the cognitive development of children.
12. A study of the Chief Minister's Nutritious Meal Programme in selected village of Karamadai Block.
13. Motivating women's clubs to participate in Chief Minister's Nutritious Meal Scheme of Government of Tamil Nadu.
14. Nutritious Meal Programme--A case study.

Research should be retained as a part and parcel of the Nutritious Meal Programme in Tamil Nadu. Longitudinal records on the growth pattern of all the children should be maintained throughout the state and the data should be processed centrally. Research on the bioavailability of nutrients from the meal programme, cost effectiveness of the programme, socio cultural impact of the programme, changes in the cooking practices of the mothers and food habits of the family members, nutrition knowledge of the beneficiaries and their mothers, etc., need to be studied further and the programme must be strengthened.

## CHAPTER VI

*Conclusion*

The Chief Minister's Nutritious Meal Programme has created a very favourable climate for the education, health, growth and overall well being of the children, who are the future citizens of the country. It is a tribute to the human values the Chief Minister possesses and practises. Those who remark that it is a waste or foolish venture at the cost of the development of the state are only mocking at themselves—because this programme is a wise investment in human resources development, which is essential for national development. The results of the studies carried out so far show that if the present tempo is maintained, a healthy generation of young people will emerge with commitment and capacity for work.

The Child Welfare Centres today stand out as harbingers of the new social order which we seek to bring about in the country. Through this CMNMP, children, irrespective of their caste and religion learn to move and mingle together, eat, play and learn together, thus equipping themselves from a very early age to be true citizens of India transcending all differences and divisions. Watching closely all the beneficial effects of the programme, the state Government has extended this feeding programme to 10-15 year old children from 1984, September 15 onwards. At this juncture, it is needless to express that the co-operation and whole hearted support from the public is very essential for the successful growth of this venture. The concern, conviction and competence of the teachers and the organisers are equally essential to realise the goal.

The evaluations carried out so far have revealed that the programme needs to be strengthened with regard to physical facilities, assistance and incentives for the workers, nutrition education of the parents, community and the beneficiaries,



involvement of leaders and nutritional assessment of the participating children. A full proof system of built-in evaluation must be created so that periodical compilation of the observations would help the Government to evaluate the outcomes of the heavy investment it is making, in feeding and educating the poor.

## APPENDIX A

## GOVERNMENT OF TAMIL NADU

## Abstract

New Programme of feeding the poor children 5 plus to 9 plus  
in Tamil Nadu in Schools—Sanctioned.

G.O. No. 857, Public (T.P.E.P.), 28th May 1982.

(Midday Meal G.O. No. 1)

READ—

From the Director of School Education, Madras, letter  
No. 98085 SM6|82, dated 11th May 1982.

*ORDER.*

The Government, while presenting the Budget. for the year 1982-83, have announced that a scheme would be launched to supply free nutritious noon meal to the poor children of Tamil Nadu from 1st July 1982. This scheme will cover the children in the age-group 2 to 10.

2. According to the new scheme, it is estimated that the total number of children that will have to be fed under the age group 5 plus to 9 plus will be about 38.15 lakhs. Government have decided that the children of age-group 5 plus to 9 plus covered by this scheme will be fed in schools. The Director of School Education and other heads of departments concerned will issue detailed instructions on the operations of the scheme immediately on receipt of guidelines from Government. As regards the children in the age-group 2 plus to 4 plus orders are being issued separately.

3. The existing feeding programme for the School Children under the age group 10-14, who will not be covered by the new programme, will continue to operate in Elementary Schools under the School Education Department in the old pattern and such children will be fed for 200 days in a year

as usual, while the new feeding programme which will cover children of 5 plus to 9 plus in Schools will operate throughout the year.

From 1st July, 1982, a nutritious noon-meal, free of cost, should be supplied to all the poor children in the age-group 5 plus to 9 plus studying in the Schools on all the days in the year. About 25,000 Schools in non-central kitchen areas, about 8,000 Schools in Central Kitchen areas and about 3,000 schools under Adi-Dravidar and Backward Class Departments will be implementing the Scheme. The ingredients of the nutritious meal should contain the following:

(1) Rice	.. .. .	100 Gms.
(2) Oil	.. .. .	7 Gms.
(3) Dhall	.. .. .	15 Gms.
(4) Condiments and vegetables	.. .. .	50 Gms.

The cost of a meal exclusive of other incidental charges will be 45 paise. In the Non-Central Kitchen areas, sanction is accorded for incurring the following administrative expenditure by each of the schools (centres) :—

(1) (a) One part-time Cook at the rate of Rs. 2 per day of attendance for all the days of the month.

(b) If the number fed is more than 500, one additional cook may be employed at the same rate of Rs. 2 per day wherever necessary. It is estimated that there may be 2,500 centres needing this facility.

(2) One Helper to assist the Cook and to clean the vessels at the rate of Re. 1 per day for all the days of the month.

(3) Contingent expenditure at the rate of Rs. 20 per month per school if the number of children is 500 or less and Rs. 30 per month per school if the number of children exceeds 500.

These employees will be appointed from among the local residents.

(4) The accounts of the Mid-day Meals Centres under the School Education Department including Panchayat Union Schools will be audited by the Deputy Inspectors of Schools which will be monitored by the Audit Wing of the School Education Department; the District Educational Officers will be the authorities for releasing the grants and monitoring the schemes at Education District level and the Chief Educational Officers will be the monitoring authorities at Revenue District levels. Similar arrangements will be made by the Adi-Dravidar Welfare and Backward Class Welfare Departments.

(5) In Central Kitchen areas the Superintendents can spend upto 45 paise per meal (food charges alone) to make the meal nutritious as mentioned in paragraph 3 above. The administrative charge of 5 paise per meal will be drawn by the Directorate of School Education who will apportion the amount in accordance with the norms already laid down; to the concerned District Educational Officers according to the need of each locality.

(6) The capacity of the Central Kitchens will be increased to the extent possible. If in the present Central Kitchens additional number of children to be fed cannot be covered, individual centres may be opened in Schools wherever necessary by the Director of School Education and grant released in the Non-Central Kitchen pattern by the District Educational Officers.

(7) For implementing the new scheme, the following additional staff is sanctioned for Central Kitchen areas under the Department of School Education.

For Central Kitchens :

(1) Cooks.—Rs. 250—5—330—10—400| 97 (one each for 97 Central Kitchens).

(2) One Additional Helper per kitchen for 97 Central Kitchens, to be paid from the Contingencies according to the prevailing market rate to help the Cook to clean the cooking vessels daily.

8. For strengthening the administrative set up for implementing the New Meals Scheme, sanction is also accorded for the creation of the following additional staff in the offices noted below :

I. OFFICE OF THE DIRECTOR OF SCHOOL EDUCATION.

<i>Post.</i>	<i>Scale of Pay.</i>	<i>Number of Posts.</i>
(1)	(2)	(3)
1 Senior Accounts Officer ..	750—50—1,350 .. .. .	One.
2 Headquarters Educational Officer (Midday Meals) (D.E.O's Rank) .. .. .	750—50—1,350 .. .. .	One.
3 Basic servants .. .. .	250—5—330—10—400] .. .. .	Three (two for Senior Accounts Officer and one for Headquarters Education Officer).
4 Superintendents .. .. .	525—25—675—30—855—35—925 .. .. .	Three
5 Assistants .. .. .	400—15—490—20—650—25—700 .. .. .	Six
6 Junior Assistants .. .. .	350—10—420—15—600 .. .. .	Three
7 Steno-typists .. .. .	350—10—420—15—600—Plus Special Pay .. .. .	One
8 Typists .. .. .	350—10—420—15—600—Plus Special Pay .. .. .	Two
9 Basic servants .. .. .	250—5—330—10—400 .. .. .	Two

## II. DEPARTMENT OF SCHOOL EDUCATION.

Field Officers for School Meals Programme	.. ..	750—50—1,350	.. .. ..	.. ..	Five (Pudukottai, Erode, Nilgiris, Chingleput and Dharmapuri districts)
Accountants	-- --	400—15—490—20—650—25—700.	-- --	-- --	Fifty one. (At the rate of one post to each of the District Educational Officers).

9. Sanction is also accorded for the purchase of two Tamil Typewriters in the Office of the Director of School Education. The Director of Stationery and Printing is requested to take immediate steps for supply of typewriters for the above office. The typewriters should be placed under the control of qualified typists and should be returned to the Director of Stationery and Printing when no longer required.

10. Sanction is also accorded for incurring a non-recurring expenditure of Rs. 3.81 crores at the rate of Rs. 10 per child towards the purchase of plates, tumblers, cooking vessels and putting up of temporary shed or enclosure, etc., for feeding 38.15 lakhs children. This expenditure should be incurred after following the usual procedures. To the extent that these articles are received as donation from members of the public, the expenditure should be restricted.

11. The Financial Controller of the Directorate of School Education with the aid of the Senior Accounts Officer working in the Directorate of School Education for this purpose will control the expenditure sanctioned to the new scheme. The Director of School Education will be the Chief Monitor of the scheme in so far as feeding in schools under the Education Department is concerned.

12. Regarding the utilisation of CARE Commodities, the Government will issue further instructions in consultation with CARE.

13. This new pattern of Free Meals Scheme to be implemented in the Education Department will equally be applicable to the Mid-day Meals Scheme run by the Departments of Adi-Dravidar and Tribal Welfare, Backward Classes and to Municipal Corporations, wherever they are in operation and each Departmental head will be the controlling authority and monitor for their Departments as the Special Officers will be for the Municipal Corporations. Orders regarding sanction of staff, etc., for these Departments and local bodies will be issued separately.

14. The expenditure sanctioned above may be debited to the Head of Account. 77. A. Primary Education—A.E. Other Expenditure—Schemes in the Sixth Five-Year Plan-II. State Plan—JQ. New Programme of Feeding of Poor Children 5 plus to 9 plus Tamil Nadu Schools.

15. The expenditure is on a new service and the approval of the Legislature will be obtained in due course. Pending approval of the legislature, the expenditure will be met by an advance from the contingency fund orders on which will be issued by the Finance (BG) Department. The Director of School Education and other concerned Heads of Departments should apply to Government in the Finance Department in the prescribed proforma early for the sanction of an advance from the Contingency Fund so far it relates to their departments.

16. This order issues with the concurrence of the Finance Department *Vide* U.O. No. 653-A JS|(B)|82, dated 26th May 1982.

(By order of the Governor)

**K. DIRAVIAM,**  
*Chief Secretary to Government.*



## APPENDIX B:

## GOVERNMENT OF TAMIL NADU.

*Abstract.*

New programme of feeding the poor children of age group 5 plus to 9 plus in Tamil Nadu in Schools—Further instructions—Issued.

EDUCATION, SCIENCE AND TECHNOLOGY  
DEPARTMENT.

(G.O. Ms. No. 1100, *Education, Science and Technology Department, dated 3rd June 1982.*)

*Read :—*

G.O. No. 857, Public (T.P.E.P.) Department, dated 28th May 1982—Mid-day Meal G.O. No. 1.

From the Director of School Education, D.O. Letter No. 98085|SM 6|82, dated 1st June 1982.

## ORDER :

In continuation of para 2 of the G.O. read above the Government approve of the appended guidelines suggested by the Director of School Education for the operation of the "New Programme of feeding the poor children of age group 5 plus to 9 plus in Tamil Nadu in schools".

2. It was indicated in the G.O. cited that the cost of a meal, exclusive of other incidental charges will be 45 paise. Out of this 45 paise, 34 paise represents the cost of rice, dhal and oil which will be supplied to the Mid-day Meal centres at their doors by the Tamil Nadu Civil Supplies Corporation or the co-operative Institutions. The first supplies will be for the requirements of 30 days. Thereafter regular supplies will be made once in 15 days. Thus, each centre will be having 15 days buffer stock always. The balance of 11 paise represents the expenditure on condiments, vegetables and firewood.

3. The Government sanction the payment to the Mid-day Meal Centres (not served by central kitchens) by the District Educational Officers of an advance grant calculated at 11 paise per child per day for all the days in the year to cover the expenditure on condiments, vegetables and firewood. Sanction for the payment of the wages to the part-time cook and helper and for contingent expenditure has already been accorded in the G.O. read above. The Government have specifically authorised the release of advance grants every quarter to the said Mid-day Meal Centres to cover the above items of expenditure and this will also be released by the District Educational Officers.

4. Out of the additional posts sanctioned in the G.O. cited, all the posts in the Directorate of School Education and the posts of Field Officers and Accountants in the offices of the District Educational Officers shall be filled up immediately while the posts in the School Meal centres and in central kitchens may be filled up only with effect from 25th June 1982 to take advance action to launch the scheme on 1st July 1982.

5. It has been ordered in G.O. No. 857, dated 28th May 1982 that the expenditure on the New Scheme will be debited to the head of account "277. Edn.—A. Primary Education—A.E. Other Expenditure—Schemes in the Sixth Five Year Plan-II. State Plan-JQ. New Programme of Feeding of poor children of age group 5 plus to 9 plus in Tamil Nadu Schools". A provision of the order of Rs. 5 ½ crores has already been made in the Budget Estimate, 1982-83 under "277. A. Primary Education — A.E. Other Expenditure A-I. Non-Plan—A.E. Mid-day Meals in Elementary Schools—Non-Central Kitchen areas" and A.G. Mid-day Meals in Elementary Schools—Central Kitchen areas". Out of the above provision, the amount required to meet the cost of feeding pupils of age group 10 to 14 (under the existing

programme) shall be retained and the remaining amount transferred by re-appropriation to the new head opened above.

6. The Government generally approve of the 'Action Points' suggested by the Director of School Education for immediate action, in his letter cited. The Director is requested to take further action accordingly. The Director is also requested to print a hand book containing all the relevant G.Os. and instructions, for supply to the Inspecting Officers and to all Mid-day Meal Centres. The Works Manager, Government Press, Madras-1 is requested to attend to the printing of this work immediately and supply the number of copies indented by the Director, giving top most priority to this work.

7. This order issues with the concurrence of the Finance Department vide its U.O. No. 692-A|J.S. (P)|82, dated 2nd June 1982.

(By order of the Governor)

K. DIRAVIAM,  
*Chief Secretary to Government.*

## APPENDIX.

**New scheme for the supply of free nutritious noon meal to the children of the age group 5 plus to 9 plus in schools in Tamil Nadu—Guidelines.**

1. *Title.*—This scheme shall be called “The New Scheme for the supply of free nutritious noon meal to the pupils of age group 5 plus to 9 plus in schools”.

2. *Date of coming into force.*—The scheme will come into force from 1st July 1982.

3. *Definition.*—In this scheme, the term “schools” shall refer to all schools in Tamil Nadu recognised by the Department of School Education, including Anglo-Indian Schools and Matriculation schools (High Schools and Higher Secondary Schools with standards 5 and lower shall also be covered).

4. *Object.*—The object of the scheme is to provide nutritious noon meal free of cost to the poor children, i.e., those below the “Poverty Line”, studying in schools in the age group of 5 plus to 9 plus. All children studying in schools who have not completed the age of 10 as on First June of an academic year shall be eligible to be fed under this programme. (Illustration : During 1982-83, the pupils who were born on or after 1st June 1973 shall be eligible to be fed). By and large, the beneficiaries will be studying in Standards 1—5 but a few who got admission in Standards 2 and above with age exemption may be studying in Standard 6 or 7 also but will nevertheless be covered under the scheme.

5. *Scope.*—The scheme will be implemented in all schools where poor children of the age group 5 plus to 9 plus are studying.

6. *Administration of the scheme.*—

(1) The District Collector as the head of the District will be in overall charge of the free nutritious noon meal programme in the Revenue district. The Chief Educational

Officer and District Educational Officers will, therefore take his guidance wherever necessary in implementing the school feeding programme for the children of the age group 5 plus to 9 plus. The Education Department authorities will ensure that the guidance and instructions of the Collector are followed scrupulously.

(2) The Director of School Education as the Chief monitoring authority will review the scheme periodically and issue instructions, whenever necessary.

(3) The Scheme will be administered by the teachers and officials of the School Education Department. Each Centre will be guided by a Local Advisory Committee called "Local School Meal Advisory Committee". The Headmaster will be the Member-Secretary.

7. *Composition of 'Local Meal Advisory Committee'.*—There shall be an Advisory Committee functioning at each school meal centre situated in areas not served by Central kitchens. There will be no such Committees in areas served by Central Kitchen ; but in such portions of Central Kitchen areas as are covered by individual centres, with reference to para 6 of G.O. Ms. No. 857, Public, dated 28th May 1982, the Committee shall be constituted. This Committee will have ten members from among parents and service-minded people of the locality. Due representation may be given to women and weaker sections also. The Constitution of the Committee will be approved by the Deputy Inspector of Schools on the recommendations of the Headmaster or Headmasters.

(i) *Chairman.*—The Panchayat President will be the ex-officio Chairman of this Committee. Till such time as the Panchayat President assumes office, the Committee members will elect one among them (except the Member-Secretary) as Chairman.

(ii) *Secretary.*—The Headmaster of the School will be the Member-Secretary. He will be responsible for the maintenance of the accounts and the day to day running of

the Centre. If two or more schools are clubbed into a common centre, the Headmaster of the main school will be the Secretary and the Headmasters of the other schools will be the Joint Secretaries of the Committee. The Joint Secretaries are responsible for receipt and distribution of the Mid-day Meals in their schools.

8. In the Centres served by the Central Kitchens, the overall responsibility for the receipt and distribution of the food in a hygienic manner shall vest with the Headmaster who will attend to the duty himself or entrust it to one or more of the teachers (who will of course function under the guidance of the Headmaster).

9. The functions of the Secretary, Local School Meal Advisory Committee will be as follows:—

(a) To arrange for the preparation and distribution of meals and for the proper custody of money and materials received ;

(b) To select the pupils to be provided with meals ;

(c) To appoint part-time cook and helper (with reference to the following approved norms)—namely:—

(1) (i) One part-time cook at the rate of Rs. 2 per day of work for all the days of the month.

(ii) If the number fed is more than 500, one additional cook may be employed at the same rate of Rs. 2 per day wherever necessary. It is estimated that there may be 2,500 centres needing this facility.

(2) One helper to assist the cook and to clean the vessels at the rate of Re. 1 per day for all the days of work.

The cook and the helper shall be from the locality. Preference shall be given to women, and among them to widows. The age-limit will be 30-45, with a relaxation of five

years in the case of widows. The Secretary shall supervise their work. Since these are part-time jobs, the Employment Exchange need not be consulted.

To collect and receive the materials required for the efficient supply of nutritious meals ;

The Committee may meet as often as necessary (at least once a month) to advise the Secretary on the above matters. The Committee members will also oversee these items of work.

10. *Recognition.*—All Midday Meal Centres enjoying recognition of the Department so far will continue to enjoy the recognition under the new scheme also. New centres will be started wherever necessary. Recognition to these new centres will be granted by the concerned Deputy Inspector of Schools.

11. *Operation of the scheme.*—(a) *Selection of pupils.*—The number of pupils to be provided with noon meal will be fixed by the “Local School Meal Committee” with reference to the needs of the locality. All poor children studying in the school who need the meal and who come under the “Poverty Line” in the age-limits fixed should be enrolled under the scheme. Once a non-enrolled child comes to the school for the noon meal, the child should first be admitted as a student and then only to the Meal Scheme.

(b) *Composition of the meal.*—The meal will ordinarily consist of—

(i) Rice	100 gms.
(ii) Oil	7 gms.
(iii) Dhall	15 gms.
(iv) Condiments and vegetables	50 gms.

The Advisory Committee should endeavour its best to serve nutritious food as per the guidelines issued from time to time by the School Education Department.

(c) *Preparation and services.*—The Secretary, with the help of the Advisory Committee, will make arrangements for the supply of the meal in a hygienic manner. The services of willing Local Scouts, Guides and National Cadet Corps and National Service Scheme volunteers may be utilised wherever possible. The cooked food shall be consumed, free of cost, every day first by the persons preparing it. The Headmaster or the teacher supervising the cooking is also invited to join daily the lunch along with the children, free of cost to ensure comradeship and quality food. The Secretary will maintain weight charts etc. of the children coming under the scheme to study the beneficial effects periodically.

(d) *Expenditure on the scheme.*—The Government have already sanctioned a non-recurring expenditure of Rs. 3.81 crores in all, which was worked out on the following average notional costing per child:—

	RS.
(i) Additional utensils and containers for storing rice, dhal and oil and ovens.	3
(ii) Cost of separate shed for cooking ..	3
(iii) Cost of one tumbler and one plate ..	4
	—
	10
	—

At the above rates, an expenditure of up to Rs. 10 per child in each centre may be incurred by the Secretary of the Advisory Committee who can, however, vary the proportion of expenditure on items (i) to (iii) above as per the actual local needs. For example, in a centre with adequate accommodation, the amount meant for the shed can be spent on utensils and plates and tumblers if that is found necessary. The following guidelines shall be followed by the Secretary when incurring expenditure on the above items.



Plates, tumblers and utensils—They shall be purchased from the nearest unit of TANSI. If they are not available with TANSI units, purchase may be made from the nearest Super Market or Co-operative institution. If these utensils, tumblers, plates, etc., are not available in any of these institutions, they should be purchased after getting three or more quotations, and with the approval of the Deputy Inspector of Schools. No departmental permission is necessary if the purchase is made from TANSI or from Co-operative institutions or from any Government agency.

*Cooking shed.*—The Secretary should get quotations (including cost of labour and materials) and get them approved by the District Educational Officer and then take up construction. The above facility will be necessary only in places where accommodation is not available. It is a known fact that many schools have already got separate sheds for cooking and adequate vessels for the preparation of meals. In such schools, this expenditure will not be necessary.

Towards the recurring expenditure on the scheme, Government have made arrangements to issue rice, dhal and oil at the Centre through the Tamil Nadu Civil Supplies Corporation and the lead Co-operative Societies. The Secretaries will have to buy condiments, vegetables and firewood on proper vouchers. They will have to meet the expenditure on the Cook and the Helper and grants for these purposes will be paid by the District Educational Officers in time.

12. Grants to Midday Meals Centres not served by Central Kitchens—

(a) *Amount of rate of grant.*—With effect from 1st July 1982 every school meal centre (not served by Central Kitchens) will be paid an advance grant calculated as follows:—

(i) Grant at the rate of 11 paise per child per day to cover the expenditure on condiments, vegetables, and firewood (condiments and vegetables 8 paise and firewood 3 paise).

(ii) Grant of Rs. 90 per month towards the wages of Cook and Helper at the rate of Rs. 2 and Re. 1 per day respectively. (Rs. 150 per mensem in the case of centres feeding more than 500 which have 2 cooks each and a helper).

(iii) Contingent expenditure towards cost of account books, transport, soap, etc., at the rate of Rs. 20 or Rs. 30 per school according as the centre has a strength of up to 500 or more than 500.

(b) *Sanctioning authority.*—The District Educational Officer shall be the authority to sanction the above advance grant quarterly under these rules regularly to the Secretaries of Midday Meal Centres.

(c) *Recommending authority.*—The Deputy Inspector of Schools will be the recommending authority for the sanction of advance grant for the Centres in his jurisdiction.

(d) *To whom payable.*—The advance grant shall be paid to the Secretaries of the Midday Meals Centres by the District Educational Officer. He will pay through bank draft to the Secretaries in non-Panchayat Union Area. The grant meant for the Secretaries of all centres in a Panchayat Union area will be sanctioned to the concerned Assistant Educational Officer in one lump-sum. The Assistant Educational Officer will credit it to his P.D. account and then disburse the amount to the individual Secretaries through separate cheques. The District Educational Officer will in either case send copies of sanction orders to the Deputy Inspector of Schools.

On receipt of the grant, the Secretary shall deposit it in a Post Office Savings Bank Account or in any local branch of a Nationalised Bank, Co-operative Bank or Scheduled Bank. He will draw the funds according to the needs of the centre.

(e) *Procedure for the sanction of grant.*—The grant may be sanctioned in advance for each of the four quarters namely the quarters ending 31st March, 30th June, 30th September and 31st December.

Application for the payment of advance grant should be submitted by the Secretary of the Centre to the Deputy Inspector of Schools so as to reach him on or before 10th of the month preceeding the quarter for which the grant is claimed. (For example, application for the payment of advance grant for the quarter January-March should reach the Deputy Inspector of Schools on 10th December of the previous year).

The Deputy Inspector of Schools should scrutinise the application with reference to the strength and also the probable expenditure on the running of the Centre and recommend the grant to the District Educational Officer and his recommendation should reach the District Educational Officer before the 20th of the same month. The District Educational Officer should immediately sanction the grant and see that the amount is received by the Secretary of the Centre on the first of the quarter for which the grant is due. The grant paid in advance for a quarter shall be adjusted before sanctioning the grant for the quarter succeeding the next quarter.

13. *Registers to be maintained.*—The Secretary will maintain the following Registers :—

- (a) Register of pupils selected for the provision of School meals ;
- (b) Daily attendance Register of the pupils fed ;
- (c) Cash book ;
- (d) Receipt book ;
- (e) Voucher file ;
- (f) Bank Account ;
- (g) Stock Register ;
- (h) Tools and plant register ;
- (i) Visitor's book ;
- (j) Minute Book of the School Meal Advisory Committee;
- (k) Such other registers as may be prescribed by the Department of Education from time to time.

14. *Account and Returns.*—The Headmaster who will be the Member-Secretary of the local School Meal Advisory Committee will maintain correct accounts for the money and materials received and used. He will maintain a Stock Register for the vessels, plates, etc. He will maintain acquittance register for the Cooks and Helpers. The accounts and Registers should be made available by the Headmaster for scrutiny and audit by Deputy Inspectors of Schools and by other officers of the department whenever required.

The secretary will send to the Deputy Inspector of schools the following monthly return :—

Form of monthly return—

1. Name of the month and year
2. (a) Name of the Free Meal Centre  
(b) Name of the secretary and address
3. Range
4. Name of the School|Schools served by the Centre
5. Total number of pupils enrolled in the Institutions mentioned in column 4.
6. Total number of beneficiaries
7. Total number of days in the month
8. Total number of feeding days
9. Total number of meals supplied
10. Total expenditure incurred

*Signature—Date*

The Secretary will also send such other returns as may be prescribed.

15. *Audit.*—The accounts of the Midday Meal Centres will be scrutinised by the concerned Deputy Inspector of Schools every quarter before recommending advance grant for the Centre. The Deputy Inspector of Schools, will from 1st July 1982 be the authority to audit the school Meal Accounts in all schools (in non-Central Kitchen areas). Every year there will be an annual audit along with the annual inspection. The audit report will be sent to the concerned District Educational Officer who will review the reports and bring serious objections, if any, to the notice of the Audit wing of the Directorate of School Education. The audit wing will also make surprise audit of the centres, from time to time. Central kitchens, as is being done now, will be audited by the Audit Wing of the Directorate of School Education.

16. *Monitoring.*—It is essential to monitor this programme every month. The Deputy Inspector of Schools on receipt of monthly returns will consolidate the reports and submit a review report to the District Educational Officer who will send a consolidated report to the Director of School Education. The Director of School Education will send a State Monitoring Report to the Chief Secretary by the 20th of every month with a copy to Secretary (Education).

## APPENDIX C.

PROCEEDINGS OF THE DIRECTOR OF SCHOOL  
EDUCATION, MADRAS-6.

*Re. No. 98085 SM6|82|2, dated 29th May 1982.*

*Subject:* New programme of feeding the poor children 5 plus to 9 plus in Tamil Nadu in Schools under the control of Department of School Education Department—Sanctioned.

*Reference:* G.O. No. 857, Public (T.P.E.P.) Department, dated 28th May 1982 (Midday Meal G.O. No. 1).

The first Government Order issued (Midday Meal G.O. No. 1) for implementing the New Programme of feeding the poor children 5 plus to 9 plus in Tamil Nadu in Schools is communicated to the undermentioned officers for information and immediate necessary follow-up action.

All the Officers are requested to take advance action to gear up the Midday Meal Centres in schools immediately so that this scheme is positively implemented from 1st July 1982. They need not wait for further instructions. They should take advance action as per the guidelines already given by the Chief Secretary to Government, when he addressed the Inspecting Officers at Madras on 26th May 1982.

The salient points of the new feeding programme are:

(i) Children under poverty line of the age group 5 plus to 9 plus will be fed in schools.

(ii) These children will be fed for all the days in the year without interruption.

(iii) There will be special cooks and helpers appointed in schools and paid by Government to do the cooking. Vessels and plates and tumblers will be supplied also by Government.

(iv) The entire cost including cost of fuel, vegetables, contingencies, etc., will also be borne by Government at the rate of 45 paise per child per day as against the present 10 paise per child. (The old scheme will continue for 200 days for children of 10 plus to 14).

(v) The Civil Supplies Department and the Co-operative Department will supply the required quantities of rice, dhal and oil to the schools direct at the door of the school.

(vi) The Audit of the School Meal Accounts will be done only by the Deputy Inspector of Schools concerned.

(vii) The District Educational Officers will be the monitoring agencies for the Education Districts and Chief Educational Officers for the Revenue Districts and the Director of School Education has been designed by the Government as the CHIEF MONITOR for the feeding scheme in schools under the control of the Education Department.

(viii) Every individual school will arrange a School Improvement Conference in the locality of the school to appraise the public and harness community efforts well before July 1st 1982—the date the scheme will be launched in all the schools in Tamil Nadu.

(ix) The Assistant Educational Officers and Deputy Inspectors of Schools should co-ordinate their efforts and make the scheme a grand success. All children of age 5 to 9 who are not yet in school, when they come to school for food should be enrolled, as the feeding programme will cover school children.

(x) The teachers of Tamil Nadu are known for their sincere efforts and their co-operation should be enlisted in a full measure. All teachers' Association Secretaries should be appraised of this new scheme at once.

(xi) The Parent Teachers Association also should be involved and

(xii) The District Educational Officers and Chief Educational Officers should immediately see that all the schools under their control start the Midday Meal Scheme without exception. This is their first responsibility.

Detailed further guidelines will follow. The Officers should work on a War Footing to keep themselves alert and tour round all the centres in their areas to keep every school ready to start the scheme by July 1st 1982. The Director of School Education and other Officers of the Directorate will also tour round the State.

The receipt of these proceedings should be acknowledged immediately.

*Director of School Education.*



## APPENDIX D.

Communication from the Commissioner and Secretary to Government, Social Welfare Department, Madras-9.

*Letter No. 21106|SW. VI|82, dated 29th May 1982.*

To

All Collectors.

All District Social Welfare Officers.

All Divisional Development Officers.

All Panchayat Union Commissioners.

Sir|Madam,

*Subject:* Social Welfare—Welfare of Children—Feeding of Children in the age-group of 2 plus to 4 plus in Rural Areas through Child Welfare Centres (Implementation—Detailed Instructions—Issued).

*Reference:* G.O. Ms. No. 858, Public (T.P.E.P.) Department (Midday Meal G.O. No. 2.), dated 28th May 1982.

Government has announced the scheme for feeding of children in the age-group of 2 plus to 4 plus in the rural areas through the supply of one Midday Meal Free of cost for the children coming from families below the poverty line in the rural areas. The scheme will be implemented with effect from 1st July 1982.

The feeding programme will be implemented through Child Welfare Centres already existing and new centres to be started now. The total number of Child Welfare Centres through which the beneficiaries are proposed to be covered in the rural areas is 16,930. Out of these, 4,343 Child Welfare Centres are already functioning in the rural areas. Excluding

these, 12,587 additional Child Welfare Centres must be started now to start the feeding programme from 1st July 1982 onwards. The district-wise distribution of 12,587 centres is enclosed in Table I. Table I gives the details of rural population of the district, number of children in the age group of 2 plus to 4 plus, number of children who are expected to participate in the feeding programme, number of centres allocated to each district and also the number of existing centres. In each centre, 100 children in the age-group of 2 plus to 4 plus will be fed.

#### *Allocation to the Blocks.*

The number of centres allotted are to be started only in the rural areas. Instructions to start centres in Municipalities and urban areas of townships will be issued separately. The children in the age-group of 2 plus to 4 plus form 8.72 per cent of the population. It is expected that 60 per cent of these children may become eligible to receive midday meal. Based on these, each Panchayat Union may be allotted the required number of centres by the District Collectors. Each centre must feed on an average 100 children. The Blockwise Selection of Centres may be communicated to this office immediately. In case due to the exigencies of the situation, the Collectors consider that there is need for additional centres, keeping in view the norms of one centre to a village and within a kilo metre range, or due to natural barriers, etc., the Collectors, can start a centre provided there is a minimum of 70 children. Each centre can also take up to a maximum of 150 children per centre.

#### *Location of the Child Welfare Centre.*

Each Child Welfare Centre must be located in a village where there is scope for maximum coverage of children belonging to the poorer sections of the population. If children are to be gathered from adjacent hamlets, it must be located in a central point where it is accessible to all children. The Child Welfare Centres must be accessible to the Adi-Dravida

**Community.** While locating the Child Welfare Centres, care must be taken to see that the entire population is covered. No section of the population should be left out. The average number of Children getting food in each centre may be 100. If it is necessary to locate a centre in a remote village, with only 70 children a centre can be started. In the same way if there is a big village with 150 children, it is enough if one centre is started. The minimum number of children in each centre will be 70 and the maximum number will be 150. As this is the maximum manageable number, it is advisable not to have more than this number.

#### *Physical Facilities.*

After fixing the village for starting of the Child Welfare Centre, good accommodation for the Child Welfare Centre may be sought. In the Child Welfare Centre, non-formal pre-school education to 40 to 60 children in the age group of 3½ to 5 years will be conducted and feeding for 100 children will be carried on. The weekly requirement of the food commodities for 100 persons must be stored. It is necessary that there is a room of the size of 600 square feet to conduct pre-school and for children to sit and have their lunch and a small store-room and a kitchen. This is the minimum required space. As large number of children are to be fed, protected water supply to the building must be ensured. The centres can be located in any of the Government, Panchayat Union or any other public buildings available. Maximum efforts may be taken to get rent-free building through the public. In case of non-availability of rent-free buildings, buildings on nominal rent may be taken. It may be remembered in this context when 4,000 feeding centres were started earlier during the drought through the efforts of the District Collectors, rent-free buildings had been made available. Similar efforts may be made now.

#### *Personnel.*

Each Child Welfare Centre will be managed by a Child Welfare Organiser and two Child Welfare Assistants. The

Child Welfare Centres will be under the overall control of the Panchayat Union Commissioners, who will be assisted by the Extension Officer (Social Welfare), Extension Officer (Panchayat), Extension Officer (Education) and Extension Officer (Co-operation). The Block Development Officer may suitably allocate the responsibilities for constant inspection and monitoring of the programme among these personnel.

The Child Welfare Organiser will be paid an honorarium of Rs. 175 and the Assistants an honorarium of Rs. 60 per mensem. The qualification of the Child Welfare Organiser is X Standard passed or failed, preference being given to passed candidates. The candidates selected should be in the age-group of 25 to 35; however in the case of widows the age limit may be extended to 40. The Child Welfare Assistants should know to read and write Tamil and should be in the age-group of 25 to 40. All the staff selected should be from the local Community and should be resident of the village in which the Child Welfare Centre is located. Preference may be given to widows. The selection of the Child Welfare Organiser and Assistants will be made by a Committee consisting of:

1. District Collector's Nominee, who may be Personal Assistant (P.D.),
  2. The District Employment Officer,
  3. The District Social Welfare Officer,
  4. The concerned Panchayat Union Commissioner and
  5. A non-official to be appointed by the Government.
- Applications may be collected from suitable candidates and block-wise interviews conducted. The Child Welfare Organiser may be appointed not later than 21st June 1982.

*Selection of Beneficiaries :*

The selection of Child Welfare Organisers and Assistants must be taken up immediately and efforts be made to ensure

that they report for duty at Block Headquarters latest by 21st June. They should be given training for a period of 7 days by the Block Development Officer|Extension Officer (Social Welfare)|Rural Welfare Officer. After training the Child Welfare Organisers must be directed to make an identification of the beneficiaries on the basis of child's age, poverty, etc. In case for any reasons, selection for the Child Welfare Organisers is likely to take time, then it may not be possible for them to identify the beneficiaries who are to be fed under this midday meal scheme. Hence, after the location of the Child Welfare Centres, the Panchayat Union Commissioners must make alternate arrangement to identify the beneficiaries by distributing this work to the Extension Officer (Social Welfare), Extension Officer (Education), Extension Officer (Panchayats), Extension Officer (Co-operation), Rural Welfare Officers and Gramsevikas. Care must be taken to enroll only deserving children. Only children coming from families below the poverty line must be selected. The selected list of beneficiaries may be handed over to the newly appointed Child Welfare Organisers to start the feeding programme. The list may be updated every month. A report on the number of Child Welfare Centres started, details of the Child Welfare Organisers selected and the number of beneficiaries in each centre may be sent in the proforma enclosed by all the Panchayat Union Commissioners, on the starting of the Child Welfare Centres. The report may reach the office by 7th July 1982.

*Equipment :*

Each Child Welfare Centre will be provided with Rs. 750 worth of Educational Equipment and Rs. 2,500 worth of Kitchen Equipment. The Kitchen Equipment will be supplied through TANSI at the Block level. TANSI has agreed to supply 7,000 sets by 28th June 1982 and 5,587 sets by 25th July. The remaining centres will get their supply by 25th August. Hence it may be seen that above 50 per cent of the new Centres can only be supplied with Kitchen

utensiles before 1st July. Wherever drought-relief centres were established, the utensils there may be utilised for the new centres. In other places local arrangements on a temporary basis for one month may be made by the Panchayat Union Commissioner|District Social Welfare Officer and the Feeding started on the scheduled date of 1st July. The feeding programme should not be delayed for this reason. The allotment for this item will be distributed to the District Collector who will be authorised to make the payment for his district to TANSI.

The educational equipment will be supplied by Balamandir, Stree Seva Mandir and other small scale Industries. All the Child Welfare Centres except these which were started within the last three years will be supplied with educational equipment. On receipt of the Educational Equipment, the Panchayat Union Commissioners are requested to send the stock entry certificate to the Director of Social Welfare so that the bill can be settled by this office. The supply of educational equipment is, however, likely to take atleast a minimum of 3 months.

#### *Training :*

The Child Welfare Organisers will be given training by the Block Development Officers|Extension Officers (Social Welfare) and Extension Officers (Education) at the Block level. The initial training will be for a period of one week (7 working days) to be followed by 2 such trainings at a later date. The training will be mainly on the organisational aspects of the midday meal scheme including nutrition. The training material will be provided by this office to the trainers (i.e.). Extension officers (Social Welfare), etc. A daily allowance of Rs. 4 will be provided for each trainer for 7 days. The training will be non-residential. The training may have to be started immediately on appointment of the Child Welfare Organisers. The training must be given to the Child Welfare Organisers already working in the Child Welfare Centres also.

As and when the training courses are completed, the Panchayat Union Commissioners are requested to send a report in the proforma enclosed, to this office. Further training programme will also be organised, subsequently on the educational programmes of the Centre.

*Midday Meal Programme:*

The midday meal will consist of the following:—

Rice	..	..	..	..	..	80 gms.
Dhall	..	..	..	..	..	10 gms.
Oil	..	..	..	..	..	7 gms.
Vegetables and condiments	..	..	..	..	..	..

A provision of 44 paise is made for each beneficiary for 365 days. The food will be cooked in the Centre and Children will be served in the form of sadam and curd sadam, etc. The provision of 44 paise per beneficiary must be spent as follows: :—

<i>Serial number and provision.</i>	<i>Quantity.</i>	<i>Rs. P.</i>
(1)	(2)	(3)
	gms.	
1 Rice .. .. .	80	0.16
2 Dhall .. .. .	10	0.05
3 Oil .. .. .	7	0.07
4 Vegetables and condiments ..		0.10
5 Fuel and transport .. .. .		0.06
Total .. .. .		<u>0.44</u>

The requirements of food commodities for each centre per week will be supplied at the feeding centre by the Tamil Nadu Civil Supplies Corporation or the Co-operatives. The first supplies will be for two fortnight's requirements; thereafter

once a fortnight regular supplies will be made available at the feeding centre. The intention is that at any given time, in each centre, there will be one fortnight's buffer stock. It will therefore be necessary to provide each centre with suitable containers with a capacity of 300 to 400 kgs. of rice. Collectors will recall that under the Applied Nutrition Programme and Small Farmers Development Agency Schemes such containers were given to small and marginal farmers. Any other alternate type of container could be used; kerosene oil barrels for which a cover with locking arrangements can be provided. It would also be necessary to have for each centre a container to store at least 5 litres of oil. Plastic jerry cans may be useful.

The preparation should have plenty of nutritious vegetables and greens. The vegetables and fuel must be purchased by the Child Welfare Organisers weekly. A permanent advance of Rs. 50 per week for this purpose to be recouped from the Block Development Officer's Office every week with proper vouchers within the overall sanction for this item has been sanctioned to the Child Welfare Organiser. For a proper sustenance of the programme and keeping in view the nutritional needs of the midday meal, it would be necessary to ensure that near each centre, great care and effort is taken to plant atleast 1 Murungakai tree, 1 gooseberry (aranellikai tree), 2 papaya trees, 2 coconut trees and 1 mango tree. It should be the responsibility of the staff of the centre to ensure that these plants are tended carefully. The planting of the saplings should be in such places where the waste food material and the water from the kitchen can be utilised with the least difficulty.

*Feeding in the existing centres:*

The feeding pattern in the existing Child Welfare Centres will be implemented in the following manner:—

(1) At present the beneficiary level in the existing pre-school is 70 children in the age-group of 3-5 years per centre. In the new feeding pattern, the beneficiary level will be 100.



per centre and will include 2 plus children also. All eligible children in the village may be enrolled. Hence, the beneficiary level of 70 children in the age group of 2 to 4 plus in the existing Child Welfare Centre will have to be raised to 100 children per centre.

(2) Among the 70, some pregnant and nursing women are also fed in the Child Welfare Centres. Further fresh enrolment of pregnant and nursing mothers need not be undertaken.

(3) At present, in the existing Child Welfare Centres, only 'CARE' feeding is provided for 300 days in a year. In the new scheme, feeding will have to be provided for 365 days in a year. However, the existing CARE supply available will be utilised now also in all the centres implementing the CARE feeding programme. It has been decided that in the 4,313 Child Welfare Centres which are implementing CARE Balahar feeding programme, balahar will be supplied for 240 days and indigenous feeding at 44 paise will be supplied for the remaining 125 days.

The feeding pattern in the existing Child Welfare Centres implementing Balahar feeding programme will therefore be as follows :—

(i) CARE feeding for 20 days in a month.

(ii) Indigenous feeding for the remaining days—10 or 11 days in a month (at the rate of 44 paise per beneficiary).

The CARE feeding must be limited to 240 days in a year for all the beneficiaries and indigenous feeding at 44 paise for 125 days in a year. This roughly works out as 2 days of CARE feeding and one day of indigenous feeding.

(4) Due to the enhanced level of beneficiaries, one extra Child Welfare Assistant may be appointed to all the existing Child Welfare Centres. The Child Welfare Assistant will receive an honorarium of Rs. 60 per mensem.

(5) This pattern of feeding i.e., 240 days of CARE Balahar and 125 days of indigeneous food may be adopted at 44 paise in all the Applied Nutrition Programme Child Welfare Centres also.

(6) Collectors may also explore the possibility of integrating the Child feeding programme under the Maternity and Child Welfare Centres also with the new feeding programme so that one uniform model is available.

(7) To sum up, the CARE supplies of 9,216 metric tons will be now used under the new feeding programme for 4,890 pre-schools (4,343 Social Welfare, 457 Applied Nutrition Programme) for 240 days. For the balance 125 days, indigeneous food will have to be provided i.e., every third day, the children will be given indigenious food.

*Feeding in ICDS Projects :*

Thalli and Nilakottai Blocks are implementing ICDS scheme. Here 100 centres are under the control of the Child Development Project Officers. They will remain under the control of the CDPOs. The CDPOs are instructed to enhance the beneficiary level to 150 wherever there is a need and extra children have to be enrolled. In the ICDS centre also, the feeding pattern will be as per the existing CWC. CARE feeding will be implemented for 240 days a year and indigeneous feeding for 125 days. Until further orders effecting the above change, the existing feeding programme can continue as is done now.

*Non-formal pre-school education :*

In the Child Welfare Centres, the children must be taught non-formal pre-school education through educational equipment supplied. Children in the age group of 3½-5 years may be enrolled for the non-formal pre-school education. The number of children may be from 40-60. All children in the age-group of 3½-5 years who are willing to attend the non-formal

pre-school education classes may be allowed to attend. Special efforts must be made to enroll more number of children of Adi-Dravida Community.

The daily programme in each Child Welfare Centre will be as follows:—

- |                         |       |   |
|-------------------------|-------|---|
| 8.30 a.m.               | .. .. | Arrival and cleaning the premises.  |
| 9.30 a.m.               | .. .. | Arrival of children for pre-school education (40—60) in the age-group of 3½—5 years). |
| 9.00—12 noon            | .. .. | Preparation of food for distribution by Child Welfare Assistant.                      |
| 9.00 a.m. to 9.15 a.m.  |       | Prayer.   |
| 9.15 to 9.30 a.m.       | .. .. | Drawing and teaching of language.   |
| 10.00 to 10.45 a.m.     |       | Out-door games and physical training.   |
| 10.45 to 11.15 a.m.     |       | Teaching through educational equipment.   |
| 11.15 to 12 noon        | .. .. | Rhyme reciting and story telling.   |
| 12.00 noon to 1.00 p.m. |       | Feeding of children in the pre-school.  |
| 1.00 to 2.00 p.m.       | .. .. | Feeding of beneficiaries other than those who attend the pre-school.                  |
| 2.00 to 2.30 p.m.       | .. .. | Half an hour-break for the staff.   |
| 2.30 to 4.00 p.m.       | .. .. | Writing of the records (on 3 days). Taking of weight of children (on 3 days).         |
| 4.00 p.m.               | .. .. | Closing of the centre.  |

Weighing scales for purposes of weighing the children will be supplied later.

#### *Contingencies and Records :*

A provision of Rs. 12 per centre has been provided towards contingencies. This may be utilised towards purchase of broom-sticks, soaps, towels, etc., to the Child Welfare Centre. The provision of Rs. 10 provided towards purchase of records

may be utilised to purchase the following registers for the centre :—

1. Child Welfare Centre Attendance Register.
2. Feeding Attendance Register.
3. Stock Book.
4. Permanent Stock Register.
5. Account Book.
6. Daily Dairy.
7. Visitor's Book.

*Village Level Committee:*

To enrol further participation, a Committee associating two or three Madhar Sangam Members, the Village Administrative Officer and a local Philanthropist may be constituted by the B.D.O. after obtaining the approval of the District Collector. The Child Welfare Organiser should display in the Centre the daily roster of the names of at least three or four Madhar Sangam members who will in turn supervise the feeding programme daily.

*Budget :*

The allotment for each new centre is as follows :—

Honorarium for Child Welfare Organiser at Rs. 175 (175 × 12).	2,100.00
Honorarium for Child Welfare Assistant Rs. 60 for 2 CWAs. (60 × 2 × 12).	1,440.00
Contingencies at Rs. 12 per mensem .. .. .	144.00
Purchase of records Rs. 10 per annum .. .. .	10.00
Feeding charges for 100 beneficiaries at 44 paise per day for 365 days.	16,060.00
Total .. .. .	19,754.00

*Non-Recurring :*

Training expenses at Rs. 4 per day for 7 days for 3 courses.	84.00
Total .. ..	84.00
Kitchen equipment .. .. .	2,500.00
The budget for the existing centres is as follows :—	
Honorarium for one extra Child Welfare Assistant Rs. 60×12 .. .. .	720.00
Purchase of Records Rs. 10 per annum .. ..	10.00
Feeding charges for 100 beneficiaries at 44 paise per day for 125 days.	5,500.00
Total .. ..	6,230.00

*Non-Recurring :*

Training expenses at Rs. 4 per day for 7 days for 3 courses.	84.00
Kitchen equipment .. .. .	2,500.00

Provision for contingencies already existing for these centres.

The total allocation for the District will be placed at the disposal of the District Collectors, who can distribute the budget to the B.D.Os. according to their requirement. The allocation for each district is indicated in Table II.

For the existing centres, the allotment is over and above the budget already distributed to the blocks.

*Monitoring*

It is essential to monitor the programme every month. The District Collectors are requested to send the report, on the implementation of the programme in the two proformae enclosed one for the new centres and another for the existing centres. The report may be sent for all the blocks in their

districts. The report may be sent to the Chief Secretary to Government, Public (TPEP) Department|Commissioner and Secretary to Government, Social Welfare Department under copy to Director of Social Welfare by the 7th of the succeeding month. The report for July 1982 may be sent by 10th August 1982.

Immediate action may be taken on the following:

- (1) Allocation of centres to the Panchayat Unions by the District Collectors on the basis of the criteria already indicated.
- (2) Identification of the Villages for the location of the CWCs.
- (3) Accommodation for the CWCs.
- (4) Collection of application and conduct of interview by the Committee.
- (5) Appointment of the C.W.O.s by the concerned B.D.Os.

Report on the action taken on the above points may be intimated every week.

Yours faithfully,

TMT. J. ANJANI DAYANAND,

*Commissioner and Secretary to Government.*

## ANNEXURE-I.

### DISTRICTWISE DISTRIBUTION OF FEEDING CENTRES (RURAL AREAS IN THE AGE GROUP OF 2 YEARS TO 4 YEARS.)

District.	Rural population.	Rural children population (in the age 2 to 4 year) 8.72 per cent of total population.	Expectant participation Rate (at 60 per cent).	Approximate strength in each centre.	Total number of centres required.	Number of per-school already in existence	Total number of additional centres allotted to district.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1 Chengalpattu .. .. .	22,06,337	1,92,392	1,15,435	100	1,154	322	832
2 North Arcot .. .. .	33,87,547	2,95,394	1,77,236	100	1,772	415	1,357
3 South Arcot .. .. .	35,39,726	3,08,664	1,85,198	100	1,852	448	1,404
4 Dharmapuri .. .. .	18,06,203	1,57,500	94,500	100	945	227	718
5 Salem .. .. .	24,37,772	2,12,575	1,27,545	100	1,275	386	889
6 Periyar .. .. .	16,03,558	1,39,830	83,898	100	838	152	686
7 Coimbatore .. .. .	15,01,501	1,31,715	79,030	100	790	213	577
8 Nilgiris .. .. .	3,21,747	28,056	16,844	100	168	95	73
9 Madurai .. .. .	28,85,032	2,51,574	1,50,944	100	1,509	330	1,179
10 Tiruchirappalli .. .. .	26,64,214	2,32,319	1,39,391	100	1,393	338	1,055
11 Thanjavur .. .. .	31,12,028	2,72,153	1,63,292	100	1,632	424	1,208
12 Pudukottai .. .. .	10,02,052	87,378	52,426	100	524	123	401
13 Ramanathapuram .. .. .	23,88,425	2,08,270	1,24,962	100	1,249	354	895
14 Tirunelveli .. .. .	23,21,482	2,02,433	1,21,460	100	1,215	335	880
15 Kanyakumari .. .. .	11,73,880	1,02,360	61,415	100	614	181	433
<b>Total .. .. .</b>	<b>3,23,69,504</b>	<b>28,22,613</b>	<b>16,93,576</b>	<b>100</b>	<b>16,930</b>	<b>4,343</b>	<b>12,587</b>

ANNEXURE-II.

DISTRICT—WISE FINANCIAL ALLOCATION (FOR CHILD WELFARE CENTRES IN RURAL AREAS)

Care Feeding—240 days.

Indigenous Feeding—125 days.

District.	Number of new centres.	Number of old centres.	Total number of centres.	Cost on new centres (in crores).			Cost on old centres (In crores).			Total cost (In crores)		
				Recurring.	Non-recurring.	Total.	Recurring.	Non-recurring.	Total.	Recurring.	Non-recurring.	Total.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1 Chengalpattu .. ..	832	322	1,154	1,643	0.215	1.858	0.201	0.684	<b>0.285</b>	1.844	0.299	<b>2.143</b>
2 North Arcot .. ..	1,357	415	1,772	2,681	0.259	5.031	0.259	0.108	0.367	2.940	0.458	3.398
3 South Arcot .. ..	1,404	448	1,852	2,774	0.363	3.137	0.279	0.116	0.395	3.053	0.479	3.532
4 Dharmapuri .. ..	718	227	945	1,418	0.186	1.604	0.141	0.659	0.200	1.559	0.245	1.804
5 Salem .. ..	889	386	1,275	1,756	0.230	1.987	0.240	0.100	0.340	1.996	0.330	2.326
6 Periyar .. ..	686	152	838	1,355	0.178	1.533	0.095	0.039	0.134	1.450	0.217	1.667
7 Coimbatore .. ..	577	213	790	1,140	0.149	1.289	0.133	0.055	0.188	1.273	0.204	1.477



District.	Number of new centres.	Number of old centres.	Total number of centres.	Cost on new centres (in crores).			Cost on old centres (in crores).			Total cost (In crores).		
				Recurring.	Non-recurring.	Total.	Recurring.	Non-recurring.	Total.	Recurring.	Non-recurring.	Total.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
8 Nilgiris .. ..	73	95	168	0.145	0.019	0.164	0.059	0.025	0.084	0.204	0.044	0.248
9 Madurai .. ..	1,179	330	1,509	2,329	0.305	2,634	0.206	0.086	0.292	2,535	0.391	2,926
10 Tiruchirapalli .. ..	1,055	338	1,393	2,084	0.273	2,357	0.211	0.088	0.299	2,295	0.361	2,056
11 Thanjavur .. ..	1,208	424	1,632	2,386	0.312	2,698	0.264	0.110	0.374	2,650	0.422	3,072
12 Pudukkottai .. ..	401	123	524	0.792	0.103	0.895	0.077	0.032	0.109	0.869	0.135	1,004
13 Tirunelveli .. ..	880	335	1,215	1,738	0.227	1,965	0.209	0.087	0.296	1,947	0.314	2,061
14 Ramnathapuram .. ..	895	354	1,249	1,768	0.232	2,000	0.220	0.092	0.312	1,988	0.324	2,312
15 Kanniyakumari .. ..	433	181	614	0.855	0.112	0.967	0.113	0.047	0.160	0.968	0.159	1,127
Total .. ..	12,587	4,343	16,930	24,864	3,254	28,118	2,707	1,128	3,835	27,571	4,382	31,953

N.B.—(Cost of Educational equipment not included in non recurring expenditure figures).

ANNEXURE—III.

PROGRESS REPORT FOR THE EXISTING CENTRES.

(Care Feeding 240 Days)

District:

(Indigenous Feeding 125 Days)

Month :

S. No.	Name of the Block.	PHYSICAL				Budget	* FINANCIAL			Remarks
		Number of centres implementing CARE feeding	Total number of beneficiaries	CARE stock issued	Number of days CARE feeding implemented		Expenditure upto the previous month	Expenditure during the month	Total	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)

\* Expenditure for both the CARE Feeding and Indigenous Feeding on 125 Days may be reported.

ANNEXURE—IV.  
 PROGRESS REPORT—NEW CENTRES.

District:

Month :

Serial number	Name of the Block	PHYSICAL							FINANCIAL			Remarks.
		Number of CWCs newly started	Total number of beneficiaries in the feeding programme	Total number of children in the pre school	Food commodities issued in kgs.			Budget	Expenditure upto the previous month	Expenditure during the month	Total	
(1)	(2)	(3)	(4)	(5)	Rice	Dhal	Oil	(9)	(10)	(11)	(12)	(13)

## ANNEXURE VI.

## REPORT FOR THE TRAINING PROGRAMME.

1. Number of New Centres started . . . . .
2. Number of existing centres . . . . .
3. Date of starting of the Training programme.
  - (i)
  - (ii)
  - (iii)
4. Trainer . . . . .
5. Short report on the Training conducted . . . . .

ANNEXURE-VI.

REPORT ON THE CHILD WELFARE CENTRES IN THE COMMUNITY DEVELOPMENT BLOCK.

Number of existing centres:

Number of new centres :

S.No.	Name of the C.W.C.	Name of the C.W.O .	Date of appointment.	Educational qualifications.	Trained or untrained.	Existing centres or New centres,	Accommodation provided.	Rent free or Rented.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

## APPENDIX E.

## GOVERNMENT OF TAMIL NADU

## ABSTRACT

Nutrition Food Programme for Children—Supply of Commodity required by feeding Centres by Co-operatives in Twelve Districts and by Tamil Nadu Civil Supplies Corporation in remaining Districts—Orders—Issued.

Public (T.P.E.P.) Department.

(G.O. Ms. No. 901, dated 4th June 1982.)

(Midday Meal G.O. No. 3.)

**ORDER :**

The Government issue the following orders for implementing the free Nutritious Noon Meal Programme for children announced by the Government:—

(1) The three commodities of Rice, Dhall and Oil shall be procured by the Tamil Nadu Civil Supplies Corporation for supply to all the feeding Centres run by the Social Welfare Department and Education Department—

- (a) Boiled rice of ordinary variety as supplied in fair price shops (at 100 gm. per child per day).
- (b) Dhall (at 15 gm. per child per day).
- (c) Oil (at 5 gm. per child per day).

Rice shall be priced at Rs. 1.75 per kg. The price of dhall will be fixed with reference to cost of procurement. Palmolein will be priced at Rs. 8.90 per kg. Condiments required shall be purchased locally by the feeding Centres from the local village fair price shops, if stocks are available with them and if not, with reference to rules in force.

2. The Tamil Nadu Civil Supplies Corporation, shall procure the entire requirement of feeding centres in regard to Rice, Dhall and Edible Oil. The lead societies in the following 12 Districts shall arrange to lift the articles from the taluk level godowns of the Tamil Nadu Civil Supplies Corporation without payment of the cost to the corporation and arrange to supply them through lorries to the feeding centres in the following districts:--

- (1) Chingleput.
- (2) North Arcot.
- (3) Salem.
- (4) Coimbatore.
- (5) Periyar.
- (6) Nilgiris.
- (7) Tiruchirappalli.
- (8) Pudukkottai.
- (9) Madurai.
- (10) Ramanathapuram.
- (11) Kanyakumari.
- (12) Thanjavur.

The lead societies are required to incur the expenditure on transport of commodities only in the 12 Districts and claim transport charges from the Tamil Nadu Civil Supplies Corporation later on. In the remaining districts, the Tamil Nadu Civil Supplies Corporation shall itself arrange to deliver the commodities to the feeding centres. The commodities shall be delivered in standardised packings, as the feeding centres have no weighing arrangements. The Tamil Nadu Civil Supplies Corporation, shall obtain accounts from the Lead Societies for supplies made and transport cost in the 12 Districts, add to it the value of supplies made by corpora-

tion in the remaining Districts and present monthly bills to the Government or the authority nominated by them, for payment.

3. Supplies of Commodities shall be made once in a fortnight. A time table shall be drawn in advance and all the feeding centres should know in advance, the date on which they can expect supplies. These should be so fixed that when the lorries arrive, the commodities are taken delivery of by the feeding centres without any delay. The Tamil Nadu Civil Supplies Corporation should ensure that good quality commodities are procured and supplied for the scheme. The first delivery to be made shall be the normal requirement of feeding centres for one month so that the requirements of a fortnight shall be available as buffer stock to be operated on, in the unlikely event of supply arrangements breaking down. The Director of School Education, Madras and the Director of Social Welfare should identify the feeding centres and intimate the list to the Tamil Nadu Civil Supplies Corporation and the Registrar of Co-operative Societies, Madras. The quantum of each commodity to be supplied to each centre should be intimated.

4. The Government sanction ways and means advance of Rupees Ten crores to the Tamil Nadu Civil Supplies Corporation to enable the Corporation to procure, store and transport the commodities required for the scheme and arrange for the regular supplies without interruption. This will be a revolving fund to be recouped periodically by presentation of necessary vouchers and bills. The ways and means advanced will carry interest at 14 per cent per annum. The Commissioner of Civil Supplies is requested to draw and disburse the amount to the Tamil Nadu Civil Supplies Corporation.

5. The Civil Supplies Corporation will provide an advance to each of the lead societies in the 12 Districts towards transport charges. Such advances may not be more than Rupees Ten Lakhs.



6. The feeding centres shall make arrangements for proper storage of commodities received by them. The right type of vessels or containers required for storage of oil, dhal, etc., shall be procured immediately by obtaining necessary funds from the respective Heads of Departments.

7. The Director of School Education and the Director of Social Welfare shall furnish to the Tamil Nadu Civil Supplies Corporation and Registrar of Co-operative Societies a list of feeding centres in each district to be operated by them. The location of the centres may be marked on a district map so that route map for transport can be planned. The names of persons who are authorised to receive stocks of commodities in the feeding centres with two specimen signatures of the individual should be furnished to the Tamil Nadu Civil Supplies Corporation, and the Registrar of Co-operative Societies, as the case may be.

8. The various forms required for the scheme such as acknowledgment for receipt of supply, etc., should be standardised and got printed.

(2) The expenditure is debited to "709 C. Loans for food—AA. Procurement and Supply—I. Non-Plan—AA. Loans to statutory Corporation, Boards and Government Companies—01. Ways and Means advance to Tamil Nadu Civil Supplies Corporation D.P. Code No. 709 C. AAAA. 0105".

(3) This Order issues with the concurrence of Finance Department vide its U.O. No. 685|JS(P)|82, dated 2nd June 1982.

(By Order of the Governor.)

**K. DIRAVIAM,**  
*Chief Secretary to Government.*

## APPENDIX F.

## GOVERNMENT OF TAMIL NADU

## ABSTRACT

[CHIEF MINISTER'S NUTRITIOUS MEAL PROGRAMME FOR CHILDREN—Extension of the programme to the school children in the age group of 10 plus to 15—Orders issued.]

(G.O. Ms. No. 1222, Public (CMNMPC) Department, dated 26th July 1984.)

## HEAD :

1. G.O. Ms. No. 857, Public (TPEP) Department, dated 28th May 1982.
2. G.O. Ms. No. 1100, EST, dated 3rd June 1982.

## ORDER.

The Government, while presenting the Budget, for the year 1984-85, have announced that the Chief Minister's Nutritious Meal Programme for Children would be extended to school children in the age group of 10 plus to 15 from 15th September 1984. The Government pass the following Order in this regard.

2. The Chief Minister's Nutritious Meal Programme is extended both in urban and rural areas, to school children below the poverty line studying in Standards VI to X irrespective of their age but normally in the age group 10 plus to 15. The beneficiaries would be fed for 220 school working days in a year. About 15.53 lakh students are expected to be covered under this programme.

3. The ingredients of the Nutritious Meal should contain the following :—

<i>Food Commodity.</i>	<i>Std. 6 to 8th.</i>	<i>9 to 10th Std.</i>
(1)	(2)	(3)
	Grams.	Grams.
Rice .. .. .	100	120
Dhall .. .. .	15	15
Oil .. .. .	3	3
Vegetables and Condiments .. .. .	50	50

The Food commodities shall be supplied by the Tamil Nadu Civil Supplies Corporation as per the existing system.

4. Sanction is accorded for incurring a recurring expenditure on the following items by each of the school centres:—

(i) Contingent expenditure towards purchase of registers, soaps, etc., at the rate of Rs. 20 per month per school centre, if the number of children fed is 500 or less; Rs. 30 per month per school centre if the number of children fed exceeds 500. This expenditure shall be restricted to 9 months in a year leaving the holidays and vacation.

(ii) Recurring expenditure of 13 paise per student per day for the purchase of vegetables, condiments and fuel.

5. Sanction is accorded for incurring the following non-recurring expenditure as detailed below by every school centre.

(1) *Purchase of cooking utensils.*—The following ceiling of expenditure is fixed for purchase of cooking utensils depending on the number of beneficiaries.

(a) A sum of Rs. 1,000 per centre is sanctioned for schools with a feeding strength of 200 and below.

(b) For the schools with a feeding strength of 201 to 300 the amount sanctioned is Rs. 1,500.

(c) For the schools with a feeding strength of 301 to 500, the amount sanctioned is Rs. 2,500.

(d) For the schools with a feeding strength of 501 and above, the amount sanctioned is Rs. 5,000.

(2) *Construction of temporary shed for Kitchen-cum-Store-room.*—The following ceiling of expenditure is fixed for construction of temporary shed depending on the number of beneficiaries.

(a) A sum of Rs. 1,000 is sanctioned for every school centre with the feeding strength of 200 and below.

(b) A sum of Rs. 1,500 is sanctioned for schools with the feeding strength of 201 to 300.

(c) A sum of Rs. 2,500 is sanctioned for schools with the feeding strength of 301 to 500.

(d) A sum of Rs. 5,000 is sanctioned for schools with the feeding strength of 501 and above.

However both for the purchase of utensils and construction of temporary sheds, wherever the number of children exceeds the upper limit, after the slab only by 10 per cent, the same ceiling of expenditure should be adhered to.

(3) *Purchase of Plates and Tumblers :*

(a) For schools with the feeding strength of 500 and below, 25 sets of tumblers and plates shall be purchased for each centre at the rate of Rs. 6 per set.

(b) For schools with the feeding strength exceeding 500 and above, 50 sets of plates and tumblers shall be purchased for each centre at the rate of Rs. 6 per set.

The above utensils shall be purchased from the nearest unit of TANSI or Super Market or Co-operative Institutions. If these utensils, tumblers and plates are not available in any of these institutions they should be purchased after getting three or more quotations. In every district a Committee consisting of P.A. (CMNMP) to Collector and District Educational Officer shall be constituted to approve the quotations and to arrange for the purchase of utensils.

6. The Government direct that other instructions and guidelines issued for the implementation of the scheme in the age group 5 plus to 9 will equally be applied to this extension also. The Departmental heads will be the controlling authorities and monitor the scheme respectively. The Director of School Education will be the Chief Monitor of the scheme in so far as the feeding in schools under the school Education Department is concerned.

7. The head of account to which the expenditure should be debited will be communicated separately.

8. The Director of School Education and other heads of Departments shall see that the non-recurring grants released in accordance with this Government Order are utilised for the purpose for which they are released and obtain utilisation certificate from the concerned district officials.

9. The expenditure is on a New Service and approval of the legislature will be obtained in due course. Pending approval of the legislature the expenditure will be met by an advance from the contingency fund, orders on which will be issued by the Finance (BG) Department. The Director of School Education and other concerned heads of departments should apply to Government in Finance Department in the prescribed proforma early for the sanction of advance from the contingency fund so far as it relates to their department.

10. This order issues with the concurrence of Finance Department Vide its U.O. No. 2585|FS(P)|84, dated 26th July 1984.

(By Order of the Governor)

K. CHOCKALINGAM,  
*Chief Secretary to Government.*

## APPENDIX G.

## GOVERNMENT OF TAMIL NADU

## ABSTRACT

**[CHIEF MINISTER'S NUTRITIOUS MEAL PROGRAMME FOR CHILDREN—Extension of the programme to the school children in the age group of 10 plus 15—Appointment of Nutritious Meal Organisers, Cooks and Helpers—Orders Issued.]**

[G.O. Ms. No. 1243, Public (CMNMPC) Department, dated the 31st July 1984.]

**READ---**

G.O. Ms. No. 1222, Public (CMNMP) Department,  
dated 26th July 1984.

## ORDER.

The Government while presenting the budget for the year 1984-85 have announced that the Chief Minister's Nutritious Meal Programme for Children would be extended to school children in the age group of 10 plus to 15 from 15th September 1984. Orders have been issued accordingly in the Government Order cited. The Government now pass the following Orders regarding the appointment of Nutritious Meal Organisers, Cooks, Helpers.

2. Sanction is accorded to the creation of 3,360 temporary posts of part time Nutritious Meal Organisers, Cooks and Helpers for appointment in school feeding centres. The Government direct that, for boys' schools and co-education schools men shall be appointed as Nutritious Meal Organisers and for girls' schools women shall be appointed. The Government also direct that the instructions and guidelines issued for the appointment of Nutritious Meal Organisers in G.O. Ms. No. 2789, Public (CMNMPC), dated 6th July 1984 and the qualification prescribed by the Government shall be scrupulously followed while making appointment to the post of Nutritious Meal Organisers.

3. Sanction is accorded for incurring the following recurring expenditure by each of the school centres.

(1) The part time Nutritious Meal Organisers shall be appointed on payment of honorarium of Rs. 150 per mensem.

(2) One part time Cook shall be appointed on payment of Rs. 2 per day of attendance, for all the school working days in a month.

(3) (a) One Helper to assist the Cook and to clean the vessels at the rate of payment of Re. 1 per day for all the school working days in a month.

(b) One additional cook and one additional helper shall be appointed for every 500 beneficiaries in a centre at the same rate of payment of Rs. 2 per day for cooks and Re. 1 per day for helpers for all the school working days.

4. The head of account to which the expenditure towards the above appointment should be debited will be communicated separately.

5. The expenditure is on 'New Service' and approval of Legislature will be obtained in due course. Pending approval of the Legislature the expenditure will be met by an advance from the contingency Fund, orders regarding which will be issued by the Finance (BG) Department. The Director of School Education and other Heads of Departments should apply to Government in Finance Department in prescribed proforma early for the sanction of advance from the contingency Fund so far as it relates to their Department.

6. This order issues with the concurrence of the Finance Department vide its U.O. 370|DS(B)|84, dated 30th July 1984.

(By Order of the Governor)

K. CHOCKALINGAM,  
Chief Secretary to Government.

## APPENDIX H

STANDARDISED RECIPES SUITABLE FOR THE  
CHIEF MINISTER'S NUTRITIOUS MEAL PROGRAMME.1. *Sweet Pumpkin Rice* :

	<i>Ingredients.</i>	<i>Quantity for 50 servings (gms.)</i>	<i>Quantity for 100 servings (gms.)</i>
	(1)	(2)	(3)
Rice .. .. .		4,000	8,000
Roasted Bengal gram .. .. .		500	1,000
Sweet pumpkin .. .. .		2,250	4,500
Onion .. .. .		250	500
Mustard .. .. .		15	30
Curry leaves .. .. .		250	500
Salt .. .. .		175	350
Ginger .. .. .		25	50
Chillie powder .. .. .		25	50

*Method* :

1. Cook rice for 15 minutes.
2. Add to heated oil, mustard, onion, ginger and roasted Bengal gram and fry with pumpkin.
3. Add this to the cooked rice.



## 2. Pongal :

<i>Ingredients.</i>	<i>Quantity for 50 servings (gms).</i>	<i>Quantity for 100 servings (gms).</i>
(1)	(2)	(3)
Rice .. .. .	4,000	8,000
Green gram dhal/red gram dhal	500	1,000
Oil .. .. .	350	700
Green leafy vegetables	1,500	3,000
Cumin seeds .. .. .	15	30
Ginger .. .. .	25	50
Chillie powder .. .. .	25	50
Salt .. .. .	25	50
Tomato .. .. .	1,000	2,000

*Method :*

1. Fry the dhal.
2. Take water in the ratio 1:3 (Rice, Water) and boil it.
3. Add rice and dhal to the boiling water, cook for 15 minutes, add salt and keep in hay box.
4. Heat oil and add cumin seeds, ginger, chillie powder, leafy vegetables and fry and add to the pongal.

**3. Curry leaves rice:**

<i>Ingredients.</i>	<i>Quantity for 50 servings (gms)</i>	<i>Quantity for 100 servings (gms.)</i>
(1)	(2)	(3)
Rice .. .. .	4,000	8,000
Blackgram dhal .. .. .	500	1,000
Oil .. .. .	350	700
Curry leaves .. .. .	1,000	2,000
Onion .. .. .	250	500
Tomato .. .. .	1,250	2,500
Cumin seeds .. .. .	15	30
Salt .. .. .	175	350
Chillie powder .. .. .	25	50
Mustard .. .. .	15	30

**Method:**

1. Fry and powder blackgram dhal and cumin seeds.
2. Cut curry leaves into small pieces and fry.
3. Cook rice.
4. To the cooked rice add blackgram dhal powder and curry leaves.
5. Heat oil, add mustard and mix this with rice.
6. Serve with a small tomato.

4. *Avial Rice* :

<i>Ingredients.</i>	<i>Quantity for 50 servings (gm's).</i>	<i>Quantity for 100 servings (gm's).</i>
(1)	(2)	(3)
Rice .. .. .	4,000	8,000
Oil .. .. .	350	700
Vegetables .. .. .	2,000	4,000
Green chillies .. .. .	25	50
Onion .. .. .	225	450
Coconut .. .. .	300	600
<i>Side dish —</i>		
Cumin seeds .. .. .	15	25
Curry leaves .. .. .	250	500
Green gram .. .. .	500	1,000

*Method :*

1. Half boil the rice, add all ingredients except salt, mango and tomatoes and keep in hay box.
2. Grind cumin seeds, chillies, curry leaves and coconut to a fine paste, fry in oil and mix with rice.
3. Cut mangoes and tomatoes into fine pieces and add to the rice and serve.
4. Soak green gram for 24 hours, germinate and serve as side dish, with the addition of seasoning with cumin seeds and curry leaves.

NOTE.—Vegetables like brinjal, drumstick, cluster beans, pumpkin, raw banana, mango, tomato and leafy vegetables can be used.

5. *Sambar rice* :

<i>Ingredients.</i>	<i>Quantity for 50 servings (gm.)</i>	<i>Quantity for 100 Servings (gm.)</i>
(1)	(2)	(3)
Rice .. .. .	4,000	8,000
Redgram dhal .. .	450	900
Oil .. .. .	350	700
Vegetables .. .. .	2,150	4,300
Chillie powder .. .. .	25	50
Salt .. .. .	125	250
Mustard .. .. .	20	40
Blackgram dhal .. .. .	50	100
Curry leaves .. .. .	100	200
Onion .. .. .	250	500
Tamarind .. .. .	150	300

*Method :*

1. Boil water, add dhal and cook.
2. Wash vegetables and cut into desirable pieces, chop onions and curry leaves.
3. When dhal is half cooked add rice.
4. Heat oil, add mustard, black gramdhal, curry leaves and onion and fry with vegetables.
5. Add the vegetables to the rice, dhal mixture, tamarind extract, cook for one minute and keep in hay box.

NOTE.—Instead of selecting seasonal vegetables, papaya and pumpkin can be used separately. A mixture of vegetables can also be used.

6. *Pulikulambu Rice* :

<i>Ingredients.</i>	<i>Quantity for 50 Serving (gm).</i>	<i>Quantity for 100 Serving (gm).</i>
(1)	(2)	(3)
Rice .. .. .	4,000	8,000
<b>Vegetable</b> (Seasonal availability) ..	<b>2,150</b>	<b>4,300</b>
Curry leaves .. .. .	250	500
Oil .. .. .	100	200
Chillie powder .. .. .	25	50
Salt .. .. .	150	300
<b>Mustard</b> .. .. .	<b>15</b>	<b>30</b>
Tamarind .. .. .	300	600
Blackgram dhal .. .. .	50	100
Cumin seeds .. .. .	15	30
Side dish-greengram .. .. .	450	900

*Method :*

1. Add rice to boiling water and cook for 15 minutes and keep in hay box.
2. Soak the tamarind along with salt.
3. Heat oil, add mustard, black gram dhal, curry leaves, onion and fry. Add chillie powder.
4. Add the vegetables.
5. Add tamarind extract to the fried mixture and boil.
6. Boil for 10 to 20 minutes. Mix it with cooked rice and serve.

**7. Mixed rice : Mango rice, Carrot rice :**

<i>Ingredients.</i>	<i>Quantity for 50 servings (gm).</i>	<i>Quantity for 100 servings (gm).</i>
(1)	(2)	(3)
Rice .. .. .	4,000	8,000
Roasted Bengalgram .. ..	450	900
Oil .. .. .	350	700
Mango (Carrot) .. .. .	2,250	4,500
Chillie powder .. .. .	25	50
Salt .. .. .	150	300
Mustard .. .. .	25	30
Blackgram dhal .. .. .	25	50
Curry leaves .. .. .	250	500

**Method :**

1. Cook rice in enough water and keep in hay box.
2. Scrape mango and mix with rice. Mix salt and chillie powder and add to the rice.
3. Heat oil, add mustard, black gram dhal and curry leaves, fry, add to rice and mix.

NOTE.—Carrot rice can also be done similarly.

8. *Pea rice* :

<i>Ingredients.</i>	<i>Quantity for 50 servings (gm).</i>	<i>Quantity for 100 servings (gm).</i>
(1)	(2)	(3)
Rice .. .. .	4,000	8,000
Peas .. .. .	500	1,000
Oil .. .. .	350	700
Tomato .. .. .	1,750	3,500
Mint leaves .. .. .	500	1,000
Onion .. .. .	250	500
Blackgram dhal .. .. .	25	50
Ani seeds .. .. .	15	30
Chillie powder .. .. .	25	50
Salt .. .. .	175	350
Ginger .. .. .	25	50

*Method :*

1. Soak the peas for 24 hours.
2. Cook the peas in large quantity of water enough for cooking rice.
3. When the peas is half cooked add rice.
4. Grind ginger to a fine paste.
5. Heat oil, and ani seeds, ginger, onion, chillie powder, mint leaves, fry, and mix with pea rice and keep in hay box. Mix well and serve with a tomato.

9. *Dhal rice* :

<i>Ingredients.</i>	<i>Quantity for 50 servings. (gm).</i>	<i>Quantity for 100 servings. (gm).</i>
Rice .. .. .	5,000	10,000
Red gram dhal .. .. .	750	1,500
Oil .. .. .	250	500
Mustard .. .. .	20	40
Green chillies .. .. .	10	20
Salt .. .. .	100	200
Curry leaves .. .. .	5	10

*Method* :

1. Boil water, add rice and dhal.
2. Add salt to the rice.
3. Heat oil, add mustard, green chillies, curry leaves, fry and mix with rice.

10. *Greens rice* :

<i>Ingredients.</i>	<i>Quantity for 50 servings (gm.)</i>	<i>Quantity for 100 servings (gm.)</i>
(1)	(2)	(3)
Rice .. .. .	5,000	10,000
Oil .. .. .	250	500
Leafy vegetables .. .. .	2,000	4,000
Black gram dhal .. .. .	50	100
Salt .. .. .	200	400
Green chillies .. .. .	50	100

*Method* :

1. Cook rice.
2. Clean and chop the leafy vegetables.
3. Heat oil, add mustard, black gram dhal, green chillies and fry. Add the leafy vegetables and salt and cover till it is cooked.
4. Mix with rice and serve.



11. *Tamarind rice* :

<i>Ingredients.</i>	<i>Quantity for 50 serving (gm.)</i>	<i>Quantity for 100 serving (gm.)</i>
Rice .. .. .	5,000	10,000
Oil .. .. .	300	600
Tamarind .. .. .	400	800
Salt .. .. .	250	500
Mustard .. .. .	25	50
Groundnuts .. .. .	50	100
Redgram dhal .. .. .	50	100
Red chillies .. .. .	100	200
Curry leaves .. .. .	100	200
Turmeric powder .. .. .	5	10

***Method :***

1. Soak tamarind and extract the juice.
2. Heat oil, add mustard, red gram dhal, red chillies and curry leaves, fry and add turmeric powder.
3. Add salt to the tamarind juice, and boil for 10 to 20 minutes along with the fried mixture.
4. Cook rice.
5. Add the tamarind juice to rice and **serve**.

12. *Tomato rice* :

<i>Ingredients.</i>	<i>Quantity for 50 serving (gm.)</i>	<i>Quantity for 100 serving (gm.)</i>
Rice .. .. .	5,000	10,000
Oil .. .. .	300	600
Tomato .. .. .	2,000	4,000
Onion .. .. .	200	400
Salt .. .. .	250	500
Mustard .. .. .	20	40
Blackgram dhal .. .. .	50	100
Curry leaves .. .. .	20	40
Chillies .. .. .	50	100
Coriander powder .. .. .	10	20
Turmeric powder .. .. .	5	10

*Method* :

1. Cook rice.
2. Wash the tomatoes and cut into pieces.
3. Heat oil, add mustard, black gram dhal, curry leaves, chillies, coriander powder and turmeric powder and fry. Add salt, tomatoes, onions and fry.
4. Mix with rice.

13. *Brinjal rice* :

<i>Ingredients.</i>						<i>Quantity for 50 serving (gm.)</i>	<i>Quantity for 100 serving (gm.)</i>
Rice	..	..	..	..	..	5,000	10,000
Oil	..	..	..	..	..	300	600
Brinjal	..	..	..	..	..	2,000	4,000
Onion	..	..	..	..	..	200	400
Salt	..	..	..	..	..	250	500
Mustard	..	..	..	..	..	20	40
Black gram dhal	..	..	..	..	..	50	100
Curry leaves	..	..	..	..	..	20	40
Chillies	..	..	..	..	..	50	100
Coriander powder	..	..	..	..	..	10	20
Turmeric powder	..	..	..	..	..	5	10

*Method :*

1. Cook rice.
2. Wash the brinjal and cut into pieces.
3. Heat oil, add mustard, black gram dhal, curry leaves, chillies, coriander powder and turmeric powder and fry. Add salt, brinjal, onion and fry.
4. Mix with rice.

4. *Curds rice* :

<i>Ingredients.</i>	<i>Quantity for 50 serving (gm.)</i>	<i>Quantity for 100 serving (gm.)</i>
Rice .. .. .	5,000	10,000
Oil .. .. .	100	200
Mustard .. .. .	50	100
Green chillies .. .. .	100	200
Ginger .. .. .	10	20
Salt .. .. .	50	100
Curds .. .. .	3 litres.	6 litres.

*Method :*

1. Cook rice.
2. Chop ginger and green chillies.
3. Heat oil and add mustard, when mustard cracks, add to the curds.
4. Add green chillies, ginger and salt to the curds.
5. Add the seasoned curds to rice and mix well.

15. *Wheat uppuma* :

<i>Ingredients.</i>	<i>Quantity for 50 servings (gm.)</i>	<i>Quantity for 100 servings (gm.)</i>
Broken wheat .. .. .	5,000	10,000
Oil .. .. .	250	500
Mustard .. .. .	50	100
Black gram dhal .. .. .	100	200
Curry leaves .. .. .	200	200
Onion .. .. .	300	600
Ginger .. .. .	50	100
Salt .. .. .	200	400
Green chillies .. .. .	50	100

*Method:*

1. Chop onions.
2. Heat oil, add mustard, blackgram dhal, curry leaves, chillies and fry with onions.
3. Add 1½ times water, add salt and boil.
4. Add broken wheat and stir, cover till rava is cooked.

16. *Redgram greengram payasam :*

<i>Ingredients.</i>	<i>Quantity for 50 servings (gm.)</i>	<i>Quantity for 100 servings (gm.)</i>
Redgram/Green gram dhal .. ..	500	1,000
Milk .. .. .	2 lit.	4 lit.
Jaggery .. .. .	1,500	3,000
Cardamom .. .. .	50	100

*Method:*

1. Fry greengram|redgram dhal till they become golden brown.
2. Cook in  $1\frac{1}{2}$  times of water.
3. When dhal is cooked, powder jaggery and add.
4. Add water for dissolving the jaggery.
5. Add milk when the jaggery is dissolved.
6. When boiled, add powdered cardamom.

17. *Sweet pongal :*

<i>Ingredients.</i>	<i>Quantity for 50 servings (gm.)</i>	<i>Quantity for 100 servings (gm.)</i>
Raw rice .. .. .	2,000	4,000
Jaggery .. .. .	2,000	4,000
Green gram dhal .. .. .	300	600
Cardamom .. .. .	50	100
Dalda/ghee .. .. .	200	400
Coconut .. .. .	1	2

*Method:*

1. Fry dhal till golden brown.
2. Boil two times water, and add rice and dhal.
3. When  $\frac{3}{4}$  cooked, powder jaggery and add with ghee.
4. Cut coconut into small cubes, fry in dala|ghee.
5. Powder cardamom and add.

18. *Lime rice* :

<i>Ingredients.</i>	<i>Quantity for 50 servings (gm.)</i>	<i>Quantity for 100 servings (gm.)</i>
Rice .. .. .	5,000	10,000
Oil .. .. .	300	600
Red chillies .. .. .	100	200
Salt .. .. .	250	500
Mustard .. .. .	25	50
Bengal gram dhal .. .. .	50	100
Black gram dhal .. .. .	100	200
Curry leaves .. .. .	100	200
Lime .. .. .	20 limes	40 limes
Turmeric powder .. .. .	25	50

*Method:*

1. Cook rice.
2. Squeeze lime, add salt to the juice and mix with rice.
3. Heat oil, add mustard, blackgram dhal, red chillies, Bengalgram dhal and curry leaves and fry and then add turmeric powder. Add all these to rice and mix.

## APPENDIX I.

## MEMBERS OF HIGH LEVEL COMMITTEE FOR CHIEF MINISTER'S NUTRITIOUS MEAL PROGRAMME FOR CHILDREN.

Honourable Chief Minister—*Chairman*.

Honourable Minister for Nutritious Meal—*Vice Chairman*.

*Members.*

1. Honourable Minister for Finance.
2. Honourable Minister for Education.
3. Honourable Minister for Social Welfare.
4. Chief Secretary to Government.
5. Commissioner and Secretary to Government, Finance Department.
6. Commissioner and Secretary to Government, Education Department.
7. Commissioner and Secretary to Government, Social Welfare Department.
8. Commissioner and Secretary to Government, Rural Development Department.
9. Commissioner and Secretary to Government, Municipal Administration and Water Supply Department.
10. Commissioner and Secretary to Government, Food and Consumer Protection Department.
11. Commissioner and Secretary to Government, Public (CMNMP) Department.
12. Commissioner and Secretary to Government, Planning and Development Department.

13. Commissioner and Secretary to Government, Health and Family Welfare Department.
14. Commissioner and Secretary to Government, Co-operation Department.
15. Director of Social Welfare, Madras-35.
16. Director of School Education, Madras-6.
17. Chairman, Tamil Nadu Civil Supplies Corporation Limited, Madras-10.
18. Registrar of Co-operative Societies, Madras-5.
19. Director of Municipal Administration, Madras-5.
20. Special Officer, Corporation of Madras, Madras-3.
21. Commissioner, Corporation of Madras, Madras-3.
22. Director of Rural Development, Madras-104.
23. Thiru G. Swaminathan, M.P., 227, Kilpauk Garden Road, Madras-600 010.
24. Thirumathi Tara Cherian, 5, Victoria Crescent, Egmore, Madras-600 008.
25. Dr. Rajammal Devadoss, Dean for P.G. Studies, Sri Avinashilingam Home Science College for Women, Coimbatore.
26. Dr. Aram, formerly Vice-Chancellor, Gandhigram Rural Institute of Higher Education, Gandhigram Post, Anna district.
27. Thiru Sivanthi Adhithan, 4, Poes Garden, Madras-600 086.
28. Thiru B. Nagireddy, Vahini Studio, Vadapalani, Kodambakkam, Madras.
29. Selvi Jayalalitha, M.P., 'Veda Nilayam', 36, Poes Garden, Madras-600 086.



30. Dr. Habibullah, M.B.B.S., DCH., Children Specialist, Rotarian, Thuckalay, Kanyakumari district.
31. Thiru G. Varadaraju, M.P., No. 14, Circuit House Road, Coimbatore-10.
32. Thiru L. Gnanaraj, formerly President, Tiruchirappalli District Traders' Association, Tiruchirappalli.
33. Thiru G. K. Devarajulu, Managing Director, Lakshmi Mills, Coimbatore.
34. Thirumathi Leelavathi Dharmar, M.A., The Coronation Litho Works, Sivakasi, Kamarajar district.

## APPENDIX J.

## SCHEDULE FOR CLINICAL ASSESSMENT.

Date:

Name

Age

Sex (M|F)

Height (in cm)

Birth Order:

Sibs—Boys      Girls

Weight (in kg.)

Arm circumference (cm.)

Chest circumference (cm.)

Head circumference (cm.)

Name of the father

or

Guardian

Occupation

Address

Size of the family

Income|month (Rs.)

*CLINICAL ASSESSMENT* (tick wherever relevant)

- I. Healthy and free from any deficiency symptoms.
- II. (a) Poor musculature
- (b) Deficient subcutaneous fat

(c) Mild anemia.

(d) Lack of interest in surroundings.

(e) Mild signs of not more than one of the specific nutritional disorders or deficiencies mentioned under (3) of III.

III. 1. (a) Nutritional oedema

(b) Gross muscular wasting

(c) Xerosis of the cornea

2. (a) Tenderness of the calf

(b) Red and/or Raw tongue|Glazed tongue

(c) Angular Stomatitis

(d) Angular conjunctiva

3. (a) Xerosis or pigmentation of conjunctiva

(b) Bitot's spots

(c) Caries

(d) Dry|Or rough skin

(e) Crazy pavement skin

(f) Hyperkeratosis

Special remarks

Signature of the Examiner

Date

## APPENDIX K.

SCHEDULE FOR THE ASSESSMENT OF NUTRITIONAL  
KNOWLEDGE OF CHILDREN.

1. Name of the Interviewer:
2. Name of the Interviewee (Child):
3. Name of the School:
4. Class:

*Tick the correct answer—*

1. Food that prevents blindness is
  - (a) Carrot
  - (b) Beetroot
  - (c) Cabbage
2. Food for proper blood circulation is
  - (a) Greens
  - (b) Tomato
  - (c) Carrot
3. Papaya is good for
  - (a) Growth
  - (b) Eye sight
  - (c) Strength of the body
4. Nellikai is essential for
  - (a) Growth
  - (b) Eye sight
  - (c) Preventing bleeding gums
5. List five foods which are essential for good health

## APPENDIX L.

SCHEDULE TO ELICIT THE VIEWS OF PARENTS ON  
THE CMNMP.

1. Name of the Interviewer:
2. Name of the Interviewee:
3. Occupation:
4. Address:
5. Age of the child:
6. Sex:
7. Since how many months is your child participating in the programme?
8. How many days in a week does your child generally eat the school meal?
  - (a) Seldom (one to three days):
  - (b) Sometimes (three to four days):
  - (c) Regularly:
  - (d) Never:
9. Is enough food being given to him in the school?
 

Yes (            )	No (            )
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10. Do you feel the food served is nutritious?
 

Yes (            )	No (            )
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11. Does your child discuss about the food served to him in the school with you?
 

Yes (            )	No (            )
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## APPENDIX. M.

SCHEDULE TO ASSESS THE OPINION OF PARENTS  
ABOUT THE CMNMP.

Name of the child:      Male|Female                      Age:

Name of the school:      Class

House address:

Occupation of parent:

For how long your child is participating in the feeding programme?

What are the changes you observe in your child after participating in the programme.

<i>Serial numbers.</i>	<i>Changes.</i>	<i>Before.</i>	<i>After.</i>
1	Growth Height Weight Others		
2.	<i>Clinical picture :</i> Hair Eye sight Teeth Gums Lips Skin Hands Legs Others		

3. *Academic activities:*

Desire to go to school

Writing

Reading

Memory power

Singing

Going to school continuously

4. *Playing Habits:*

Mingling habit

Friendliness

Happiness

5. *Morbidity:*

Cold

Fever

Cough

Chickenpox|measles

Diarrhoea

Ulcers

Eye diseases

6. *Activeness:*

Enthusiasm in work

Helping in work at home



## APPENDIX N.

SCHEDULE TO ELICIT THE VIEWS OF CHILDREN ON  
THE CMNMP.

1. Name of the interviewer:

2. Name of the child:

Age

Sex

Class

3. Name of the school:

4. Since how many months are you participating in the programme?

5. How many days in a week do you generally eat the meal in the schools?

(a) Seldom (one or two days):

(b) Sometimes (3 to 4 days):

(c) Regularly:

(d) Never:

6. On the days when you take the school meal do you take any meal at home?

Yes (            )

No (            )

7. Is enough food given to you in the school?

Yes (            )

No (            )

8. How much of food given at the school is eaten by you?  
(All most all of it)

Half

Less than half

