

# Poverty and Malnutrition

M. Kaliamoorthi

---

---

Language in India [www.languageinindia.com](http://www.languageinindia.com) ISSN 1930-2940 Vol. 13:4 April 2013

---

---

## Abstract

The problem of poverty is considered as the biggest challenge to development planning in India. High poverty is synonymous with poor quality of life, malnutrition, under-nutrition, nutrition insecurity, food insecurity and low human resource development. Due to chronic poverty even after 65 years of independence, India is still a country in developmental transition and continues to battle with conditions related to malnutrition and under nutrition.

Approximately 50% of pre-school children and 30% of adults are under-nourished and over 70% of women and children suffer from anemia as judged by anthropometric indices. Every third child is born with low birth weight and may have impaired mental and physical development and immunity. Apart from human suffering caused due to morbidity and mortality, malnutrition is severely denting India's productivity and development and adding to health expenditure.

The economic cost of hunger and malnutrition as reflected in lost productivity, illness and death, is extremely high. Undernourishment significantly lowers physical ability, cognitive development and learning achievement, resulting in lower productivity.

Malnutrition is often considered as both an outcome and manifestation of chronic poverty. "Being poor almost always means being deprived of full nutritional capabilities" (Osmani 1992).

The term *malnutrition* includes both under-nutrition in terms of proteins, calories, fats, vitamins and minerals and over-nutrition leading to obesity. If we apply the concept of Cause and Effect

Language in India [www.languageinindia.com](http://www.languageinindia.com) ISSN 1930-2940 13:4 April 2013

C. Subburaman, Ph.D. (Ed.) *Health and Medical Care Services: Claims on National Resources*

M. Kaliamoorthi

Poverty and Malnutrition

analysis to the problem under study, chronic poverty and income inequality form the basis for malnutrition-under-nutrition and over- nutrition.

### **Objectives of the Study**

1. To ascertain the causes and consequences of malnutrition in India.
2. To appraise the efficacy of various schemes and programmes of direct nutrition interventions aimed at ensuring nutrition security.
3. To analyze the performance of Government of Tamilnadu in ensuring nutrition security among children
4. To suggest meaningful measures to further improve the Mid-Day Meals scheme of Government of Tamil Nadu and make it as a trend setter in the international arena.

### **Methodology**

The study was based on a review of already existing material on poverty and malnutrition. In order to make a fair assessment of the policies and programmes aimed at ensuring nutrition security, a desk review of the relative policy documents reflecting National policies on nutrition and various progressive policies and programmes of Government of Tamilnadu was carried out. Research methods required at this stage included review of relevant literature on nutrition and reliable primary as well as secondary data analysis published by authentic sources. The present study is based on descriptive method of research, by way of investigating all the proven facts with meaningful interpretation to arrive acceptable solutions.

### **Malnutrition Due to Low Intake of Income-Elastic Foods**

Malnutrition has a complex etiology and its prevention requires Awareness, and Access to nutritious balanced diet at Affordable cost.

**Language in India** [www.languageinindia.com](http://www.languageinindia.com) ISSN 1930-2940 13:4 April 2013

**C. Subburaman, Ph.D. (Ed.) *Health and Medical Care Services: Claims on National Resources***

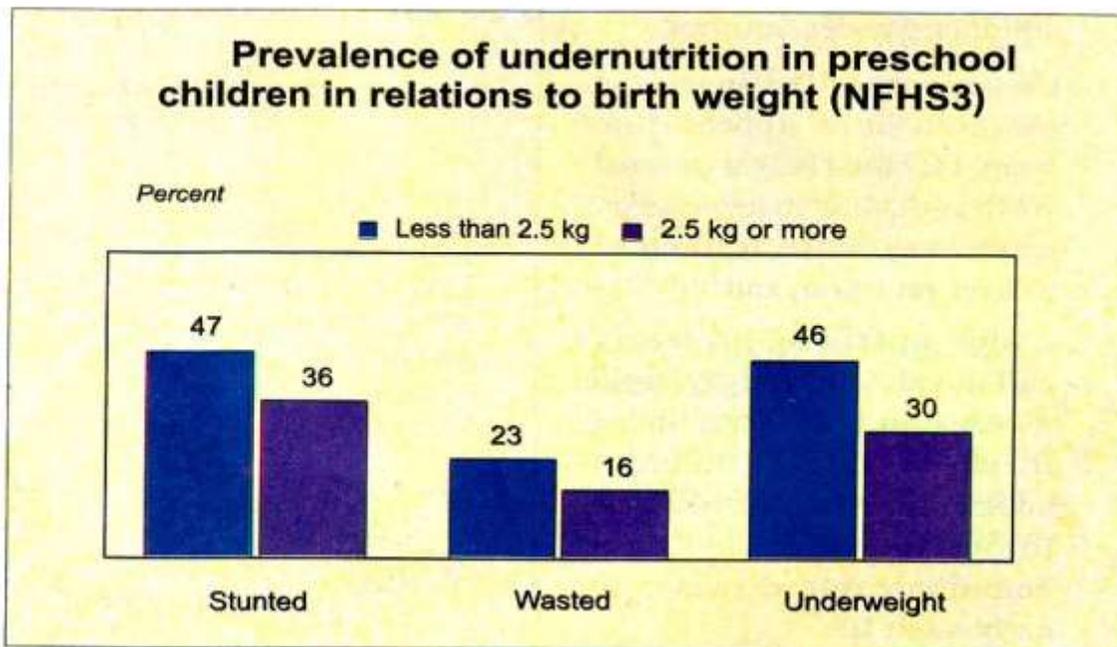
M. Kaliamoorthi

Poverty and Malnutrition

Nationwide diet surveys show that Indian diets are qualitatively more deficient in vitamins and minerals(hidden hunger)than proteins due to low intake of income-elastic foods like vegetables, fruits, pulses and foods of animal origin.

### Under-nutrition

Over the past decade, there has been a decrease in stunting among children in rural India, but inadequate calorie intake and chronic energy deficiency levels remain steady. Today, child malnutrition is prevalent in 7 percent of children under the age of 5 in China and 28 percent in sub-Saharan African countries compared to a prevalence of 43 percent in India. Under-nutrition includes both protein-energy malnutrition and micronutrient deficiencies. Undernourishment not only affects physical appearance and energy levels, but also directly affects many aspects of the children’s mental functions, growth and development which have adverse effects on children’s ability to learn and process information and grow into adults that are able to be productive and contributing members of society. Undernourishment also impairs immune function leaving them more susceptible to infection. Child malnutrition is responsible for 22 percent of India’s burden of disease.



### Over-nutrition

**Language in India** [www.languageinindia.com](http://www.languageinindia.com) ISSN 1930-2940 13:4 April 2013  
**C. Subburaman, Ph.D. (Ed.)** *Health and Medical Care Services: Claims on National Resources*  
M. Kaliamoorthi  
Poverty and Malnutrition

A large number of population suffers from malnutrition, while more than 100 million people (11% of India population) in India are over – nourished. Over nutrition can be defined as consuming either too much calories or the wrong types of calories such as saturated fat, transfat or highly refined sugar which leads to obesity and many other chronic diseases. For example, there were over 30 million people with diabetic in 1985 and by the end of the year 2012., India is projected to have 50.8 million diabetics. India is hence considered as the country with the largest population of diabetics. This diabetes (diabetes mellitus) is one of the diseases closely associated with overweight. The direct cause of overweight in India includes lack of physical activity due to sedentary life-style, loss of traditional diet, faulty diet, high stress etc., Over-nutrition is most prevalent in the cities among affluences.

Computed energy requirements for current average weight in moderately active individuals

<b>Table: computed energy requirements for actual current weight in different groups</b>				
<b>Group</b>	<b>Mean wt. NNMB</b>	<b>Req. for mean Wt.</b>	<b>Actual intake</b>	<b>Gap</b>
Adult man	51	2346	2000	-346
Adult woman	46	1886	1738	-148
Pregnant		2236	1726	-510
Lactating		2386	1878	-518
<b>Children</b>				
1-3 years	10.5	840	714	-126
4-6 years	14.6	1095	978	-117
7-9 years	19.7	1379	1230	-149
<b>Boys</b>				
10-12 years	26.6	1729	1473	-256
13-15 years	36.8	2208	1645	-563
16-17 years	45.7	2514	1913	-601
<b>Girls</b>				
10-12 years	26.7	1469	1384	-85

**Language in India** [www.languageinindia.com](http://www.languageinindia.com) ISSN 1930-2940 13:4 April 2013

**C. Subburaman, Ph.D. (Ed.)** *Health and Medical Care Services: Claims on National Resources*

M. Kaliamoorthi  
Poverty and Malnutrition

13-15 years	36.9	2030	1566	-464
16-17 years	42.6	2130	1630	-500

of varying age, their actual food intake as reported by National Nutrition Monitoring Bureau and the average gap between intake and expenditure is given in Table 1. The gap between the requirements and the intake is highest in the adolescent girls and boys. Viewed in this context the initiation of the MDM for the upper primary school children is an appropriate step to bridge the gap in adolescent girls.

### **Adult Malnutrition**

Adult malnutrition can be measured by Body Mass Index(BMI) and a BMI below 18.5 indicates chronic malnutrition. Approximately 37% of adult Indians,50% of adults belonging to scheduled tribes and 60% of adult Indians belonging to scheduled castes have a BMI below 18.5,which makes them chronically undernourished.

### **Malnutrition among Elderly**

Protein energy malnutrition (PEM) is a common, potentially serious, and often under-diagnosed condition among elderly individuals. Poverty is the predominant social cause for protein energy malnutrition and weight loss among elderly individuals. When physicians prescribe expensive medications, elderly individuals with limited income and resources often reduce food budget to afford their medications.

### **Steps Taken in India to Address Child Malnutrition**

The Government of India has launched several programs to converge the growing rate of undernourished children. They include ICDS, NCF and National Rural Health Mission.

### **Existing Government Interventions (Listed By Life Cycle Focus Area)**

BENEFICIARIES	SCHEMES
Pregnant and Lactating mothers	ICDs, RCH-II, NRHM, JSY, Indira Gandhi Matruva Sahyog Yojamana (IGMSY) – The CMB Scheme
Children 0-3 years	ICDS, RCH-II, NRHM, Rajiv Gandhi National crèche scheme

**Language in India** [www.languageinindia.com](http://www.languageinindia.com) ISSN 1930-2940 13:4 April 2013

**C. Subburaman, Ph.D. (Ed.)** *Health and Medical Care Services: Claims on National Resources*

M. Kaliamoorthi

Poverty and Malnutrition

Children 3-6 years	ICDs, RCH-II, NRHM, Rajiv Gandhi Nationalk Creche Scheme, Total Sanitation Campaign (TCSC) National Rural Drinking Water Programme (NRDWP)
School going children 6-14 years	Mid Day Meals, Sarva Shiksha Abhiyan
Adolescent Girls 11-18 years	Rajiv Gandhi Scheme for the Empowerment of Adolescent Girls (RGSEAG), Kiswhori Shakti Yojana, Total Sanitation Campaign (TSC), National Rural Drinking Water Programme (NRDWP)
Adults	MGNREGS, Skill Development Mission, Women Welfare and Support, programme, Adult Literacy Programme, TPDS, AAY, Old and Infirm persons Annapurna, Rashtriya Krishi Vikas Yojana, Food Security Mission, Safe Drinking Water and Sanitation Programmes, National Horticulture Mission, National Iodine Deficiency Disorders Control Programme (NIDDCP), Nutrition Education and Extension, Bharat Nirman, Rashtriya Swasthya Bima Yojana
Adapted from overcoming the Curse of Malnutrition in India: A Leadership Agenda for Action, First Edition: First Edition: September 2008, The Coalition for Sustainable Nutrition Security in India	

### **Nutrition Security in Tamilnadu – Model of Excellence**

Tamil Nadu is the pioneer state in implementing the massive programme of providing Nutritious Mid-Day Meal to several lakhs of school children. The Mid Day Meal Programme was introduced in 1925 for the disadvantaged children in Madras Municipal Corporation and in the year 1956, the programme was introduced in schools. On 1<sup>st</sup> July 1982, the ‘Puratchi Thalaivar MGR Nutritious Meal Programme’ was introduced and initially implemented in Child Welfare Centres for pre-school children in the age group of 2 to 5 years and to the primary school children in the age group of 5 to 9 years in rural areas. The programme was subsequently extended to Nutritious Meal Centres in urban areas from 15<sup>th</sup> September 1982 and later extended to school students of age group of 10 to 15 years from September 1984. The children in the age group of 2 to 5 years and the students in 1<sup>st</sup> to 5<sup>th</sup> standard receive nutritious meal throughout the year (365 days) and those in standard 6<sup>th</sup> to 10<sup>th</sup> receive the meal on all school working days (220 days approximately). The Nutritious Mid Day Meal is freshly cooked and served hot to all

**Language in India** [www.languageinindia.com](http://www.languageinindia.com) ISSN 1930-2940 13:4 April 2013

**C. Subburaman, Ph.D. (Ed.)** *Health and Medical Care Services: Claims on National Resources*

M. Kaliamoorthi  
Poverty and Malnutrition

willing children in the school premises itself, where they are studying. The scheme is successfully implemented throughout Tamil Nadu, to improve the nutrition status among school children.

The foremost objectives of the scheme are:

- Eradicating extensive poverty and hunger among children particularly economically disadvantaged so as to improve their nutritional and health status.
- Reducing the child mortality, morbidity and mal-nutrition.
- Combating all diseases including those resulting due to deficiencies.
- By providing Mid Day Meals to the children especially in rural areas, in order to motivate them to attend the School regularly, and it will also reduced the “Child Labour” in Tamil Nadu.

Hot cooked, wholesome food is being served weekdays as per details given below:

Day	Menu
Monday	White Rice, Vegetable Sambar with one boiled egg (one banana for those who do not eat egg)
Tuesday	White Rice, Vegetable Sambar with one boiled egg (one banana for those who do not eat egg) and 20 gms of boiled green gram or Bengal gram alternatively
Wednesday	White Rice, Vegetable Sambar with one boiled egg (one banana for those who do not eat egg)
Thursday	White Rice, Vegetable Sambar with one boiled egg (one banana for those who do not eat egg)
Friday	White Rice, Vegetable Sambar with one boiled egg (one banana for those who do not eat egg) and 20 gms of boiled potato.

### **Amma Recipe to Ensure Nutrition**

**Language in India** [www.languageinindia.com](http://www.languageinindia.com) ISSN 1930-2940 13:4 April 2013

**C. Subburaman, Ph.D. (Ed.) *Health and Medical Care Services: Claims on National Resources***

M. Kaliamoorthi

Poverty and Malnutrition

According to the details of mid-day meals to be served in State run schools announced by Chief Minister of Tamil Nadu, students would get 13 varieties of rice and four different types of egg masalas. The menu was decided by the Chief Minister herself based on recommendations and suggestions made by a team of nutrition experts and eminent chefs. Vegetable biryani, channa pulav, tomato rice, curry leaf rice, sambar rice, mixed vegetable rice, tamarind rice and lemon rice are some the items to be served on alternate days. The Chief Minister has directed to serve four types of exotic egg masalas with rice varieties in the nutrition's meal programme. In order to increase enrolments in schools, whittle down the drop-out rate and improve nutrition status physical and mental health of student's delicious menu was included in the NMP.

### **Strategic Choices and Suggestions to Uphold Nutrition Security**

In order to uphold nutrition security at National level and further improve the commendable performance of Government of Tamil Nadu in the area of Nutrition security, the under noted strategies and suggestions may be considered by the policy makers and planners for meaningful analysis and meticulous compliance.

1. Distribution of salt fortified with adequate iron and iodine through Anganwadi centres and Nutritious Meal Centres.
2. Effective distribution of iron folic acid tablets and de-worming medicines to all children, adolescent girls and lactating mothers.
3. Half yearly distribution of massive dose of vitamin a in areas, where vitamin A deficiency is a public health problem.
4. Increasing food production/nutrition oriented crops using proven new technologies.
5. Creating Nutrition awareness by way of popularising the dietary guidelines through electronic media and educational channels.
6. Strengthening the Public Distribution System and broadening the basket with nutritious millets, pulses and oils.

**Language in India** [www.languageinindia.com](http://www.languageinindia.com) ISSN 1930-2940 13:4 April 2013

**C. Subburaman, Ph.D. (Ed.) *Health and Medical Care Services: Claims on National Resources***

M. Kaliamoorthi

Poverty and Malnutrition

7. Establishing kitchen gardens at all Anganwadi centres and Nutritious Meal Centres to get fresh vegetables and green leafy vegetables for Mid Day Meals scheme and reduce the cost to exchequer.
8. Already banana is being offered to children who do not eat eggs by Government of Tamil Nadu. In addition to bananas, cost conscious seasonal fruits may be added to further improve the nutrition and micronutrients.
9. Nutrition education should form a vital component in the school syllabus to create awareness among children.
10. Export of soya bean products should be stopped till our country achieve a considerable increase in the production of nutritious pulses.
11. Soya bean can be used to fortify wheat flour to improve the nutrition content.
12. Government of India should adopt a fair and transparent policy to allot foodgrains to all the States purely based on need and the number of BPL families to ensure fair play.
13. Government of India should extend need based financial assistance to all the State governments to modernise the kitchens with gas connections at all Anganwadi centres and Nutritious Meal Centres.
14. Introducing innovative Nutrition Supplementation schemes to schools and Nutritious meal centres located at Primitive Tribal Group (PTG) Settlements.
15. Establishing ICDS centres as a priority in all Primitive Tribal Group (PTG) settlements and the most marginalised Scheduled Castes (SC) settlements without any ceiling on number of minimum children.
16. Improving people's purchasing power through appropriate programmes including 'Food for Work' programme.
17. Increasing production of coarse grains to meet the energy requirements of the BPL families at a lower cost.
18. Ensuring paradigm shift from food security to nutrition security.
19. Improving the availability of vegetables and fruits at an affordable cost throughout the year in urban and rural areas.

20. Increasing the per capita availability of food grains to eradicate hunger and reduce the level of malnutrition and under-nutrition among vulnerable groups
21. Introducing green leafy vegetables to all the children under Nutritious Meals Scheme thrice a week.
22. Providing Take- Home nutritious food supplements to children belonging to BPL families in the age group of 6 to 36 months.
23. As a natural product, *spirulina*, provides a comprehensive solution to malnutrition and under-nutrition. Providing one gram of spirulina per day to a child for a few weeks is a sustainable solution to combat the problem of malnutrition.
24. In order to eradicate twin problems of malnutrition and hunger, Government of India should devise plans to expand cultivation of maize throughout the country.
25. Government of India should devise a scheme to plant fruit trees on degraded forests and homestead lands that belong to or have been allotted to the poor. By way of implementing this meaningful scheme, Government can enrich poor people diet with adequate nutrition.
26. Restructuring I C D S is the need of the hour. The focus of I C D S should be health and nutrition education, encouraging women to breastfeed exclusively for first six months and after that to add semi-solid food, four to six times a day in appropriate quantities.
27. In the state of Jharkhand, for a paltry sum of Rs 5, nutritious hot cooked full mid-day meals is being served to destitute individuals, deserving elderly and urban homeless poor under, "Mukhyamantri Dal-Bhatt Yojana" scheme. Government of Tamil Nadu should examine the feasibility of extending a similar improved scheme for the benefit of deserving poor.
28. Malnutrition Treatment Centres (MTC) have been established in the state of Jharkhand to ensure nutrition security. Government of Tamil Nadu should formulate a better scheme in this regard to make the position of the state ever high as never before in terms of nutrition security.
29. Ensuring that economic growth and poverty reduction policies reach the poor

30. An evidence-based, research-intensive approach which has shown Proven success in developed countries should be actively considered for meticulous compliance to uphold nutrition security.

## **Concluding Comments**

India will have to define the “Indian way” to nutrition improvement, which may involve different approaches in different regions and states. It is a great challenge to properly target poor and vulnerable groups in order to improve their nutrition status. Solutions can only become effective if the underlying causes of malnutrition – such as poverty, lack of income, economic and social vulnerability, marginalization – can be tackled as well. In the Indian context the problem of malnutrition and under-nutrition can be viewed as an opportunity to demonstrate how the country can cope with major challenges in nutrition and health sectors effectively.

---

---

## **References**

- [1]. Arpitha Sharma,(2012),Nutrition Policy and Strategy Status of Malnutrition in India,Volume.60 No 11,Kurukshetra,September 2012
- [2]. Jothi Nirmala.B ( 2012),National Programme of Mid Day Meal in Schools-Annual Work Plan & Budget-2012-13,Department of Social Welfare & NMP,Government of Tamil Nadu
- [3]. Prema Ramachandran,( 2012),Malnutrition in Indian Children,yojana,November 2012.
- [4]. Professor M.Vijayan(2009)-Nutrition security for India-Issues and Way Forward-Indian National Science Academy
- [5]. Ramzi.R.Hajjar - Malnutrition in Aging-The Internet Journal of Geriatrics and Gerontology-ISSN :1937-8211
- [6]. Sunny Jose (2011)-Adult Under-nutrition in India-Volume no 29-Economic and Political Weekly-July 16 2011
- [7]. Urs Heierli (2007)-Sustainable approach to combat malnutrition - Swiss Agency for Development and Co-operation, Switzerland

**Language in India** [www.languageinindia.com](http://www.languageinindia.com) ISSN 1930-2940 13:4 April 2013

**C. Subburaman, Ph.D. (Ed.) *Health and Medical Care Services: Claims on National Resources***

M. Kaliamoorthi  
Poverty and Malnutrition

[8]. Vivian Fernandes (2012)-Steeling up Gujarath with a bit of iron-Volume 5-Governance  
now-Sep 16 to 30 2012.

[9]. Vibha Varshney, (2012), Cradles of Hope, Down to Earth, March 1 -15, 2012

=====  
M. Kaliamoorthi  
Ph.D. Scholar  
Department of Political Science  
Madurai Kamaraj University  
Madurai 625 021  
[mk\\_ethics@yahoo.com](mailto:mk_ethics@yahoo.com)

**Language in India** [www.languageinindia.com](http://www.languageinindia.com) ISSN 1930-2940 13:4 April 2013  
**C. Subburaman, Ph.D. (Ed.)** *Health and Medical Care Services: Claims on National Resources*  
M. Kaliamoorthi  
Poverty and Malnutrition