

MALNUTRITION: AN ECONOMIC ANALYSIS

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INTRODUCTION

Health is regarded as a vital component in the growth and development of any country. Healthy children are said to have better school attendance and learning, which later translates into better earning capacity. In other worlds, ill health can lead to capability deprivation and hence poverty. Causing a substantial loss of financial and human resources. Poverty caused by poor health further reinforces ill health; poverty leads to low food intake, nutritional deficiencies, deprivation of basic amenities like sanitation and clean drinking water cause infections. The poor are more exposed to environmental risks (poor sanitation) and less informed about the benefits of health lifestyles, and has less access to quality healthcare.

Today hunger and malnutrition major problems of Indian economy. Hunger is defined by the hunger task force (2003) as a condition in which people lack the basic food intake to provide them with the energy and nutrients for fully productive lives. Hunger is most directly apparent in inadequate food intake and a poor diet and is directly related to malnutrition. Over time, the combination of low birth weight and high rates of infection can result in the stunted growth of children. The most extreme manifestation of continued hunger and malnutrition is mortality.

In a wider context, malnutrition emanates from eating too much or eating too little or eating an unbalanced diet that lacks necessary nutrients. Since the last two are major nutritional problems in India. This research paper focuses primarily on them. Eating too little or eating unbalanced diet leads to under nutrition. Which is defined as the failure to consume adequate energy, protein, and micronutrients to meet the basic requirements for body maintenance, growth, and development. This in turn leads to nutrition related problems characterized by low height for age (Stunting) and/or low weight for height (wasting) and/or low weight for age (underweight).

OBJECTIVES OF THE STUDY

- 1) To study the conceptual framework of malnutrition
- 2) To study the nutritional status of children SARC and BRIC perspective.
- 3) To analyse the Indian malnutrition and nutritional status.
- 4) To make suggestions to improve the nutritional status.

RESEARCH METHODOLOGY

The present research paper fully depends on secondary data. The secondary data have been collected from Books, Journal, Report, Internet, etc.

MALNUTRITION: A CONCEPTUAL AND EMPIRICAL ANALYSIS

Conceptual issues on malnutrition can be better understood through the feedback loops in the human development process of the microeconomic level.

Table No. 1
Feedback Loops in the Human Development Process : At the Micro Economic Level.

Social Services/ Inputs /Processes	Human Development Outcomes/Outputs				
	Knowledge	Family Size	Health Status	Nutritional Status	Healthy Living Condition
Education	↙	↙	↙	↙	↙
Family Planning	↙				
Health	↙	↙		↙	↙
Nutrition	↙	↙	↙		
Water & Sanitation					

Source : Mehrotra and Delamoncia

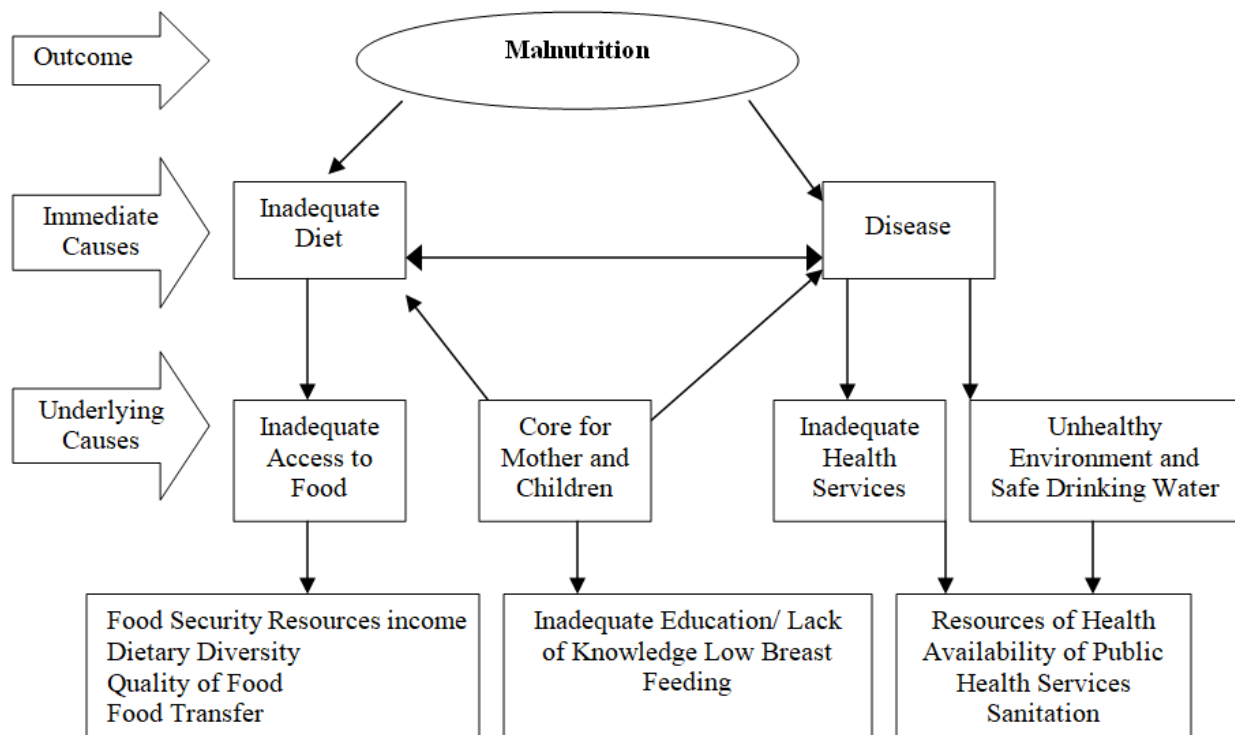
That shows how various parameters can act both as inputs as well as outcomes in the human development process. For instance, better educated people, particularly mothers, practice better, sanitation and provided good nutrients to children that helps in development of the child's brain during early childhood, and hence improves

his/her learning ability similarly, access to safe drinking water and adequate sanitation facilities reduce morbidity from infectious diseases and increase nutritional status of children.

Malnutrition reflects an imbalance of both macro-and micro nutrients that may be due external environment. Poor feeding practices during infancy and early childhood. Resulting in malnutrition, contribute to impaired cognitive and social development, poor school performance and reduce productivity in later life. Malnutrition, therefore, is a major threat to social and economic development as it is among the most serious obstacles to attaining and maintaining the health of this important age group. There is a critical link between health and good nutrition. Interventions in health promote good nutrition, and interventions in nutrition promote good health.

When poor nutrition starts in utero, it extends throughout the life cycle, particularly in girls and women. This not only amplifies the risks to the individuals health, but also increases the likelihood of damage to future generations, through further foetal repudiation. Poor nutrition of the mother during pregnancy leads to low birth weight (LBW) of the body. LBW increases the risk of infant and child mortality and those infants who survive are usually undernourished, fall ill frequently, and fail to develop optimally, both physically and mentally. Further under nourished adults are functionally impaired and unable to sustain productive physical activity throughout the day. The lack of nutritional requirements leads to sluggish recovery from illness. Malnutrition can also be linked the growing HIV/AIDS pandemic as malnutrition makes adults more susceptible to the virus. The conceptual framework for the calls of malnutrition is presented in figure 1

Conceptual Framework: Determinants of Malnutrition



Source : Adapted from UNICEF (1990); Jonson (1993), Smith and Haddad (2000), and Mehrotra (2003).

Nutritional Status of Children : SAARC and BRIC Countries

A comparison of India's hunger indicators with international indicators presents a dismal picture. As compared to Brazil, Russia and China (BRC) of the Brazil, Russia, India and China (BRIC) nations and other south Asian Association for Regional Cooperation (SAARC) countries, India's performance is the worst in terms of low birth weight¹, Underweight Children² and Waasting³ for instance, 43 percent of under five children in India were underweight during the period 2000-07, which is the worst in South Asia and worse than the worst performer in the Sub-Saharan African region. Even the last developed countries were found to have performed better than India. In stark contrast, China had only 6 percent under five children who were underweight during this period and Brazil had only 4 percent. Similarly, among SAARC countries India trails behind Sri Lanka, Nepal and Pakistan

Table No. 2

Nutritional Status of Children SAARC and BRIC Countries 2000-07

No.	Countries	Low Birth Weight	Under Five Under Joint Weight Children (WHO Ref. Population)	Wasting (moderate and severe) (NCHS/WHO)	Stunting (moderate and severe) (NCHS/WHO)
	BRIC				
i	India*	28	43	19	38
	Brazil	8	4	-	-
ii	China	2	6	-	11
iii	Russia	6	-	1	4
	SAARC				
i	Afghanistan	-	33	7	54
ii	Bangladesh	22	41	16	36
iii	Bhutan	13	14	3	40
iv	Maldives	22	-	13	25
v	Nepal	21	39	12	43
vi	Pakistan	19	31	13	37
vii	Sri Lanka	22	23	14	14

Source : The State of the Worlds Children Report, UNICEF 2009.

Note : * = Data reported in this table for India's is not strictly comparable with data reported by NFHS- Data Not Available

As per the nutrition report (2009) of the National Family and Health Survey 3 (NFHS 3), the average of 26 Sub-Saharan African countries in terms of under nourished children under five years was only 25 percent, almost half the Indian average of 48 percent. In fact, except for Kerala, Himachal Pradesh, Punjab, Sikkim, Manipur and Mizoram, all other Indian states were either as per or below the average of Sub-Saharan African countries.

Overall Performance : Malnutrition in India :-

- 1) India is the worst performance in terms of low birth weight, underweight, and wasting children in BRIC and SAARC countries.
- 2) Nearly half of India's children under three are malnourished
- 3) There are wide gaps between states and rural and urban areas with respect to cereal consumption.
- 4) A very high percentage (21.5 percent) of babies in India are born with low birth weight.
- 5) Child malnutrition is higher in rural areas than in urban areas
- 6) There has been a significant decline in stunted children in India (from 52 percent in 1992-93 to 38.4 percent in 2005-06).
- 7) The prevalence of anemia among adolescent girls is very high with severe anemia being more prevalent among them than among pre-school children.
- 8) Anemia among children has increased over the years with rising rural-urban disparity.
- 9) Among the industrial high per capita income states, Gujarat fares the worst in terms of overall hunger malnutrition.

With Respect of Interstate Disparities

- 1) There are high interstate disparities with respect to overall hunger in India, with the poor states at the bottom.
- 2) There is high concentration of adult malnutrition (BMT < 18.5) among the poor states.⁴
- 3) There is an increasing trend of malnutrition among adult women in the low income states.⁵
- 4) Interstate disparity has been increasing for malnutrition in adult women belonging to SCs and STs.⁶

- 5) Severely underweight children are concentrated in the low per capita income states.⁷
- 6) There has been a marginal increase in interstate disparities with respect to any anemia among women.
- 7) A higher percentage of children suffer from anemia in states with low per capita incomes compared to rich states.

With respect to Social Groups

- 1) SCs and STs have a higher percentage of women with BMI < 18.5
- 2) SCs and STs are diverging from the national average in terms of female malnutrition.
- 3) There are 13 states⁸ for which malnutrition among SC women and is diverging overtime from the national average, but there are 10 states⁹ for which it is converging.
- 4) There are 14 states¹⁰ for which malnutrition among ST women is diverging overtime from national average; but there are only three states¹¹ for which it is converging.
- 5) Among the industrial states, Gujarat has a very high incidence of malnutrition among SC and ST women.
- 6) More than 50 percent of ST children are underweight and stunted.
- 7) More than 75 percent of ST children have anemia.
- 8) There is an increasing trend of anemia among women for all caste group.

With Respect to Religious Communities

- 1) There is no difference between Hindus and Muslims in terms of malnutrition among women.
- 2) Both Hindus are diverging from the national average overtime in terms of malnutrition among women.
- 3) There is no difference between Hindu and Muslim women with respect to anemia.
- 4) Hindus recorded the highest percentage of underweight and stunted children.
- 5) States with a high concentration of Muslim population have a higher percentage of children suffering from anemia.

CONCLUDING REMARKS

The situation of protein-energy malnutrition has shown little or no signs of improvement over several decades. Sixty years after independence, nearly half of India's children under three are malnourished. As a result, India has the largest number of malnourished children in the world. Even more significantly, India's rate of malnutrition is worse on average than that in Africa. With respect to other BRIC and SAARC nations, India's performance is the worst in terms of underweight children, infant mortality and under five mortality.

Even more worrying is the fact that there has been no significant decline in the percentage to underweight children over the last decade and a half when the economy has been growing at over 6 percent per annum on average. Given the increase in population, the number of malnourished children is likely to have actually increased.

The percentage of women with BMI < 18.5 in poor states (except Orissa) recorded an increase, whereas most North-Eastern states (excluding Assam and Tripura), and the rich states (excluding Punjab and Delhi) have done better over the years.

In Bihar, Jharkhand, Madhya Pradesh, Chhattisgarh and Uttar Pradesh child malnutrition rates are well above the national average. Some of these states have actually seen an increase in the share of malnourished children under the age of three between 1998-09 and 2005-06.

The incidence of anemia among women in poor states is comparatively higher than that in their richer counterparts except for Gujarat, where the prevalence of anemia women is at par with the national average overall, there is high interstate disparity with respect to hunger in India with poor states at the bottom.

Further, it is observed that socially marginalized groups (SCs and STs) have a higher percentage of women with BMI < 18.5 and they have been diverging from the national average over the years. A higher percentage of children in rural areas suffered from malnutrition as compared to those residing in urban areas. The primary

reason for high malnutrition amongst the rural poor is inadequate food intake. Further the majority of socially marginalized groups (STs and SCs) among whom malnutrition is quite high live in rural areas.

Socially marginalized groups are in a disadvantageous position and their situation is worse in the states where their concentration is high. In the majority of states SC and ST female malnutrition has been diverging from the national average. However, in two poor states, namely Chhattisgarh and west Bengal, female malnutrition has been converging towards the national average. It has been observed that more than 50 percent of children from STs are underweight and stunted and above 75 percent suffer from anemia.

Among major religious communities it has been observed that there is no difference between Hindus and Muslim in terms of women malnutrition. Hindus recorded the highest percentage of underweight and stunted children. Further there is no difference between anemia among Hindu and Muslim women. But the worrying fact is the states with a high concentration of Muslims in the population have a higher percentage of children suffering from anemia.

The prevalence of anemia in adolescent girls is very high in India and the prevalence of severe anemia among them is much higher than in pre-school children. Educational or economic status does not seem to make much difference. This may be due to the cultural and historical gender discrimination against girls.

To address the problem of hunger and malnutrition programmes such as the ICDS, MSP and the PDS need specific improvements in programme design aimed at addressing the problems faced by socially marginalized groups.

Given the seriousness of hunger and malnutrition in India, the government has universalized the ICDS programme to motivate the ground level ICDS workers. The government has proposed an increase in the salary of Anganwadi workers and helpers in the present budget. Finally, the National Food Security Bill is a step in the right direction for ensuring food security.

NOTES

- 1) Percentage of infants weighing less than 2500 grams at birth.
- 2) Percentage of children aged 0-59 months who are below minus two standard deviations from medium weight for age of the WHO child growth standards published in 2006.
- 3) Percentage of children aged 0-59 months who are below minus two standard deviations from medium weight for height of the NCHS/WHO reference population.
- 4) BMI (Body Mass Index) is defined as weight in kilograms divided by height in metres squared and reflects the nutritional status of adults. A cut off point of 18.5 is used to define thinness or under nutrition. The percentage of persons with BMI below 18.5 kg/m² indicates the severity of malnutrition among adults.
- 5) Assam, Bihar, Madhya Pradesh, Rajasthan and Uttar Pradesh.
- 6) In 2005-06 Bihar, Orissa, Madhya Pradesh, Assam, West Bengal, Uttar Pradesh and Gujarat had high female malnutrition for SCs and Bihar, Tamil Nadu, Gujarat, West Bengal, Orissa, Maharashtra, Rajasthan, Chhattisgarh, Uttarakhand, Madhya Pradesh, Jharkhand, Haryana and Karnataka have female malnutrition (above the national average among STs)
- 7) Madhya Pradesh, Jharkhand, Bihar, Chhattisgarh, Orissa and Uttar Pradesh have over 40 percent of underweight children.
- 8) Assam, Bihar, Delhi, Goa, Haryana, Gujarat, Madhya Pradesh, Maharashtra, Orissa, Punjab, Rajasthan, Uttarakhand, Uttar Pradesh,
- 9) Chhattisgarh, Himachal Pradesh, Jharkhand, Jammu and Kashmir, Karnataka, Kerala, Tamil Nadu, Andhra Pradesh, Sikkim and West Bengal.
- 10) Andhra Pradesh, Assam, Bihar, Delhi, Goa, Gujarat, Madhya Pradesh, Maharashtra, Orissa, Rajasthan, Karnataka, Kerala, Tamil Nadu and Uttar Pradesh.
- 11) Chhattisgarh, Jammu and Kashmir and West Bengal.

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