

Malnutrition in India

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Indian economy is full of contradictions and paradoxes. If we look at the economy in terms of per capita income, performance of the corporate sector, business opportunities, etc., one gets a rosy picture. For instance, India has a moderate GDP per capita of \$3827 (World Bank, 2006) with an impressive growth rate of 9.2%. Population growth has declined to 1.6% (2007). Life expectancy at birth has increased to 62.9 (2007). Net enrolment ratio in primary education is 94.2 % (UNSD, 2006). Indian markets have zooming (until the recent phase of recession caught up with them) and have been attracting foreign investors in a big way. India economy has managed to remain fairly independent of the vagaries of world markets. India is a young country with an average age of 24 and 60% of its population (more than 600 million in absolute numbers) is below 35 years of age. According to R Seshasayee (“Advantage India” Vikalpa, April-June 2007) it is expected that in about 10 years, the world will face a severe shortage of skilled manpower to the extent of 120 million. India is the only country which can fill in the gap; provided, of course, that steps are taken to create the skills in demand. The world is moving towards a knowledge economy and India seems to have a big advantage in this respect, if the potential is tapped. The entrepreneurial spirit in India is higher than in several countries including China. India has 107 million entrepreneurs as compared to 96 million in China. 18% of Indians in age group of 18-64 are entrepreneurs (according to Seshasayee). In short, Indian economy is all set to grow in a big way. Many think that India is poised to become a superpower.

However, there is another side of the picture which is not so encouraging. 34% of India’s population lives below PPP \$1 per day. Even according to the standards of poverty adopted by the government of India the population living below the poverty line (BPL) has been stagnating at 25% for the last several years. In many states this percentage has been rising. The absolute number of people in India living below the poverty line is around 300 million.

When we talk of some non-economic indicators, we are in for even bigger disappointments. The Human Development Index (HDI) ranking for India is 126 in 177 countries (UNDP, 2006), the HDI value being 0.6 (UNDP, 2004).

The object of this paper is to briefly discuss two major issues: declining per capita calorie consumption and malnutrition.

Calorie Consumption

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- Calorie consumption per head declined in 2004-05 (NSSO 61st round) to 2047 calories in rural areas as against the norm of 2400 calories and 2020 in urban areas against the norm of 2100
- Per capita calorie consumption fell steadily between 1972-73 and 2004-05 (as revealed by successive NSSO surveys) although poverty ratio halved during the same period from 56% to 28%
- On the other hand, NSSO surveys tell us that “hunger ratio” (meaning the ratio of people saying they do not get enough to eat) has been steadily declining from 15% in 1983 to 5.5% in rural and 1.9% in urban areas in 1993-94; and 2.6% in rural and 0.6% in urban areas in 2004-05.
- People in all income groups (even the bottom 30%) are shifting from basic foods (like cereals and dal) to superior foods such as fats, tea, sugar, eggs, meat, vegetables and fruits. The per capita consumption of superior foods is rising even as that of cereals (and calories) is dipping. And at every income level people are consuming more non-food items. This phenomenon typically shows rising prosperity.
- The latest survey shows that the three states with the lowest rural calorie intake are Tamil Nadu (1,842), Karnataka (1,845) and Gujarat (1,923), while Bihar (2,049) and UP (2,200) report higher calorie consumption. In fact, the data show that UP had consumption as high as 2,575 back in 1972-73. The lowest urban consumption among states is in Maharashtra (1,847 calories).

The trend of declining calorie consumption has been a puzzle, which can be called the “calorie puzzle”. It is an undeniable fact that as the incomes increase, the pattern of food consumption shifts from cereals to non cereals like meat, dairy products, fish, fruits, vegetables and processed foods; but whether this should give rise to a decrease in calorie consumption can be debatable. Some argue that the norms of per capita calorie consumption (2400 in rural and 2100 in urban areas) are no longer applicable in the context of changing life patterns. With physical activity declining in both rural and urban areas, the norms of calorie consumption need to be scaled down. This view is corroborated by the following observed facts:

1. As per capita income has gone up in various income groups in India, per capita income has steadily come down

2. There appears to be a trend for per capita calorie consumption to be lower in relatively more prosperous states of India. There appears to be hardly any reason why someone who has the money to buy food should remain hungry and calorie-deficient.
3. The “hunger ratio” as explained above has been steadily coming down, which is consistent with the general rise of per capita incomes and decline in poverty ratio. Therefore, the decline in per capita calorie consumption need not imply impoverishment.

Those who hold the contrary view argue that a decline in per capita calorie consumption should worry us, because there has to be a minimum amount of calorie intake in order to keep one reasonably healthy. They claim that the per capita income is too crude a parameter to tell the real story about the financial status of the various strata of the society. The data collected about the “hunger ratio” may not be reliable, being too subjective.

There may be something in both points of view. No one can seriously deny that the poverty has declined over the years in India. At the same time the amount of physical activity in rural and urban areas might also have declined on account of mechanization of various processes (replacement of bullocks by tractors in agricultural fields, for example). Food preferences have also undergone a change, as has been mentioned above. All this might result in a changed requirement of the body. The norm of 2400 calories in rural areas and 2100 in urban areas may not hold now; though it might have been an appropriate benchmark at one time.

However, one thing seems to be beyond doubt: *there has to be a proper yardstick of appropriate calorie consumption for a person depending on his physical activity and lifestyle. The norms of 2400 or 2100 may have to be revised suitably and then we have to see whether the Indian populations are getting enough calories according to their requirements.* The issue of calorie consumption cannot be totally neglected. If people do not get enough calories, they will remain hungry and malnourished.

Malnutrition

Coming to nutritional levels, a recent study by International Food Policy Research Institute (IFPRI) has ranked India 66th among 88 countries (the higher the ranking, the worse are the nutritional levels). India’s score on Global Hunger Index (GHI) is 23.7 (better than 32.5 in 1990) as compared to the global score of 15.2. It may be mentioned that a value greater than 10 indicates a serious problem; a value greater than 20 is alarming while a value exceeding 30 is extremely alarming. Other highlights of the report are:

- Despite years of robust economic growth, India scored worse than nearly 25 sub-Saharan African countries and all of South Asia, except Bangladesh.
- Even states with high rates of economic growth in recent years such as Gujarat, Chattisgarh and Maharashtra have shown high levels of hunger
- Almost half of all young children are underweight, many of them in the more serious categories of wasting and stunting.
- Rural households consume less food grains now than what they did in 1950's (we have already discussed this point in some detail).
- The ISHI found that not a single Indian state falls in the „low hunger“ or „moderate hunger“ categories. While twelve states fall in the „alarming“ categories, Madhya Pradesh shows extreme levels of hunger. Punjab, Kerala, Haryana and Assam fall in the serious category. Punjab, the best performing state and also known as India's bread basket ranks below Gabon, Honduras and Vietnam on the GHI.
- The GHI scores of some other countries are:
 - Bangladesh 25.2 points (70th place),
 - Pakistan 21.7 points (61st)
 - Nepal 20.6 points (57th) ○
 - Sri Lanka 15 points (39th) ○
 - China 7.1 points (15th).

To sum up, following facts attract particular attention:

- India has about the worst indicators of child malnutrition in South Asia.
- 48% of children under the age of five in India are stunted, compared to 43% in Bangladesh and 37% in Pakistan.
- Meanwhile 30% of babies in India are born underweight, compared to 22% in Bangladesh and 19% in Pakistan.
- UNICEF calculates that 40% of all underweight babies in the world are Indian.
- Fifty million Indian children under the age of five are affected by malnutrition.
- Rising food prices, UNICEF says mean 1.5 to 1.8 million more children in India could end up malnourished.

This is a very serious matter and a riddle also. How is it that malnutrition, especially among children persists in spite of declining poverty levels? How is it that levels of poverty are much higher in Africa

but the prevalence of malnutrition is much more in south Asia? How does one explain that indicators of child malnutrition paint a grim picture of India as compared to many countries which are much poorer? In fact, India is almost at the bottom of the list in South Asia (only Bangladesh is below India). The percentage of children under the age of five who are underweight (48%) is inconsistent with the poverty ratio (25%). Even within India, UP and Gujarat both show the same levels of malnutrition (47% children born underweight) although UP is a much poorer state as compared to Gujarat. “Punjab, Kerala, Jammu and Kashmir, and Tamil Nadu report the lowest proportions of underweight children (27 to 33 per cent); whereas Chhattisgarh, Bihar, Jharkhand, and Madhya Pradesh report the highest levels of underweight children (52 to 60 per cent).” (June 22, 2007: The Hindu by, A.K. Shiva Kumar). Thus, the problem of malnutrition seems unrelated to poverty.

Unlike the issue of calorie consumption discussed above, one cannot quarrel with the international growth standards to assess malnutrition.

Moreover, malnutrition is not a matter of opinion. It can be measured in purely objective way: in terms of stunting, wasting and underweight. It results in lowered capacity to do physical and mental work. There is no doubt that our people, especially children are undernourished, which affects their health and efficiency. It is a pity not only because our people do not enjoy the health they are entitled to, but also because our young country is a wasting a vast man-power potential.

The real causes of malnutrition lie elsewhere. One of the most important factors is the poor health and nutritional status of women, who give birth to underweight babies. The next factor is the care of the child after birth. This is a function of a larger issue. Child care is bound to be neglected if the mother is not well-educated or if she is not adequately empowered vis-à-vis her husband and other male members in the family. It is well known that the assets controlled in the house by female members have a larger bearing on the child-care as compared to the assets controlled by males. The status of women in the family is an important factor

A.K. Shiva Kumar notes that “According to NFHS-3, close to one-third of Indian women suffer from Chronic Energy Deficiency and have a Body Mass Index (BMI) of less than 18.5 kg/m².”

“...Breast milk provides vital nutrients throughout the first year of life; but it alone is not sufficient. Beyond four to six months, infants must be given solid foods to supplement breast milk. Despite the importance of breastfeeding and appropriate feeding for preventing malnutrition, only 23 per cent of children under the age of three were breastfed within one hour of birth and less than half

the babies (46 per cent) up to five months old were exclusively breastfed. And only 56 per cent of children aged six to nine months received solid or semi-solid food and breast milk. It is, therefore, not surprising that a child typically becomes malnourished between six and 18 months of age, and remains so thereafter. In most cases, nutritional rehabilitation is difficult.

The poor state of child malnutrition is even more tragic, because studies have established that the development of brain is almost complete at the age of two years. If a child is malnourished at the age of two, the deficiency cannot be made up later by taking corrective measures. Thus it is crucial to take care if the nutrition right from the prenatal stage up to the age of two years. 30% of the children in India are born underweight. This handicap is hard to overcome.

It may be mentioned that the Intensive Child Development Programme (ICDS) has been a very good step in the right direction and has been extremely useful to improve the state of nutrition among children. Even so, in practice it has taken care of children older than two years, although the programme is meant for the children of 0 to 6. It would be a good idea to concentrate on the pregnant mothers and children below the age of two years. Of late, there has been an increasing awareness that children below 3 years of age have to be given special attention, the health of girls has to be taken care of since adolescence and women need to be educated and empowered generally in order to make a dent on the problem. However, the impact of these interventions is yet to be visible.

To summarize, it is not enough to be satisfied with India's progress on purely economic front judged by the growth of GDP and per capita income. Bringing down the poverty ratios in consonance with the Millennium Development Goals (MDG) is a big challenge (the MDG goals required halving of poverty ratios between 1990 and 2015).

Two trends in particular should worry us: declining consumption of calories per capita and alarming levels of malnutrition. While declining calorie consumption may be (partly or fully) explained by change in life patterns and physical activity, *there can be little doubt that there must be norms of minimum calorie consumption for rural and urban areas consistent with the prevailing life patterns and level of physical/mental activity, so that one can judge whether there is insufficient calorie intake in Indian populations leading to malnourishment.*

Action Points

Action is required on the following fronts:

- First of all, we have to ensure that the *people below poverty line (BPL) get the calories they need*. A new exercise must be undertaken to ascertain the calorie requirement in rural and urban areas separately considering generally the level of physical and mental activity of BPL persons.
- Once the calorie requirements are determined, the government must ensure, by means of programmes such as “Food for Work”, that enough food grains are made available to all their BPL card holders through fair price shops.
- *Getting enough calories is a necessary but not sufficient condition for adequate nutrition*. Therefore, for BPL as well as APL (above poverty line) persons a *balanced diet* is necessary containing adequate quantities of carbohydrates, proteins, pulses, vitamins, minerals, fats and fiber. *In this context, Information, Education and Communication (IEC) are as important as material inputs*. Special attention will have to be paid to the following target groups:
 - **Adolescent girls** are often neglected by their parents in male dominated families. There is a common misconception that girls do not need as much nutrition as boys do, because the boys have to exert more physically and mentally. (This, of course, is wrong. In rural areas, most of the physical work at home and in field is done by females.) According the seeds of malnutrition are sown in adolescent girls.
 - **Pregnant mothers** need enough nutrition for themselves as well as for the child they are bearing. A large number of children are born underweight and malnourished. Therefore the nutritional needs of pregnant mothers should be taken care of through special programmes.
 - **Lactating mothers** also need special attention. Apart from their nutritional needs, their education also is very important. Wrong feeding habits contribute substantially to child malnutrition. For instance, in a study (Annexure II) conducted in Jaipur city, it was revealed that 85% mothers discarded colostrum and 96.6% mothers gave prelacteal feeds to their infants. *Colostrum* is highly nutritious and must be given to the newly born babies. Prelacteals should never be given as they may be a source of contamination and may adversely affect the intake of breast feeding. Breast feeding should be the only source of nutrition for six

months without any other supplements or prelacteals. The recommendations for a proper feeding are:

- Early initiation of breast feeding including colostrum
- Avoidance of prelacteals
- Initiation of complementary feeding at the age of six months
- Feeding of cereal-based semi-solids/solids following age-specific frequency and in recommended quantities
- Adherence to food-hygiene to avoid infections etc. ○

Children up to the age of two should be specially taken care of, because if the nutritional deficiency is not corrected by this age, it becomes, more or less a permanent feature of life.

- **Empowerment and education of women** about child care. Education alone will not help unless they are empowered enough take decisions in the families.