

## **Impact on Rural Poverty in India State Hunger Index: Comparison**

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### **ABSTRACT**

India is the largest number hungry people in the world. In the Indian ranks at has 67 out of 112 countries in the Global Hunger Index (GHI) 2010, while 'it has 2012 GHI' (IFPRI) ranks it at 65 among 79 countries. Likewise, malnutrition in India, in particular among children and women, is widespread, acute and even alarming. As per a Global Survey Report released by Save the Children on 19 July 2012, India is ranked at 112 among the 141 nations as regards Child Development Index (CDI). And there are disparities across various sections of the society as well as states. Obviously, poverty is the main cause of hunger and malnutrition, low level of awareness being another major cause. Accordingly, poverty eradication and awareness rising are essential to achieve 'zero hunger and malnutrition' in India. Government has initiated various measures to overcome hunger and malnutrition, but they are not so effectively implemented. CSOs, private sector, professional institutions, some international organizations, and donors are equally concerned and active on these issues. However, there are miles to go and hence coming, staying and working together of all the stakeholders is imperative for rapid progress.

### **1. INTRODUCTION**

About 68.84% of the population of India is rural, major part of which greatly suffers from poverty hunger and malnutrition. Besides, major part of the urban population (31.16%) afflicted by poverty hunger and malnutrition is actually rural that has migrated to urban areas and landed in urban slums while exploring employment and income opportunities. As is well known, India is a large and diverse country with disparities across various sections of the population, castes, classes, ethnic groups, gender and age as well as across the states and their constituents. It has a federal structure, comprising 28 states and 07 Union Territories. Further down, it has about 600 districts, 5470 blocks/sub-districts, 2,30,000 Gram Panchayats, 6,40,000 villages and 1.4 million habitations. Similarly, there are 5161 large, medium and small towns in India. It is an uphill task to deliver efficiently and effectively anti-poverty schemes/resources and services to such a large, diverse and dispersed area, especially in a greatly centralised system, which, therefore, needs to be replaced with a well-monitored and well-managed participatory decentralised system already in place in form, but yet to be strengthened with content (functions, funds and functionaries).

### **2. STATEMENT OF THE PROBLEMS**

A basic implication of these trends is the necessity to stabilize both food and nonfood prices. This calls for increased interventions in both food and non-food commodities' markets in the form of

enhanced procurement and food distribution operations such that there is an improvement in the economic returns in real terms for primary sector producers. A unidirectional policy seeking to further open up the economy and focus on export-oriented agriculture will be contrary to achieving this objective, especially with the shrink in world demand due to the current recession that is gradually setting into the North Atlantic markets. Such a policy will lead to further decline in the returns to exports crops in the world markets and within the domestic economy with disastrous consequences for the millions of primary sector producers in India as well as other poor developing economies. A more judicious way of tackling the problem of hunger within such economies will be to revisit and implement the goal of national food security that constituted the erstwhile 'Food-First' doctrine. The Public distribution System (PDS) also has a crucial role to play in this fight against persisting and increasing hunger. Simultaneously with the deterioration of economic returns in the rural areas over the last decade, there has also been a progressive downsizing of the PDS in India. The Targeted PDS introduced in 1998 linked food distribution at subsidized rates to the poverty line. Targeting the food subsidy to the Below Poverty Line (BPL) population went awry as the official poverty line used for this purpose had long ceased to represent any of the objective or standard norms of calories deprivation that were prescribed by the 1979 Task Force. A large section of the rural population, which has a calorie intake between the minimum and average calorie requirement is officially classified as non-poor and hence excluded from the benefits of the TPDS. Interestingly, after diverting further away from the Task Force norms successively for several years, the official rural poverty line in 2004-05 measured the population with an energy intake below 1820 Kcal per capita per day (Patnaik, 2007), which is also the minimum norm used by the FAO to estimate the proportion of the population with absolute calorie deprivation. In the process, nearly 50 percent of the rural population with an energy intake shortfall from their average requirements is not classified under the BPL population.

The real producer prices for rice remained stable throughout the nineties and experienced a surge in the late nineties but this gain quickly tapered off and the real returns reached the early nineties level due to stagnated nominal prices and higher inflation in the new century. In contrast, the real value of wheat prices sharply increased initially when the economy was opened up in the mid-nineties and again towards the end of the decade. However, like rice, the real prices for wheat also faced stagnation between 1999-00 and 2001-02 and a downturn in the period thereafter. Similar trends are visible for pulses where the real prices fast declined post 2001-02 to the early nineties levels after a brief escalation at the turn of the century. On the other hand, the trend for maize have been more volatile, declining significantly in the early nineties followed by occasional upturns, but importantly, the real value of maize prices have consistently remained below the 1994-95 level throughout the period.

### **3. MEASUREMENT OF HUNGER VIA HOUSEHOLD SURVEYS IN INDIA**

As part of the regular consumer and expenditure surveys, the NSS has been regularly collecting data on the magnitude of hunger in India. The exact wording of the NSS hunger question in 2004-05 was: "Do all members of your household 'get enough food every day': yes: every month of the year-1, some months of the year-2; No month of the year-3" In 1983, some hunger was reported by 14.2 percent of the population, but by 2004-05, this share had declined to only 1.4 percent, or "no" hunger, at least according to consumption surveys on self-identified hunger (Table 1). The 2004-05 NSS survey is the last year the question on hunger was asked. A decade later, the Indian government passed a right to food law to alleviate hunger

**Table 1**  
**NSS data for India shows little hunger by 2004**

| YEAR | FOOD SUFFICIENCY % |      | NO MONTH IN THE |
|------|--------------------|------|-----------------|
|      | YES                |      |                 |
| 1983 | 85.6               | 12.5 | 1.7             |
| 1993 | 96.6               | 2.7  | 0.7             |
| 1999 | 97.8               | 1.6  | 0.6             |
| 2004 | 98.6               | 1.0  | 0.4             |

**Source:** NSS Consumption Expenditure Surveys

Table 1 show that 2004-05 NSS survey is the last year the question on hunger was asked. A decade later, the Indian government passed a right to food law to alleviate hunger.

**Table 2**  
**How Hungry Is the World 2007**

| REGION                    | GALLUP HUNGER INDEX | <1.6 PPP\$ | >1.6PPP\$ AND < 3.2 PPP\$ | > 3.2 PPP\$ AND < 12 PPP\$ | >12PPP \$ |
|---------------------------|---------------------|------------|---------------------------|----------------------------|-----------|
| Developed economies       | 8.8                 | 0.4        | 0.9                       | 2.8                        | 77.1      |
| East Asia                 | 29.8                | 2.3        | 8.5                       | 43.5                       | 46.9      |
| Russia & Eastern Europe   | 26.4                | 0.7        | 3.7                       | 20.0                       | 75.4      |
| Latin America             | 28.4                | 2.9        | 8.4                       | 33.5                       | 56.7      |
| Middle East+ North Africa | 25.3                | 1.2        | 4.3                       | 22.5                       | 71.2      |
| South Asia                | 26.1                | 3.2        | 22.6                      | 65.6                       | 11.8      |
| Sub-Saharan Africa        | 51.6                | 34.6       | 59.6                      | 32.4                       | 7.7       |
| Average                   | 26.1                | 5.6        | 16.8                      | 38.1                       | 40.8      |

**Source:** Gallup, Author's computations based on 2011 ICP data

An alternative measure of hunger for India (and most countries of the world) is provided by a Gallup survey. As per Table 2, the question that has been asked since 2007 is: "Does your family have insufficient money/finances to meet food needs?" For India, the share of people answering in the affirmative was 26.3 percent in 2007, 18.8 percent in 2011, and 22.4 percent in 2013. The Gallup data suggest a strong negative relationship between the Gallup survey and per capita consumption (Figure 1). The estimated equation for 2011 is:  $Hunger \% (Gallup) = 63.4 - 13.8 * LogHouseholdSurveyPerCapitaConsumption$  where per capita consumption is measured in 2011 PPP prices; number of observations=146,  $R^2 = 0.56$  On a cross-section basis, in 2007, except for two regions, world hunger was a near constant 25 percent. The two exception regions were the developed economies (9 percent) and sub-Saharan Africa (52 percent). East Asia was at 30 percent, some 4 percentage points higher than South Asia.

**Table 3**  
**Percentage of Population that has Person per day Income of Region**

| Region                    | Gallup Hunger index | <1.6 PPP\$ | >1.6PPP\$ and < 3.2 PPP\$ | > 3.2 PPP\$ and < 12 PPP\$ | >12 PPP \$ |
|---------------------------|---------------------|------------|---------------------------|----------------------------|------------|
| Developed economies       | 13.4                | 1.0        | 0.4                       | 3.2                        | 77.0       |
| East Asia                 | 15.8                | 3.4        | 13.1                      | 38.1                       | 47.9       |
| Russia & Eastern Europe   | 22.8                | 1.0        | 3.4                       | 21.0                       | 74.6       |
| Latin America             | 32.5                | 3.4        | 8.4                       | 28.8                       | 61.2       |
| Middle East+ North Africa | 40.8                | 1.4        | 5.4                       | 32.4                       | 60.1       |
| South Asia                | 23.6                | 0.9        | 14.2                      | 64.8                       | 20.8       |
| Sub-Saharan Africa        | 56.9                | 36.3       | 64.3                      | 28.3                       | 7.3        |
| Average                   | 24.6                | 5.5        | 15.0                      | 36.9                       | 44.8       |

**Source:** Gallup, Author's computations based on 2011 ICP data

Table 3 Note that the Middle East-North Africa region has shown a large jump, from 25 to 41 percent, while East Asia almost halved its share (from 30 to 16 percent) What the Gallup data strongly suggest is that hunger is more of a relative concept than an absolute concept. Just as absolute poverty in the world has declined, and individual country absolute poverty lines have been raised in real terms (the Indian poverty line has been raised by around 40 percent in real terms since the mid-1970s; see Section 3), so it appears to be the case for individual country hunger.

**Table 4**  
**Poverty Decline in India, Various Methods**

| Year | Dandekar –Rath (P Line I) |      | Tendulkar (P Line II) |      |
|------|---------------------------|------|-----------------------|------|
|      | t1                        | t2   | t1                    | t2   |
| 1957 | 58.1                      |      |                       |      |
| 1961 | 49.7                      |      |                       |      |
| 1964 | 58.2                      |      |                       |      |
| 1967 | 65.7                      |      |                       |      |
| 1970 | 57.3                      |      |                       |      |
| 1973 | 59.6                      |      |                       |      |
| 1977 | 55.8                      |      |                       |      |
| 1983 | 48.4                      |      | 58.3                  |      |
| 1993 | 40.4                      |      | 45.6                  |      |
| 1999 | 25.8                      | 23.2 | 43.2                  | 39.9 |
| 2004 | 21.7                      |      | 37.7                  |      |
| 2009 | 15.6                      | 10.4 | 29.9                  | 21.7 |
| 2011 | 10.8                      | 6.8  | 22.2                  | 14.9 |

**Source:** World Bank, Dandekar-Rath, NSS Consumption Expenditure Surveys

Table 4 documents the nature of poverty decline in India for its two poverty lines (DandekarRath and Tendulkar) or alternatively and equivalently the World Bank 1996 PPP and the World Bank

2011 PPP poverty line. In addition, data are presented according to a third method for the years 2009-10 and 2011-12. This method has the same poverty lines, but from a separate NSS household survey conducted in each of the two years. These surveys were identical in all respects except that they covered a different set of households and had different recall periods for different consumption items—most importantly, food consumption data were collected according to a seven-day recall period than the traditional 30-day period. The seven-day recall period for food has been recommended for greater accuracy and is the practice in most parts of the world (see Deaton 2005). Poverty decline in India has been impressive. In 1957, close to 60 percent of the population was poor (PLine I) and this share was down to 10.8 percent in 2011-12; according to a seven-day recall period, the fraction of poor in 2011-12 was even lower at 6.8 percent. How different methods of “counting” yield to very different results are indicated by the levels of poverty obtained for PLine II in 2011/12. According to a 30-day food recall, poverty in India was a high of 22.2 percent for PLine II; if food was counted on a seven-day basis, poverty in India would be 7.3 percentage points lower, at 14.9 percent. The trend in poverty decline, in other words, is the same, regardless of the method used

**Table 5**  
**Nutrition composition of minor millet**

| <b>Crop/Nutrient</b> | <b>Protein(g)</b> | <b>Fat(g)</b> | <b>Fiber(g)</b> | <b>Minerals (g)</b> | <b>Iron (mg)</b> | <b>Calcium (mg)</b> | <b>Calories (kcal)</b> |
|----------------------|-------------------|---------------|-----------------|---------------------|------------------|---------------------|------------------------|
| Finger Millet        | 7.3               | 1.5           | 3.6             | 2.7                 | 3.9              | 344                 | 336                    |
| Foxtail Millet       | 12.3              | 4             | 8               | 3.3                 | 2.8              | 31                  | 473                    |
| Kodo Millet          | 8.3               | 3.6           | 9               | 2.6                 | 0.5              | 27                  | 309                    |
| Little Millet        | 7.7               | 5.2           | 7.6             | 1.5                 | 9.3              | 17                  | 207                    |
| Barnyard Millet      | 11.2              | 3.9           | 10.1            | 4.4                 | 15.2             | 11                  | 342                    |
| Proso Millet         | 12.5              | 2.9           | 2.2             | 1.9                 | 0.8              | 14                  | 356                    |

#### **4. CONCLUSION**

India was a very poor country at the time of independence, and it is not surprising to note that a considerable portion of the debate, analysis, and policy has been oriented toward the reduction in absolute poverty. This paper examines this approach, especially over the past 40 years. The Indian experience is used as a prism through which to examine the larger experience of other developing countries. Somewhat surprisingly, the first result of our study is that hunger is not an absolute concept, even if theoretically it appears to be a good example of an absolute. This is explored in the next section.

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