Hunger and under-nutrition continue to remain veritable challenges in India, even 65 years after Independence. Among the 120 countries where hunger-incidence was tracked by the Global Hunger Index, 2013 report, 42 countries reported ‘low’ levels of hunger and were not ranked. Of the remaining 78 countries with ‘moderate’ and more serious situations of hunger, India ranked 63 and remains classified as having an ‘alarming situation of hunger’. The level of nutritional deprivation in the country is not only unacceptable but also has been rising in the recent decades. The 2009-10 National Sample Survey consumption data reveals that 75.5 per cent and 73 per cent of the population in rural and urban areas, respectively, are unable to attain a calorie-intake of 2200/2100 Kcal (for rural/urban) per capita per day (Patnaik, 2013).

The other glaring trend in this regard is the increase calorie-deprivation witnessed particularly since 1993-94. Since the early 1990s, there has been a sharp rise in the proportion of people living below the above-mentioned calorie norms in both rural and urban India. In rural areas, there was some minor increase in this regard even prior to 1993-94 (56.4 per cent in 1973-74 to 58.5 per cent in 1993-94) but one could witness a disconcerting intensification of under-nutrition in the period of economic reforms (58.5 in 1993-94 to 75.5 per cent in 2009-10). In urban India, there is actually a reversal of trends. The small decline in the proportion of people living below the threshold calorie intake observed in the two decades till 1993-94 (60 per cent in 1973-74 to 57 per cent in 1993-94) has now been substituted by a significant rise in calorie-deprivation; rising from 57 per cent in 1993-94 to 73 per cent in 2009-10 (ibid, Table 5).

It is, therefore, evident that the period of economic reforms has witnessed an increase in the incidence of under-nutrition. The Global Food Crisis after 2006 leading to shocks in food prices has also catapulted ‘hunger and food insecurity’ back into the Relevance of Land Reforms for Ensuring Access to Food

Arindam Banerjee

The period of economic reforms has witnessed an increase in the incidence of under-nutrition. In developing country like India, where a majority of the rural population continue to depend on land and agriculture for livelihood in the backdrop of no meaningful structural transformation over the years, the basic linkages between ‘access to land’ and ‘access to food’ cannot be ignored.
mainstream policy discourse within the country. The Right to Food campaign and the recent enactment of the National Food Security Act, though yet to be implemented, are symptomatic of this development. On the other hand, we find the emergence of an agrarian crisis in the country since the late 1990s, the causes and impact of which continue to persist. The distribution of agricultural land has also worsened in the backdrop of this agrarian crisis. The increasing trends in landlessness and intensified civil society activism around the land issue have also brought land reforms within the larger social discourse. However, ‘land reforms’ is yet to attain a higher priority within the policy agenda. The formation of the National Land Reform Council in 2008 did not proceed much beyond the announcement. The recent 10 point agreement between the Union Government and the Ekta Parishad renews promises in this regard.

In a developing country like India, where a majority of the rural population continue to depend on land and agriculture for livelihood in the backdrop of no meaningful structural transformation over the years, the basic linkages between ‘access to land’ and ‘access to food’ cannot be ignored. To understand why such linkages are often not given due recognition policy-making by the government, one needs to examine how the issue of hunger is addressed theoretically by conventional economists and policy-makers. This article delves into the causes behind all-pervasive food-insecurity that exists in India, and engages with the debates around this issue. Based on this engagement, the question of land reforms is located within the possible policy options that can potentially improve access to food for majority of the population.

Rising Hunger in India: Myth or Reality?

Though the National Food Security Act has been passed under popular pressure from different sections of the society, most prominently the Right to Food campaign, the approach adopted by the Government on food policy has been one, which clearly does not appreciate the various dimensions of hunger. As a result, the Government and its’ various advisory bodies, primarily the Planning Commission, have argued against the universalisation of the Public Distribution System (PDS), which was transformed into a targeted version back in 1998.

Apart from performing poorly in the health front by exhibiting high proportion of under-weight children vis-à-vis other countries and higher incidence of anaemia among children and women, the most compelling evidence of rising food deprivation in the country is the declining trend of per capita food consumption. The fall in the average calorie-intake per capita per day has been existing since a long period of time. Figure 1 plots the three-year moving averages of the per-capita food consumption (in kg/year) since 1961-62, and clearly indicates the distinct increase in the variable since the food shortages of the mid-1960s. This increasing trend gets arrested in the early 1990s, and thereafter one sees a significant decline in annual foodgrains consumption per person.
in the country. Much of the gains that were made in terms of ‘access to food’ during the 1980s have been tapered off during the period of economic liberalisation.

**Figure 1: Per Capita Foodgrains consumption (3-year moving averages in Kg/year)**

![Graph showing per capita foodgrains consumption](image)

*Source: Computed by the author based on USDA Foreign Agriculture Service database*

A major debate lies in the domain of interpreting the declining trend of per-capita foodgrains consumption. Many of the government documents like the *Economic Survey* or Plan Documents have presented an alternative interpretation of this new development. It has been argued officially that the falling cereal consumption represents a diversification of diets among the population. This is, therefore, seen as a positive development that has occurred with rising incomes in the period of liberalisation. With rising incomes (for which the evidence is sizeable increases in the per-capita Gross Domestic Product), people shift to consumption of more animal-based products, (including meat, milk etc.), and reduce their consumption of cereals. This trend is actually interpreted as an improvement of diet of the population rather than being a cause for concern.

The above hypothesis adhered to officially is erroneous and undermines the dimension of intensification of hunger in the country. Firstly, the Engel’s Law on which Government’s proposition is based, talks about a declining share of cereals in total food expenditure with rise in incomes. Beyond a certain threshold income, additional food expenditures are directed towards animal products, and hence the share of cereals decline. From this, logically there is no case of an absolute decline in the cereal consumption levels even with diet diversification; at best per-capita cereal consumption reaches a certain maximum and is non-increasing thereafter.

Secondly and most importantly, by Engel’s Law, it is only the direct intake of foodgrains,
which reaches some level of stagnation due to the onset of diversification of diets within the population after a certain threshold income. On the other hand, the rising volumes of animal-based products like meat or dairy products, that is consumed also embodies foodgrains that are originally used as feed for the livestock. As there is loss of energy when foodgrains as feed gets converted into animal protein, a comparatively greater volume of foodgrain is required to be fed to animals in order to produce the energy-equivalent livestock products that can compensate for the reduced volume of direct foodgrain consumption. What this essentially means is that consumption of animal-based protein actually increases indirect consumption of foodgrains than what would have been necessary had cereals been consumed directly. A net result of this is that voluntary diet diversification towards non-foodgrains due to improved incomes actually implies a higher total (direct plus indirect) consumption of foodgrains, and not less as is commonly portrayed.

That is why high income countries like the US and Western European countries have a much higher (and not lower) per-capita consumption of foodgrains annually (in the range of 700 kgs in the Western European countries and 900 kgs in the US) vis-à-vis many of the middle and low income countries. The diversification in diets that these countries have experienced has led to a situation where a major portion of their national foodgrain demand comes from the livestock industry. It is true that the commercialisation of livestock production in India is significantly lower as compared to high-income countries, since some livestock survive by foraging, and fish consumption forms a significant part of the animal product consumption basket in the country. Even with the consideration of these facts, there is still no case why with rising incomes and diet diversification, the total demand for foodgrains in the economy should fall; with such diversification of diets, it must exhibit an increase though the latter may be much less to what the Western countries experienced.

Table 1: Trends in Macro-nutrient Intakes in India: 1983-2009-10 (per capita per day)

<table>
<thead>
<tr>
<th>Years</th>
<th>Rural</th>
<th></th>
<th>Urban</th>
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<tbody>
<tr>
<td>1983</td>
<td>2221</td>
<td>62</td>
<td>27</td>
<td>2089</td>
</tr>
<tr>
<td>1993-94</td>
<td>2153</td>
<td>60.2</td>
<td>31.4</td>
<td>2071</td>
</tr>
<tr>
<td>2004-05</td>
<td>2047</td>
<td>57</td>
<td>35.5</td>
<td>2020</td>
</tr>
<tr>
<td>2009-10</td>
<td>2020</td>
<td>55</td>
<td>38.3</td>
<td>1946</td>
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Source: Patnaik, 2013, based on NSS data

The data published by the National Sample Survey reports on nutritional intakes in India for various years refutes the argument of diet diversification in a more comprehensive
fashion (Table 1). In both rural and urban areas, the average calorie intakes per person per day have declined substantially. In rural areas, the decline has been occurring since 1983 while in urban India, the major decline happened after 1993-94. However, one could see that protein intakes have also declined significantly in both rural and urban areas, negating the diet diversification thesis. The intake of fat has improved during the last three decades in both rural and urban India in the range of 10-12 grams per person per day.

The existing trend in intake of macro-nutrients points towards severe increase in under-nutrition. To argue that this modest increase in fat consumption has compensated both for the massive declines in calorie intakes and also for the reduced protein intake and, thus, there remains no real cause of concern, is stretching the proposition too far.

Both Figure 1 and Table 1 exhibit the phenomenon of income deflation that large sections of the population are witnessing in India. Even in a situation, where income increases for all classes of the population, the lower-income groups are disadvantaged if the income growth is highly unequal in nature. Significantly higher rates of income growth experienced by the topmost classes (top 15-20 per cent of the population) will help them to corner larger shares of the total foodgrain consumption (as direct or indirect consumption) via higher prices for food. This is accentuated by the deepening of agrarian crisis, which keeps agricultural incomes low for those who are dependent on land.

The agrarian crisis has pushed the rural population into an informal economy located in both rural and urban areas, where wages and earnings are the least protected from inflation. A certain pattern of growth experienced by India during the economic reforms period, where a few capital- or knowledge-intensive sectors grow at a faster pace as compared to the labour-intensive sectors (including agriculture), is ideal for deflation in real incomes for a large section of the population.

So even in a situation where the total demand for grains in per-capita terms is declining, we witness episodes of high food inflation in the country. The high demand from the rich and upper-middle classes pull the food prices enough to adversely affect the real incomes (and their real demand for food) of the rest of the population. The inter-class competition for foodgrains is something that has been largely ignored in the official explanations.

Non-recognition of this income deflation process can lead to adoption of wrong national food policies. In the last 15 years, there have been two distinct episodes of accumulated food stocks. After the introduction of the Targeted PDS in 1998, the foodgrain stocks started rising, reaching a high of 63 million tonnes in July, 2002.\(^1\) Accumulation of foodgrain stock was recognized as a symptom of over-production and the government resorted to export of grains to reduce its stock. It failed to recognize the problem of accumulation of foodgrain stock arising out of lack of purchasing power of the
population. However, given that accumulation actually occurred in the backdrop of dwindling per-capita food production (187.3 kg in 1998-99 to 161.2 kg in 2002-03, the latter also a drought year)\(^2\), points to the fact that demand for foodgrains must have reduced at a faster rate leading to overflowing of stock at FCI godowns. History was repeated after 2008. This time round food stocks had reached an even higher level of almost 81 million tonnes by July 2012. Since 2008-09, the per-capita foodgrains production has improved (from 188.3 kg in 2008-09 to 196.5 kg in 2012-03) by roughly 8 kg-certainly not a massive increase that can lead food stocks to a level, which is more than thrice the July buffer norms of 26.9 million tonnes. The government based on the excess production theory, continued to opine that exports are a better mechanism for disposing these stocks rather than increasing the coverage of the PDS, which can address the issue of pervading hunger among the population. The repeated accumulation of massive foodgrain stocks in government godowns during a time when foodgrain production has either declined, remained stagnant or increased modestly actually reveals the lack of purchasing power within large sections of the population, which further causes decline in their nutritional standards. In order to meaningfully tackle this challenge, one needs a comprehensive policy that can address the agrarian crisis and improve the real income of the toiling masses at faster rates such that they are not crowded out from food consumption. This is also where the question of land and access to land assume importance within the policy framework.

**Land Reforms and the Challenge of Hunger**

Access to cultivable agricultural lands, primarily food lands, can substantially shield poor households from high food prices at the open markets, to an extent which depends inversely on the share of food output sold in the market for acquiring other basic commodities for survival. For ‘net buyers of food’ that characterises an overwhelming majority of Indian farmers, the high food prices reduce their real incomes in proportion to their dependence on the markets.

Secondly, secured access to land also enhances the livelihood opportunities of the small-scale farmers\(^3\). The latter has a higher opportunity of adopting production decisions that diversify their risks in terms of volatile crop output prices. The rights of ownership or legal rights of tenancy for a longer term allow rural households to undertake investments and improvements on the land, thereby causing higher yields and better disposable incomes. A well protected access to land also improves access to groundwater, which is crucial for cultivation, and the lack of which creates significant vulnerabilities for production.

However, mere access to land is not a guarantee for investments in agriculture in a country like ours where majority of the farmers are petty commodity producers. This has to be accompanied by State policies, which are favourable and enabling for small
Access to food

farmers in terms of input and credit access, output marketing facilities and extension services. The institutional changes that accompanied the introduction of High Yielding Varieties during the seventies and 1980s are equally important for growth in agriculture. Nutritional data reveals that faster growth in agriculture in the 1980s did not necessarily imply attainments of better nutritional standards for the masses due to the uneven distribution of benefits, again determined significantly by the unequal ownership of land. Despite the skewed nature of the Green Revolution, nutritional standards did not deteriorate fast as is witnessed during the period of economic reforms since the 1990s.

Thirdly, late developing countries like India did not witness capitalist transformation of the labour force like in advanced developed countries, where a negligible minority of the population remains dependent on agriculture for livelihood and bulk of the workforce is employed in formal industries and services. In that context, limited diversification of livelihood between agriculture and non-agriculture that occurs is severely constrained by the lack of access to land assets in rural areas. Households, who are entirely landless has a much lesser bargaining power in the non-agricultural sectors, whether in rural or urban areas, in terms of their working conditions, wages and earnings, or migration decisions. For a strategy of livelihood diversification to be successful in terms of better incomes and standards of living in the context where alternative employments available are largely located in an unregulated informal sector, the ownership of land assets, particularly agricultural land, becomes a crucial determining factor.

The incidence of landlessness and inequality in land ownership is unacceptably high accordingly to the National Sample Survey findings for 2003-04, the latest all-India land data available from household surveys. The percentage of landless households in rural areas is reported to be higher than 40 per cent while the Gini coefficient of land holdings on a scale of 0 to 1 is 0.76, signifying high inequality within those who have some access to agricultural land (Rawal, 2008). The issue of land reforms and its implication for food and income security in contemporary times, particularly after economic reforms, is required to be located within the context of agrarian crisis, which rural India is facing.

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<tbody>
<tr>
<td>Bottom 60 per cent</td>
<td>10.8</td>
<td>10.8</td>
<td>10.5</td>
<td>11.0</td>
<td>8.3</td>
</tr>
<tr>
<td>Middle 30 per cent</td>
<td>37.7</td>
<td>38.2</td>
<td>38.5</td>
<td>38.0</td>
<td>36.5</td>
</tr>
<tr>
<td>Top 10 per cent</td>
<td>51.5</td>
<td>51.0</td>
<td>51.0</td>
<td>51.0</td>
<td>55.2</td>
</tr>
</tbody>
</table>

Source: Nair and Banerjee, 2012

A longer view of the distribution of operational area in India since Independence reveals a remarkable increase in concentration of agricultural land in the economic reforms period. The substantial land reforms undertaken in a few states ensured that the
overall distribution of land remained largely unchanged (compensating for increases in concentration in other states) after Independence, with some gains for the lowest strata of rural households. This has been reversed with the share of land increasing sizeably for the top 10 per cent of rural households between 1991-02 and 2002-03 (see Table 2). The crisis of profitability and income that has gripped Indian agriculture since the 1990s has caused an unprecedented increase in the concentration of farmland holdings. Approximately 40 per cent of rural households are landless and 60 per cent of the remaining having access to 8.3 per cent of total land. This implies that roughly the bottom three-quarters of the rural population have access to less than 10 per cent of the most important productive assets in rural areas, namely farmlands. This exclusion from access to land is crucial in comprehending why the bottom three-quarters of the rural population is also vulnerable in terms of nutritional intakes in the country currently.

This crisis is further intensified and spilled over to the urban areas through seasonal and non-seasonal migration of a section of rural poor into towns and cities in search of employment, primarily again in the informal sector, where wage and work regulations are weak. The informal sector in India has thrived and expanded successfully due to the availability of large pools of footloose labour, who are willing to sell their labour, often under extra-economic coercion and constraints, for near-subsistence or less-than-subsistence wages.

The level of inequality in terms of land distribution and the extent of exclusion from the ownership of productive assets in rural areas make a strong case for land reforms, which benefits the bottom 75 to 80 per cent of the rural population. The linkages discussed above between access to land and accruing decent incomes and household-level food security can operate only in the event of radical land reforms. The Indian countryside has witnessed since Independence that mere technological change in agricultural production, without substantial redistribution of land and other productive assets, does not allow betterment of incomes and improvement in living standards for majority of the rural population. This renders land reforms as crucial for increasing the purchasing power of rural households and reducing their current levels of food-deprivation.

The Indian State also needs to rethink its strategy of withdrawal from the agricultural sector in terms of credit, extension or crop marketing. These neo-liberal economic strategies along with the exposure of Indian farmers to world competition through the route of trade liberalisation have caused a long-drawn stagnation in the agricultural sector and deepened agrarian crisis in the rural areas. To use land reforms as a meaningful tool for fighting hunger at the current conjuncture, the government is needed to adopt policies, which supports small-scale agriculture. Without the policies of expanding State support to small farmers, land reform measures will be rendered ineffective due to the continuing crises of income and profitability in agricultural production.
References


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1 As reported by Food Corporation of India website, available at http://fciweb.nic.in/upload/Stock/6.pdf
2 All per-capita data on production is based on USDA Foreign Agricultural Service database, available at http://apps.fas.usda.gov/psdonline/psdhome.aspx
3 Definition of various types of farmers based on size of land: Marginal holdings (of size 1 hectare or less), small holdings (size 1 to 2 hectares), semi-medium holdings (2 to 4 hectares), medium holdings (4 to 10 hectares), large holdings (over 10 hectares)