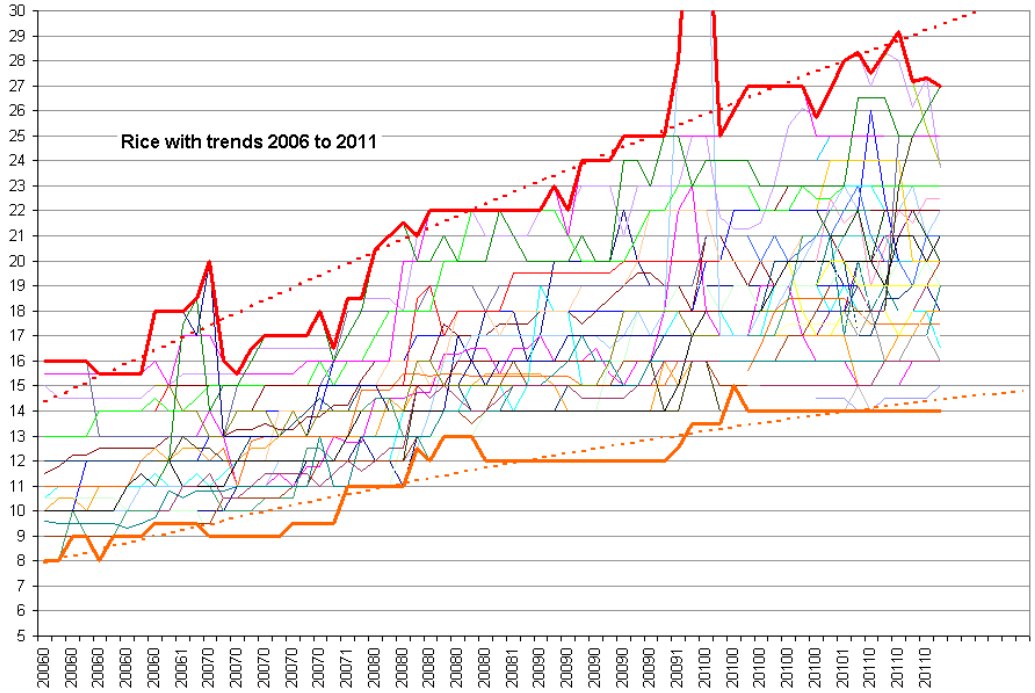
Food Prices, Health and Nutrition: Red-flag indicators for the 12th Plan

By Rahul Goswami

The long-term impacts of food inflation on the rural and urban poor are yielding worrying indicators in the nutrition and health sectors. The debate over the provision of the National Food Security Bill and over the reform of procurement for the public distribution system has helped a great deal to bring to the foreground persistent inequities in food access and quality. What remains are the health and nutrition dimensions that are also determined by access to food, the prices at which food items are available and the extent to which food inflation determines nutritional choices for citizens in low income categories. Some of these linkages are brought out by reading together new data from the National Sample Survey Organisation's 66th Round, and recent trends in retail food prices.

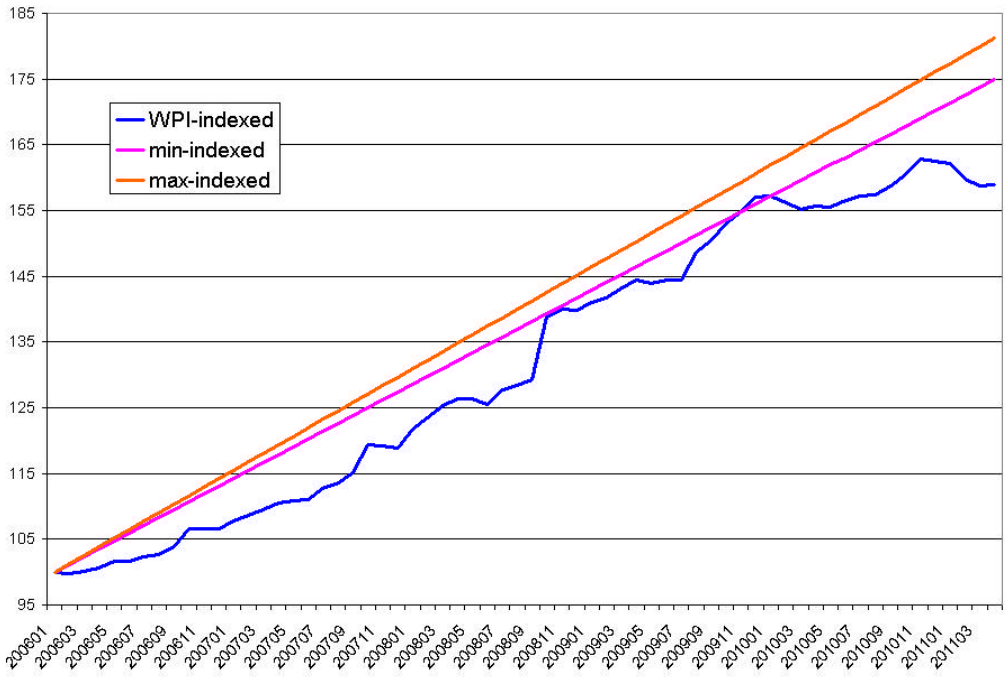
Retail prices of the separate elements of a common food basket are recorded by the Ministry of Food and Consumer Affairs (FCA), Department of Consumer Affairs, for 49 cities. This is a new series of 22 items, compared to the 16 items the FCA had maintained until early 2011. For rice and wheat there is a curious pattern to the price rise. The price band for the 49 cities moves up over time, but it also expands over that time. This can be seen in Chart 1.



With Bharat Nirman-centric infrastructure programmes deepening the connectivity between food supplying districts and consuming regions and with growing investment in agri-logistics and in food retail chains, in fact the reverse ought to happen. That is, food basket staples should be displaying greater homogeneity in retail prices. However, there are a variety of other factors influencing the price band (for the FCA's 49 cities as much as for district kirana shops) and some of these are external factors such as energy costs, new demand centres arising in fast-urbanising towns which

skew distribution costs and corner investment, and the offtake by the food processing industry which is growing at an annual rate of 14%-15%.

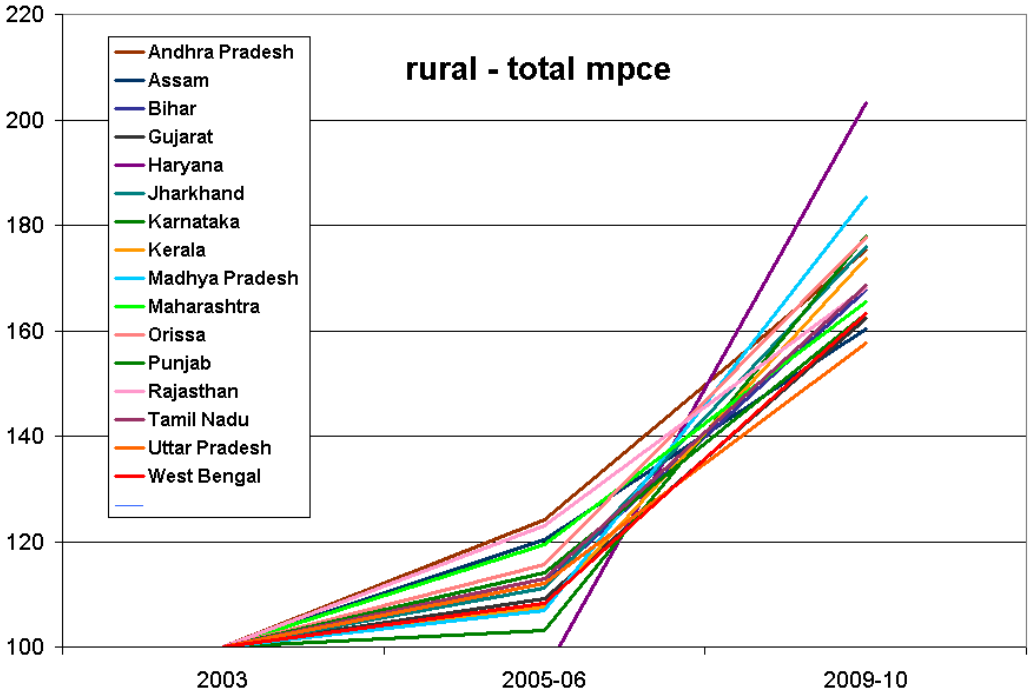
While a number of factors are at work behind the divergences over time between states and between rural and urban consumption centres, these are not reflected by the movement of the Wholesale Price Index. However, it can convincingly show the variance between types of measurements. The Office of the Economic Adviser maintains the Wholesale Price Index (WPI). After indexing the upward movement in WPI (new series 2004-05) for rice from January 2006 and also indexing the minimum and maximum prices per kilo of the 49 cities' price trendline, Chart 2 is the result.

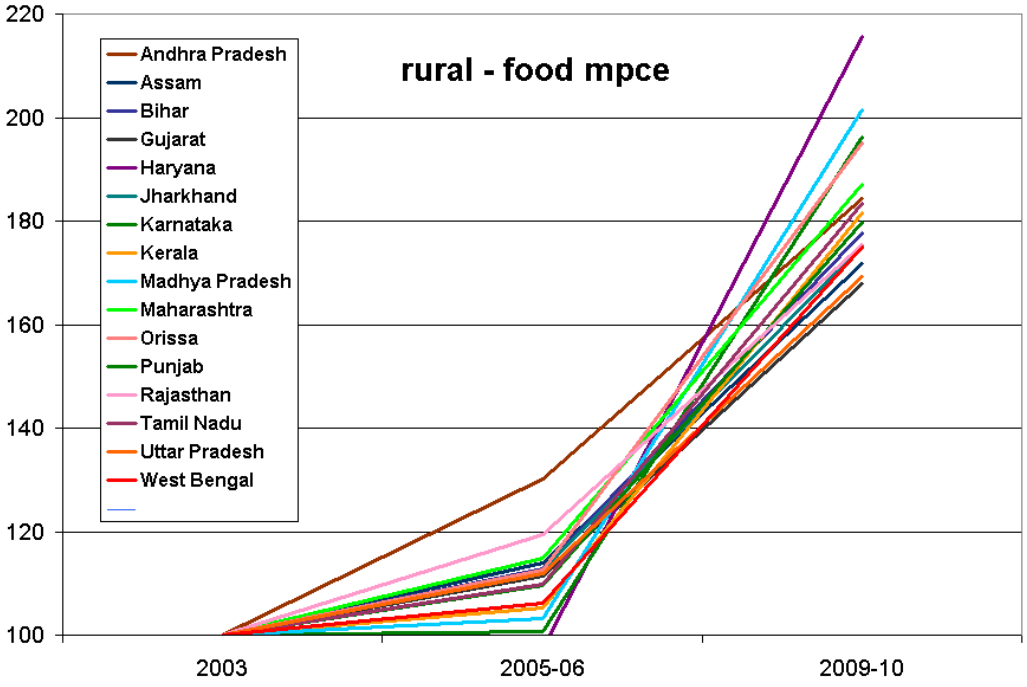


As pointed out in a number of articles and commentaries on MacroScan (www.macroscan.com) by Jayati Ghosh and C P Chandrasekhar, there is a gap between the rate of increase of CPI for food items and the WPI for those items. This we can see in Chart 2. What we also see is that from October 2008 to January 2010 the rise in WPI accompanied, more or less, the rise in the lower limit of the rice price trendline. From January 2010 onwards, the difference in the growth rates of the WPI for rice and of the rice trendline is significant. This is the 'fair average quality' of rice. Yet the gap between the lower price trendline and the WPI is now greater than it has been at any time during 2007-08, when the global food price shocks took place.

How have these price trends hurt households in the lower deciles of consumption in both rural and urban areas? One of the early results of the 66th Round of the NSSO, 'Key Indicators of Household Consumer Expenditure in India, 2009-10', provides an answer. The state- and decile-grouped summary data tables show that for 16 major states, the rate of increase in monthly per capita expenditure (MPCE) on food has been faster than the rate of increase of the total MPCE. What has been the impact in

the states? For example, with both food and total MPCEs indexed to the levels found in each state by the NSSO in 2003, the food MPCE rose by 87% in 2009-10 in rural Maharashtra whereas the total MPCE rose by 65%. In 2005-06, food MPCE in rural Maharashtra had risen 14% and the total MPCE had risen 19%.





Similarly for other major states, the food MPCE in 2009-10 was 84% above the level recorded in 2003 in rural Andhra Pradesh while the total MPCE had risen 75%. In

2005-06, the food MPCE in rural Andhra Pradesh had risen 30% while the total MPCE had gone up 24% (See Charts 3a and 3b.) In rural Karnataka, the food MPCE in 2009-10 had risen 96% over the 2003 level, whereas the total MPCE was up 78%. In 2005-06, the food MPCE in rural Karnataka had gone up by less than a percent and the total MPCE had risen only 3%. In rural Gujarat, the food MPCE in 2009-10 was up 67% over the 2003 level, while the total MPCE had risen 62%. In 2005-06, the food MPCE in rural Gujarat was higher by 11%, while the total MPCE had risen 9%. In rural Madhya Pradesh, the food MPCE in 2009-10 was higher by 101% over 2003, while the total MPCE had risen by 85%. In 2005-06, the food MPCE in rural Madhya Pradesh was only 3% up, while the total MPCE was 7% higher.

Has the NSSO 66th Round's use of three reference periods – 365-day, 30-day and 7-day – skewed these differences, as has been commented about earlier rounds that have dealt with household consumption expenditure? The Key Indicators 2009-10 report has summarised the average MPCE values under all three reference periods. From their table, we find that the 7-day reference period for MPCE varies (upwards) from the 30-day period by no more than 8-11% in the 16 states.

There is enough indication that the real retail prices of cereals have risen steeply during the period covered by the NSSO comparisons illustrated in the charts (that is, 2003 to 2009-10). For the period 2006-2009 alone, the retail price data available with the Ministry of Food and Consumer Affairs shows that the 49-city average for rice rose around 55% and for wheat rose around 63%. Whether the 7-day reference period is employed for some food items or the 30-day period for others (which is what NSSO does in the 66th Round), these serve as reliable indicators about the direction, speed and distribution of the food price rises.

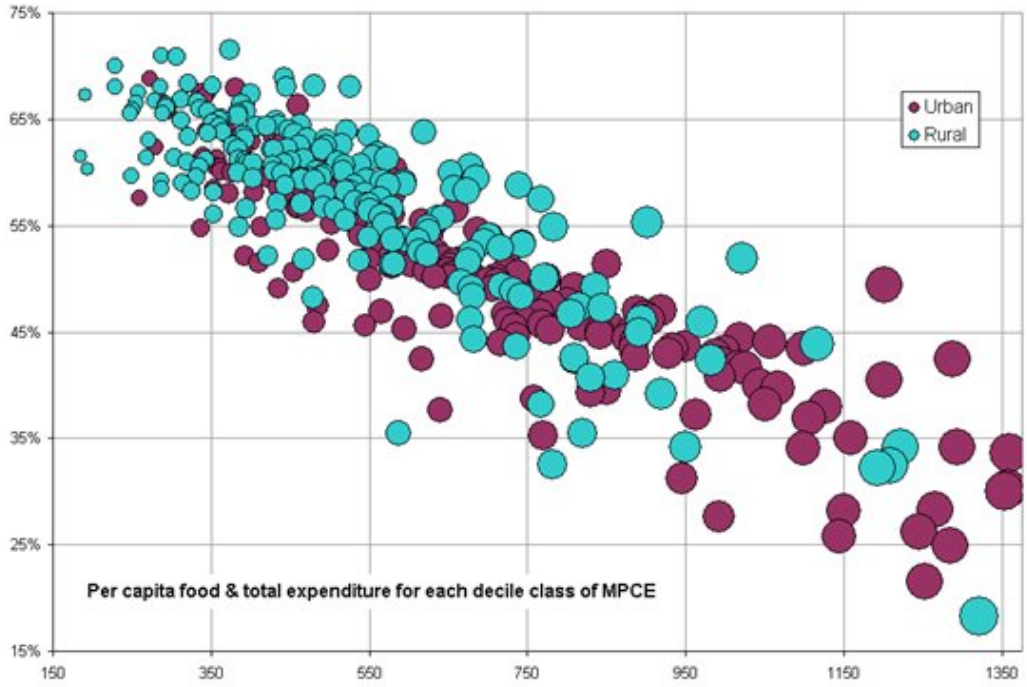
The impacts of these changes on nutritional balances for the lower income categories – and therefore on health indicators – will continue to remain confined to limited, region-specific studies until there is a national system of nutrition monitoring, mapping and surveillance in India. Even today, in the final months of the Eleventh Plan period, district-level disaggregated data from the National Nutrition Monitoring Bureau and the National Family Health Surveys are not in the public domain. As nutritionists and food equity campaigners have pointed out time and again, there is an urgent need for an independent nutrition surveillance system, following the model of the District Level Household and Facility Survey (DLHS), to monitor the progress made on malnutrition.

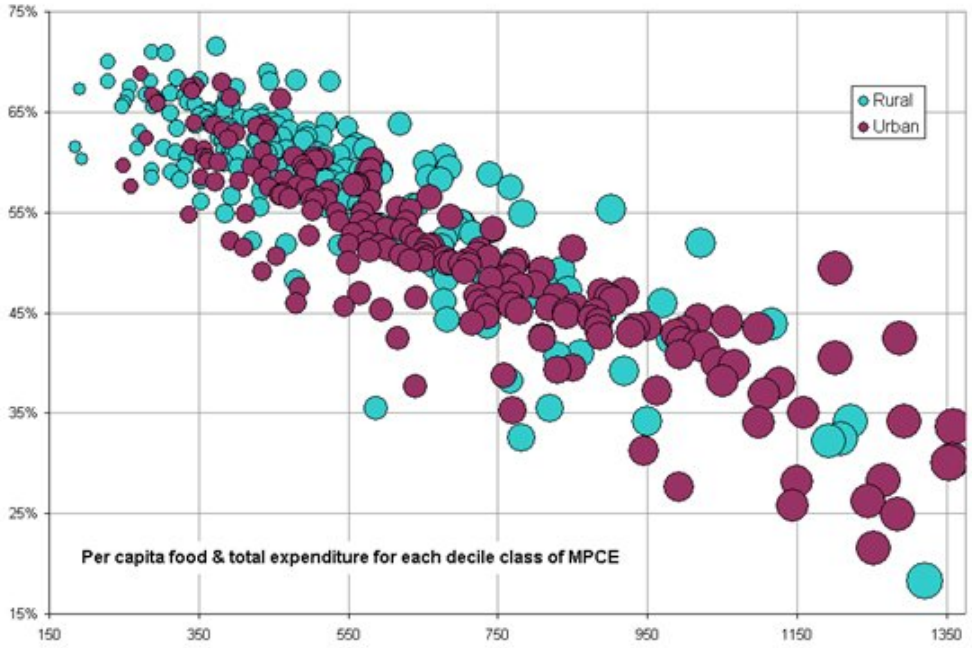
Although in the name of consultation, the Government of India routinely discusses the need for 'convergence' between programmes run by ministries, there is effectively none. The Ministries of Agriculture, Rural Development, Women and Child Development and Health do not come together to examine districts and blocks and tehsils, rather than each through their own lens, to agree on measures that benefit the households who bear the multiple burdens of high food prices, poor access to food, high burdens of communicable diseases and suffer from low health and human development indices. In its note on 'Issues for the Approach to the Twelfth Plan' (2011 April), the Planning Commission said as much: "There is a perception that government programmes, especially centrally sponsored schemes, are not sensitive enough to local needs. Also, government works in silos with little effort to achieve

convergence and co-ordination across ministries and between centre and states, even though most problems require inter-governmental and inter-ministerial co-ordination."

As long as "little effort" continues, reference and measurement differences will continue to conceal even real per kilo prices of the basic food basket - cereals, pulses, vegetables. As with the growing pool of public and civil society interventions about the right to food and the role of the PDS, a collaborative method for citizens and government departments alike to collect and pool prices may be a useful Twelfth Plan solution, one which can be used to inform policymakers and local administrations, whatever their size.

The immediate need to do so is shown by Charts 4a and 4b. These describe food expenditure as a percentage of the total MPCE (data taken from NSSO 66th Round 'Key Indicators, 2009-10) and show the impact of food inflation on the lower income deciles of the most vulnerable states for rural poor ('y' scale is the MPCE on food as per cent of the total MPCE, 'x' scale is the total MPCE with bubbles scaled by total MPCE size).





The most vulnerable lower income deciles are mainly in Assam, West Bengal, Bihar, Jharkhand and Orissa – out of the 20 major states whose income deciles are used for the charts. Out of 200 readings for households (MPCE decile classes in 20 states), 108 showed food expenditure as 60% and more of the total MPCE. The 20 decile classes which showed the highest percentage of food expenditure (out of the total MPCE) are mainly from Assam, West Bengal, Bihar, Jharkhand and Orissa, although the lowest MPCE deciles from Gujarat, Karnataka, Uttar Pradesh and Andhra Pradesh also appear, all registering a food MPCE percentage of over 65% of the total MPCE.

There is a similar distribution of states in the readings for urban poor. The 20 decile classes which show the highest percentage of expenditure (out of the total MPCE) on food all register above 61%. However, 107 out of the 200 readings for urban MPCE show expenditure on food as over 50%. Again, the lower income deciles of urban residents in Bihar, Assam, West Bengal, Jharkhand and Orissa are concentrated at the higher end of the list. The urban and rural charts for the distribution of state decile classes by percentage of expenditure on food, and by total MPCE, also show the concentration of rural decile classes towards the higher end (top and left) of the scale in the charts, as compared with urban decile classes. Urban decile classes are in comparison less unevenly grouped by food fraction of total MPCE and by amount of total MPCE.

Mapping where the lower income deciles of these charts lie together with the indicators now available from the National Family Health Survey 3 together with DLHS-3 will go a long way towards bringing the benefits of a multi-disciplinary approach to the food access, food price, health and nutrition set of problems. A note circulated by the National Institute of Public Co-operation and Child Development (NIPCCD) in July 2011 as part of the documentation for Twelfth Plan consultations indicated one kind of burden borne by the rural and urban poor populations of those states highlighted in the charts above. The NIPCCD note said that disaggregating underweight statistics (NFHS-3) by socio-economic and demographic groups reveals

that weight-for-age underweight prevalence is higher in rural areas (45.6%) than in urban areas (32.7%), and higher among Scheduled Castes (47.9%) and Scheduled Tribes (54.5%) than among other castes (33.7%). "A huge gap exists between the worst states and the best states. Bihar, Madhya Pradesh, Uttar Pradesh and Rajasthan account for more than 43% of all underweight children in India." The percentage of underweight children is the highest in Madhya Pradesh (60%), Bihar (56%), Jharkhand (57%), Chhattisgarh (47%), Uttar Pradesh (43%), Orissa (41%), West Bengal (39%), Gujarat (45%) and Maharashtra (37%).

These are concerns with considerable histories, for they have appeared in plan documents and mid-term plan reviews for well over two decades. More recently – and particularly for the current plan – in 2007, in a paper on poverty and nutrition linkages published in the Indian Journal of Medical Research, Prema Ramachandran of the Nutrition Foundation of India had discussed data from the National Family Health Survey (NFHS) 3. These data described under- and over-nutrition rates in men and women in different states. "Under-nutrition rates are high and over-nutrition rates are low in states like Madhya Pradesh, Orissa, Uttar Pradesh and Bihar. Under-nutrition rates are low and over-nutrition rates are high in states like Delhi, Punjab and Kerala. However, in this survey a new category is emerging: in Tamil Nadu, Karnataka, Andhra Pradesh, Gujarat and Maharashtra where both under- and over-nutrition are common." The paper had noted that in all states both under- and over-nutrition are more common in women, and that increasing disparity in dietary intake and physical activity between different segments of population, poverty and affluence appear to be responsible for the emergence of this dual nutrition burden. The 2009-10 Key Indicators released by the NSSO confirms this four-year-old observation.

Towards the end of the Tenth Plan period ((2002-07), nutritionists had said that the shift from food security to nutrition security had not been reflected in the definition of India's poverty line as "access to a basket of foods which can provide the balanced diet with adequate macro- and micro-nutrients". At the time, suggestions had been made that the consumer expenditure of the lowest income class, which consumed a balanced meal containing adequate pulses and vegetables, be used to define the poverty line, as this would result in a substantial reduction in micronutrient deficiencies and also have some protective effect on emerging non-communicable disease burden. This has yet to take place, even though the District Level Household and Facility Survey 3 (DLHS-3) illustrates the persistent health gaps and socio-economic conditions that contribute to them, and even though the Annual Health Survey Bulletin (2010-11) lists the districts which bear the most severe burdens of high infant mortality rate, neo-natal mortality rate, under-five mortality rate and maternal mortality ratio. These districts are in the states of Assam, Bihar, Chhattisgarh, Jharkhand, Madhya Pradesh, Orissa, Rajasthan, Uttar Pradesh and Uttarakhand.

The links between these health indicators, the burdens of under-nutrition and their impacts on women, and the distribution of districts whose rural populations must use 60% and more of their monthly per capita expenditure on food are even clearer today than they were at the beginning of the Eleventh Five Year Plan, now in its concluding months. The direction given by the Twelfth Five Year document must combine approaches and thereby strengthen outcomes between access to safe and nutritious food, the household cost of such food, balanced nutrition and good health.