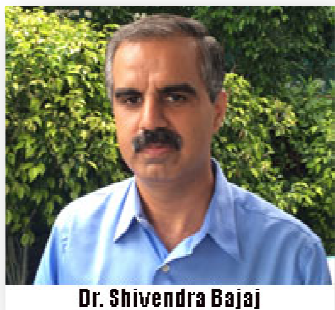


The global eradication of malnutrition rests on India getting the right 'pulse' on food prices!



India features prominently in the recently released 2016 Global Nutrition Report. The report focuses on the nutrition-related progress and commitments made globally against malnutrition and identifies opportunities for action, with a particular focus on the commitments and actions necessary to end malnutrition in all its forms by 2030. The report is relevant as India has the uncertain distinction of being the country with the 4th highest rate of chronic malnutrition globally and has the largest number of undernourished people. Interestingly many of the UN's Sustainable Development Goals link in directly or indirectly with hunger and nutrition and this also coincides with the UN's labelling of the coming decade as the 'The Decade of Action on Nutrition'.

The government push

Child malnutrition remains one of India's biggest problems. UNICEF claims an estimated one million children aged less than 5 die of causes that can be traced to malnutrition. One in approximately three Indian children suffers from malnutrition. This is not to say that the government is not aware of this problem. India is already a significant part of the solution as it has significantly accelerated its focus on addressing the malnutrition challenge – so much so that it has almost halved the chronic malnutrition over the past decade. Another commendable outcome is of India using nutrition data as part of its economic outlook. Prime Minister Modi's 2016 budget had the Ministry of Finance devote an entire chapter to the importance of combating malnutrition and stresses that health and nutrition programs offer very high returns on investment. One of the key messages from the Global Nutrition report is that the economic returns on investments preventing malnutrition are extremely high at US\$16 for every dollar US\$1 invested. Statistics in the report, however, illustrate that India still has a long way to go and continues to be off-course to reach global targets for reducing chronic malnutrition.

The problem with food inflation

India's problem of nutrition is not being helped by the unwanted increase in food inflation and studies have shown how malnutrition is directly proportional to increases in food inflation. A study done in Andhra Pradesh by Oxford University and Public Health Foundation of India for example highlighted how rising inflation causes a rise in child malnutrition levels. Between 2002 and 2006, the proportion of 'wasting' in children ('wasting' is a term used to measure the degree of malnutrition in children and refers to the rapid loss of muscle and fat that happens during phases of acute malnutrition), in Andhra fell from 19% to 18%. This improvement reversed by 2009 when 28% of children were wasting — an increase of 10 percentage points compared to 2006. This was after high inflation in food prices, beginning in 2007 and continuing through 2009. Not surprisingly the rise in malnutrition levels was observed only in children in low- and middle-

income groups but not among high-income groups. India's annual wholesale inflation rose for the third month in June to its highest levels in nearly two years. Inflation was 7.55% in May this year versus 6.40% in April and 4.80% in May last year. Potato prices in wholesale markets jumped 38.36 % between March and May this year, the prices of vegetables are up 19.54 %, pulses are dearer by 11.34 % and milk is now costlier by 9.39 %. Last year prices of pulses increased to over Rs. 200 per kg in a few regions while elsewhere it was at Rs. 160 per kg, more than double of the Rs. 75 per kg it was in 2014. Agri growth in 2015-16 is expected to be just 1.1% making the farm story quite unappetising but in all fairness to the government, its best efforts have been thwarted by two successive years of drought. Alarmed by this price rise the government swung into action and signed a long term agreement with Mozambique to import pulses. This arrangement will be in force for five years and will double pulses imports from the African country from a lakh tonne at present to two lakh tonne by 2020-21.

The challenges faced by Indian agriculture

The problem around nutrition is however a little more complex and is linked to issues that are both, socio-economic and farmer linked. At the one end there is the issue of malnutrition which is more an 'affordability' led problem where the poorest of the poor, especially women and children simply cannot afford to procure nutritious food, specifically pulses, fruits, proteins and vegetables. At the other end of the spectrum, nutrition issues also arise when people who can typically or normally afford such foods but in limited quantities and because of rising food inflation – their capacity to afford such food takes a hit. A typical case in point is the issue of pulses, an essential accompaniment in any Indian meal. As incomes increase people tend to eat less of energy giving cereals and more of protein (& vitamin rich) foods such as pulses (as well as meats, eggs and vegetables).

No other country consumes pulses on India's scale. The consumption of pulses in the country is over 22 million tonnes and rising. But output rarely crosses 19 million tonnes. Infact, the per-person availability of pulses has actually declined since the 1950s due to which imports have steadily grown. Consequently, the gap in demand is met through exports. But fluctuating output or import availability results in inflation. It is therefore no surprise that pulses have now soared to Rs. 200 per kg at retail impacting the middle and lower middle classes who depend on pulses as a major source of their protein intake.

The other problem is of low yields – primarily because pulse crops are grown in rain-fed areas and little research has gone into producing high-yield varieties. Much of India's pulses' production happens on marginal lands under rain fed conditions across Madhya Pradesh, Maharashtra, Rajasthan and Uttar Pradesh. Only 15 percent of the area under pulses cultivation has assured irrigation. Hence the monsoon has a direct effect on pulses' production in India. Just to put this into perspective pulses are grown in more than 171 countries. Average global productivity is 890 Kg/ha (2010-11 data). The highest productivity is of France that records a phenomenal 4219 kg / hectare (ha) followed by Canada 1936 kg/ha, USA 1882 kg/ha, Russian Federation 1643 kg/ha and finally China at 1596 kg/ha. India having the largest shares about 25% production, about 33% acreage and about 27% consuming of total pulses of the world. But productivity remains low having increased from 544kg/ha (2000-01) to 750 kg/ha (2012-13), which is still considerably lower than the global average. This is where the problem lies. Given issues linked to climate change resulting in droughts and/or excessive rainfall, the risk: reward ratio for farmers in rain-fed areas has grown while productivity remains stagnant. This has led to the overall availability of pulses reducing from 22.1kg/capita/year in 1951 to 15kg/capita/year (2012 data). Thus, the availability of pulses is significantly lower than the recommendations made by WHO of 29.2 kg/capita/day (or 80 gms/capita/year).

As mentioned above, the government has already signed a long-term import deal with Mozambique for pulses. As per the deal India will import 100,000 tonnes of pulses in 2016-17 from the African nation. If successful, this could lead to other African countries growing pulses for India. But this raises the possibility of pulses going the oilseeds way resulting in huge import bills. India's oilseed bills in a depressed market are to the tune of Rs. 66,000 crores and if global prices recover, could even touch Rs. 100,000 crores. And now we will be adding the import cost of pulses to this. The question is, what is the alternative?

The NITI Aayog has suggested cultivation of genetically modified (GM) pulses to ensure food security in the country and to lower the country's dependence on imports. This would be on the same lines as the government's endeavour to allow GM Mustard production in the country. The government should look at initiating a scientific debate on the issue bringing together India's agriculture experts and think-tanks, scientists and economists together. The focus should be on creating a broad consensus on the issue and incentivising India's premier agriculture universities to create high-yield varieties of pulses that can withstand high temperature, pests and are more drought resistant.

India's challenge is to ensure the widespread availability of nutrition to all segments of the population. Pulses, being a rich source of protein for India's millions is critical to enabling this. India's inability to use science to address this challenge will only lead to the ignominy of the country missing its stated promise of ending malnutrition by 2030.
