

**HOW AGRICULTURE AND MALNUTRITION ARE LINKED?**

An analysis of the links between agricultural performance and nutrition status in the different states of India, published in the Economic Times is quite enlightening. India's stable economic growth of over 8% in the last five years has received plaudits from economists internationally, but agricultural growth was below par at 2.8%, missing the Eleventh Plan target of 4%.

The authors of the article have tried to study whether better agricultural performance can bring down malnutrition levels. The level of agri-performance, namely its land productivity measured as the gross value of agriculture and livestock output per ha of gross cropped area (GVOAL/ha) was calculated for each state. This was compared to a malnutrition index constructed from under five malnourished children and thin adults between 15-49 years (National Family Health Survey-3 data).

There was a strong inverse correlation (correlation coefficient 0.75) between land productivity and malnutrition. Kerala and Punjab top the list in agri-performance and also have the lowest levels of malnutrition. Not surprisingly Madhya Pradesh with the lowest levels of agricultural performance also has the highest levels of malnutrition (*The Economic Times; 29 June, 2010*).

**GLOBAL HUNGER INDEX**

When the Global Hunger Index (GHI) was released by the International Food Policy Research Institute, German aid group Welthungerhilfe and Irish aid group Concern Worldwide, there was little cause to cheer. The Global Hunger Index combines three equally weighted indicators – percentage of underweight population, percentage of underweight children below 5 years and mortality rate of children below 5. India was ranked a poor 65<sup>th</sup> among 84 developing countries, with a GHI of 23.70, sandwiched between 23.53 of Burkina Faso and

23.83 of Zimbabwe. Pakistan with a rank of 61, Nepal (rank of 57) and Sri Lanka with a rank of 40 did much better. We obviously cannot blame it all on population pressure when we see that China was ranked 15 with a GHI of only 7.07.

When we look at India State Hunger Index (ISHI) another paradox becomes apparent. Orissa with 40% of population below the poverty level (BPL) has a hunger index of only 23, while Madhya Pradesh with 33.5% BPL has a hunger index of 30.9, which is categorized as extremely alarming. Thus, Madhya Pradesh achieved the dubious distinction of being placed under extremely alarming group along with Ethiopia, Liberia, Sierra Leone, Niger, Burundi, Eritrea and Congo, ranks 82 to 88. Punjab, Kerala, Haryana and Assam come under 'serious' hunger group, whereas 12 States namely Andhra Pradesh, Uttar Pradesh, Tamil Nadu, Rajasthan, West Bengal, Karnataka, Orissa, Maharashtra, Gujarat, Chattisgarh, Bihar and Jharkhand with increasing order of ISHI between 20.0 to 29.9 fall under 'alarming' hunger group (*The Hindu; 29 Aug, 2009*).

**WHY PULSES AND MILK ARE COSTLY IN INDIA?**

Many trans-national companies control the world market for food, fertilizer and pesticide. How did this all begin? During World War II, these companies owned factories which produced ammunitions and lethal chemicals. When the market for these ended they decided to produce fertilizers and pesticides. To create a market for this, hybrid grains were developed which had abundant yield, but required large amounts of fertilizers, pesticides and water.

India's green revolution was based on this. Today, the granaries of Punjab are overflowing with wheat and rice and we have become food secure. On the flip side, farmers who had been multicropping for generations and growing water-friendly and pesticide free millets and pulses, started switching to growing wheat and rice.

But water requirements rose and ground water was depleted. The government was subsidizing

fertilizers and soon the farmers and the land could no longer do without them. The consequence? The production and the intake of pulses and healthier traditional grains like jowar, bajra and ragi fell precipitously. Socially, eating white rice and polished wheat became fashionable. Pulse production fell, costs rose. The consumption of pulses fell in a predominantly vegetarian population with dire consequences on protein intake. Continual media advertizing of interesting new snacks (predominantly made of corn and soya with plenty of chemicals) has captured a large market of urban Indian children, who have now discarded real food for these tasty delights. This has hammered in another nail in the coffin of pulses and traditional grains.

What else happened? Initially India had a mixed farming system. Crop residue was used by cattle and in return they gave manure which enriched the land. The changeover to a commodity specific system has meant more purchased input and less non-traded ones. The price of fodder has gone up. And about

70% of the cost of milk production is due to fodder. On a year-on-year basis, the inflation in pulses was 32.60 per cent and in milk 21.12 per cent.

“There is a gap of 1.8 million tonnes (MT) between demand and the current milk supply,” Sharad Pawar, Union agriculture minister, told a conference of state ministers for animal husbandry and dairying in January. On March 17, the Centre allowed duty-free import of up to 30,000 tonnes of milk powder and 15,000 tonnes of butter oil which till now used to attract customs duty of 60% and 30%, respectively. The imported milk powder and butter oil were for reconstitution as milk, meant for supply in the summer months when shortage peaks. When milk and pulses become costly, India’s protein intake goes down. (<http://www.downtoearth.org.in/node/793>, 30 June 2010; and [http://www.dnaindia.com/india/column\\_betweeen-godowns-and-chronic-hunger-in-india\\_1401812](http://www.dnaindia.com/india/column_betweeen-godowns-and-chronic-hunger-in-india_1401812), 27 June, 2010).

**Gouri Rao Passi**  
gouripassi@hotmail.com