

Consultation Report on Strengthening the Role of Agriculture for a Nutrition Secure India

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Introduction

The [Indira Gandhi Institute of Development Research](#) (IGIDR), Mumbai and the [International Food Policy Research Institute](#) (IFPRI), New Delhi organized a workshop 'Strengthening the Role of Agriculture for Nutrition Secure India' on 13 September 2011 at New Delhi.

In his welcome and opening remarks, PK Joshi pointed out that the concerns of hunger, micronutrient deficiencies and undernourishment should take our thinking beyond growth. He also mentioned that one per cent growth in agriculture has a greater impact on poverty reduction than a similar growth in non-agricultural sector. He urged the need to look at agriculture and nutrition linkages through three lenses - economic, social and governance.

S Mahendra Dev indicated that one of the purposes of the workshop is to bring in agriculture-nutrition linkages into the policy making exercise. In particular, the twelfth five year plan. Five concerns that he raised are (a) to increase productivity of rainfed resource poor regions with an emphasis on small and marginal farmers, (b) to diversify the diet beyond cereals and include locally available nutritious food, (c) to curb food inflation, particularly for proteins like pulses, (d) a greater need for empowerment of women, and (e) convergence of agriculture with other programmes. Also see his recent co-authored policy note, [Pro-nutrition agriculture in India](#) (Dev and Kadiyala 2011).

Seasonal Hunger and Nutritional Adequacy

In his inaugural address, Vijay Vyas used some recent nutrition indicators on children and women from the [National Family Health Survey](#) (NFHS) where India, when compared with similar indicators from the [Demographic and Health Surveys](#) (DHS) for other countries, is nearly at the bottom. In addition to low levels, he also pointed out their persistence and in some cases the deterioration of malnourishment. To a large extent, India has addressed the issue of chronic hunger. But seasonal hunger, particularly during the period after sowing and before harvesting,

¹ This consultation report, prepared as a deliverable to be submitted to the Department for International Development (DFID), is a slightly revised version of an earlier write-up available at <http://misplacedemphasis.blogspot.com/2011/09/report-on-strengthening-role-of.html>. The author thanks Bhaskar Goswami for suggestions.

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for some sub-groups of population in agricultural communities is a matter of concern. However, when it comes to calorie-protein adequacy and micronutrient requirements we are still below the norm. We are not even able to provide 1800 calories to many and then again a substantial amount of what is provided is only through cereals. Thus, it is not just agriculture, but also the dietary intake, economic accessibility and environmental factors that matter. He reiterated the pivotal role of agriculture both as a supplier but also as a sector that can generate maximum demand. He called for more production, more variety in terms of nutri-cereals, fruits and vegetables and to make this possible the need for changes or a move beyond rice and wheat through policies of pricing, credit facilitation, distribution and institutional reforms among others.

Lifelong Livelihood Security

The keynote address was given by RB Singh who began by quoting [Hippocrates](#) “Let food be thy medicine, thy medicine be thy food” and then goes on to reiterate Dr Vyas’s point by presenting actual data on India’s poor nutrition indicators in a global comparative perspective, particularly with Brazil and China, for undernourishment, underweight children, low birth weight, low body mass index of mothers, greater fertility, higher child anaemia, lower expenditure on child care, lower vaccination, lower mother’s literacy and lower public expenditure. Both Brazil and China also intervened on clean drinking water, sanitation hygiene, education and awareness and backed this up with political will. He reminded the gathering about the [Copenhagen Consensus 2008](#) reiterating the need for Lifelong Livelihood Security and how neglecting issues of child malnutrition can have adverse impacts on the economy. There is immense scope for research towards leveraging agriculture for nutrition. He put up a case in favour of new technology for seeds, but on genetic engineering he said that cisgenic (genes taken from the same species or a closely related one) will have certain advantages and less regulatory requirement when compared against the transgenic (genes from other species like the *Bacillus thuringiensis* or Bt). He also highlighted the importance of home/kitchen garden in meeting most of the micro nutrient deficiencies. He praised the rich gene biodiversity of India and said that we should maintain it and propagate agro-ecologically differentiated practices. Keeping the importance of children in this concern of nutrition, he concludes by showing the picture of a child with the caption “Hold my today; I will hold your tomorrow.”

Agriculture Nutrition Disconnect

In her presentation, Suneetha Kadiyala began by highlighting the overall scenario in India, higher growth, but not doing well in human development dimension and with much higher share of poor and malnourishment (both undernourished and overweight). The agriculture sector is not doing well and one has observed a high food price index. In the [global hunger index](#) (von Grebmer *et al.* 2010), India is not doing well and the [state-specific hunger index](#) (Menon, Deolalikar and Bhaskar 2009) also does not augur well for almost all the states analyzed. To address nutrition problems, direct interventions like infant feeding and bio-fortification could address only one-third of the problem whereas indirect interventions through agriculture, social protection, education, health system, and women’s empowerment

turn out to be important. Some of the emerging findings from their recent study are as follows. (a) A cross-country analysis indicates that agricultural growth helps in the reduction of stunting, but the result weakens when Indian states are included in the analysis suggesting a poor linkage or [disconnect between agriculture and nutrition in India](#) (Gillespie and Kadiyala 2011). (b) There is a data disconnect as the existing information make it difficult to analyze the said linkage. (c) Over the years, dietary diversity has increased and the food base has moved to non-cereal sources but mother's education and household income seem to have a positive impact on diversity. Some of the key entry points from her presentation are that household income matters, agriculture influences dietary pattern, women's asset ownership is critical for decision making and nutritional outcomes, and that direct health and nutrition interventions matter.

Ramesh Chand began by pointing out the weakening link between agriculture and nutrition and the paradox of higher production as also high prices and hunger existing concurrently. He raised the concerns of India being a global diabetic capital, of whether lower consumption of 1400/1600 kilocalorie by some people is because of absence of purchasing power or low requirement based on different homeostatic conditions, and of the fact that people continue to avoid purchasing nutri-cereals even in those regions/areas where their prices are lower than rice and wheat. The homeostatic argument reminded of PV Sukhatme's dissent note to the [Report of the Expert Group on Estimation of Proportion and Number of Poor](#), pp.46-49 (Government of India 1993b).

Kaustav Banerjee, representing the [revitalizing rainfed agriculture](#), pointed out that from the perspective of availability at the aggregate level one should not be worried for foodgrains as a whole. While their availability at a local level does matter, but a matter of greater concern is the unavailability of millets in adequate quantities even at an aggregate level. Further rainfed agriculture comprises two-thirds of the farmed area but has attracted comparatively less policy design and interventions. Thus, there is the need for a new architecture to address this, which should be holistic and integrate agriculture with livestock and area development.

Food Insecurity in Rural India

The next presentation was on [Food Security Atlas of Rural India](#) by Preet Rustagi, which was based on a district level exercise for rural areas of eight states. At the district level they came up with two indicators – one on food security based on 12 indicators (of which four were on availability, six on access, and two on absorption) and an outcome indicator based on underweight children and under-five mortality. From the 281 districts, 101 are food insecure (all the 18 in Jharkhand, most (13 out of 16) in Chhattisgarh, 29 out of 45 in Madhya Pradesh and 19 out of 30 in Odisha and the relatively food secure districts are mostly in Uttar Pradesh (16) and one each in Maharashtra and Rajasthan. There is a clear connection between food insecurity and low irrigation, poor connectivity, income insecurity, hilly terrain, higher proportion of scheduled tribes and scheduled castes, higher proportion of agricultural labourers, low agricultural wages and low female literacy. However, there did not seem to be much connection with the outcome indicators. Severe or extreme insecurity in outcome were

observed in 82 districts (31 in Uttar Pradesh, 26 in Madhya Pradesh (there could be some connection here) and 15 in Rajasthan). The way forward is to focus on the food insecure and poor outcome districts on various associated risk factors, but the interventions should be locally relevant.

Gender and Other Concerns

Speaking from a gender perspective, Bina Agarwal brought into the discourse some welfare and efficiency concerns. She vouched the concept of land bank, which can act as a depositor of landowners and creditors to tenants. The landowners could be given some minimum returns and higher returns if the land is put to use by tenants. The latter can work in groups, but they need not worry about going to individuals for leasing in. She also mentioned about integrating other support services for the final tiller.

Coming back again, S Mahendra Dev raised some additional issues. The question of availability/access is important, but so is the productivity of water. This reminds RB Singh's keynote that one kilogram of potato requires 900 litres of water but one kilogram of beef requires 15,500 litres of water. The other concern is that of climate change, as it could adversely affect the yield. Other matters of concern are to bring nutri-cereals into the public distribution system, who should grow pulses (small or large farmers), the slowing growth of fruits and vegetables (or as someone said, the slowing down of horticulture revolution), bridging the gap in prices between what farmers receive and what consumers pay, and the need for convergence of different district level plan through the panchayati raj institutions. An important point that came up during the discussion is the increasing input costs and adverse impacts of pesticide usage.

In his remarks, Sukhadeo Thorat pointed out that some vulnerable social groups suffered more in terms of malnutrition. If one factors in the gender dimension, women from these social groups are found to be suffering more. To address this, there is need to have a group specific policy. He also pointed out that the larger scheme of things makes the farmer take a decision on crop production based on profitability and not on nutrition. See his co-authored policy note [addressing the unequal burden of malnutrition](#) (Thorat and Sabharwal 2011).

Lesson from States

Veena Rao, a bureaucrat, lamented that nothing much happened out of the [National Nutrition Policy 1993](#) (Government of India 1993a) and the National Plan of Action on Nutrition 1995 where the linkage between agriculture and nutrition was spelt out. However, some of these have been taken up in the Karnataka Nutrition Mission. The important ones being that nutrition is to be addressed from a life cycle approach – infants, children, adolescents, lactating and pregnant mother; bridging calorie, protein and micronutrient deficiency through appropriate intervention to different target groups; accelerating, integrating and tightly monitoring multi-sectoral ongoing programmes; achieving convergence between different programmes and

covering pragmatic gaps; involving civil society and community; launching awareness and making available nutritious and energy rich food at lower cost through public-private partnership.

This reminds one of the 'health and nutrition' interventions through the [Society for Elimination of Rural Poverty](#) (SERP) in Andhra Pradesh. In some villages where nutritious food was given to lactating and pregnant mothers, the cost of food in some villages could be met by the participants doing some packaging work for the local grocery shop, and as a result none of the child births in this village was less than 3.5 kilograms – the proof of the pudding lies in its eating.

The National Food Security Act

[Comparing](#) the Empowered Group of Ministers draft versions of the National Food Security Act to that prepared by the National Advisory Council (Right to Food 2011; also see Mishra 2011), Biraj Patnaik pointed out that the former has several shortcomings. It does not have the definitions of some important concepts such as child, malnutrition, starvation, job chart and health centre upfront and the definitions of foodgrains, homeless person and public distribution system are relatively restricted. The entitlements for a person per day have been reduced from four to three kilograms of foodgrains. There are no special provision for single women, lactating and pregnant mothers, malnourished children and emergency and disaster affected persons. More importantly the rights of the people living with starvation have been watered down. As a result, the links with nutrition is absent. He also raised the attention of the house to two other things. The global land grab in Africa where many countries (including India) and private companies (including Indian) are leasing in land to produce food to address shortfalls in their own countries, besides building food reserves to make gains through speculation and trading, is contributing to less land being available for the production of food for the local economies in Africa. The other concern was on the role of the commodities futures markets and its implication on food prices (see the [Report of the Expert Committee To Study the Impact of Futures Trading on Agricultural Commodity Prices](#) (Government of India 2008), particularly the note by the Chairperson of the committee, Abhijit Sen).

Smallholder Perspective

Praduman Kumar's talk was from a small holder perspective. It began with the contrast that at an aggregate level, India is self-sufficient in food, but it also has the largest number of hungry and poor and most of them happen to be agricultural labourer and marginal farmers with less than one hectare of land. The presentation pointed out that demand, particularly of non-foodgrain crops will increase, but supply will not. This will increase prices and reduce per capita consumption and also have an adverse affect on dietary diversification. Thus, for a food/nutrition secure India we need to focus on livestock, education, irrigation, aquaculture, horticulture, and dryland agriculture. There is a need to bridge research and policy gaps and integrate them with local wisdom. The presentation ended by showing a critical triangle with

the three dimensions being food security and agricultural growth, poverty reduction and rural development, and environmental sustainability.

Pravesh Sharma, a bureaucrat with the [Small Farmers' Agri-Business Consortium](#), made the last presentation where he outlined three things. First, he pointed out that the institutions of the 1970s that were meant to achieve a macro level food sufficiency are not appropriate to address livelihood and nutrition security. There is need to encourage producers organizations that embed technology credit and market and are also linked to pathways that foster food and nutrition security. Second, there should be diversification at the household or village level, which on the one hand will spread the risk of the small farmer, and on the other will also give the farmer household a healthy and varied nutrition basket. Third, there is a need to encourage the non-farm sector with good backward and forward linkages, as this would be of help for the small and marginal farmers, the local region as also the overall economy.

Concluding Remarks

The day's session ended with the remarks from Liz Drake, [Department for International Development](#) (DFID) and the hosts S Mahaendra Dev, Director, IGIDR and PK Joshi, In-charge, IFPRI, New Delhi. The takeaway from the exercise is that a small group will work towards formulating key policy suggestions that would be submitted to the Government of India, which is now available as a [policy note](#) (Kadiyala et al. 2011). From IGIDR's perspective, this was a nice collaborative exercise with IFPRI and in New Delhi and one is looking forward to more such endeavours in the future.

The above-mentioned policy note suggests the need for a food and nutrition security focus "including a clear policy and operational strategy, measurable nutrition security goals, adequate budget lines, and built-in accountability." Sprucing up of data systems are also required to help us understand the pathways linking agriculture and nutrition.

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