

## **Promoting food, nutrition and livelihood security for the rural poor, through a process of dialogue and action-reflection**

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Reduction and eventual elimination of overt hunger or malnourishment and covert hunger or under-nutrition, has remained a declared goal of public policy both at national and international levels for more than six-decades and was declared as topmost agenda in the Millennium Development Goals. Despite this, and despite the significant increase in food output, food nutrition and livelihood insecurity has remained a major problem, especially in the rain-fed regions.

The problems of food safety and over nutrition or obesity have also emerged as significant issues/challenges especially in urban India. At the same time degradation of almost all natural resources and ecosystems is threatening both agricultural productivity and our existence/survival on earth itself. As The International Assessment of Agricultural Knowledge, Science and Technology for Development (IAASTD) Report stated, 'Business as usual' is not an option anymore.

The problem, according to many experts from the natural and social science discipline, is not just a water and petro-chemical by-product intensive production system but relying on a smaller and smaller genetic base of plants and animals, on a top down approach to creation and transmission of knowledge, of mostly excluding indigenous knowledge and technology. It is a conscious approach of promoting centrally conceived and controlled packages, rather than focussing on the local diversity (of nature as well as cultures), of neglecting collaborative action-research methods, and not educating and empowering women, even though they play major role in animal husbandry, home-gardens and small scale family farming, which are increasingly being seen today as the solution to poverty eradication, by inter-governmental organisations, such as the Food and Agricultural Organisation (FAO).

Emphasis is placed mainly on increasing availability of food, rather than productivity of the soil /whole farm, and selling major food grains through public distribution shops, supplemented later by mid-day meal scheme for children that forego nutritious and drought tolerant maize and both major and minor millets and roots and tubers that can substitute grains). Many households cannot buy food grains, even at the subsidised prices, due to lack of sustainable sources of income/livelihood. Even food producers get only small fraction of consumer prices, due to the number of intermediaries. The input cost in the meantime has rapidly gone up, creating large scale indebtedness. Even where there is adequate availability or accessibility, there has been a problem of institution, both due to lack of nutritional education and the lack of clean water and a safe environment for the majority of households. Climate change, caused substantially by present day technology has made stability at all levels a big problem, and has increased the vulnerability of small-farm households in particular.

Now, many experts/specialists have started to acknowledge that focusing only on the quantity produced is not enough to ensure food, nutrition and livelihood security. The focus should be on trans-disciplinary research involving participation of the practitioner, especially women.

This also implies that we do not start from preconceived notions regarding solutions, but focus instead on resources available to economically weaker households, and study and strengthen their coping strategies, building on their bio-physical, economic and social assets.

It is in this context, that local innovation, documentation, action research and dialogue promoting institutions and processes, assume particular significance. Such centres need to facilitate both horizontal and bottom-up communication, in addition to disseminating expert information. Digital libraries of tried and tested technologies are increasingly available in English at the international level, and prominent among them are document repositories of the FAO and International Development Research Centre (IDRC). Several appropriate technology centres, (e.g. practical action in the United Kingdom, VITA in the United States, and Gesellschaft für Technische Zusammenarbeit (GTZ of Germany) also have virtual libraries and question answer services. FAO as well as several US Universities such as Purdue, have databases on food and fodder trees and famine foods. The *'Journey to forever'* site is a virtual library focussing on many aspects of food production through the sustainable management of natural resources. The Community Development Library has many books on various aspects of rural development loaded onto a set of CDs and the same or similar documents are available on the internet. The websites such as Educational Charitable Humanitarian Organisation (ECHO) in the US also has a lot of useful information. Many of these sites do not have special sections or selections for information relevant to the topics, and information is not presented in regional languages.

Uploading informative case studies and data regarding local plants and relevant ethno-botanical information is very limited. As a result expert knowledge of Indian academic institutions seldom describes many nutritionally rich foods that also have export potential and could develop into businesses or industries employing thousands of rural people.

Growing consumption of carrots for vitamin A and cabbage for Vitamin C for instance is encouraged by many Government Organisations (GOs), International Organisations (IOs) and Non-Government Organisations (NGOs). Though seeds for these crops are not possible to grow and save in tropical climate like India, so we promote permanent dependence rather than local autonomy.

Plants far richer in vitamins and minerals, (e.g. Moringa oelifera, Murraya paniculata, Sauropus androgynus, Hibiscus Rosa Sinensis, Basella Alba/Rubra, Vigna unguiculata, Psophocarpus tetragonolobus and Canavalia gladiata) all of which can be reproduced easily, are not well supported or propagated. In ensuring nutritional security these, as well as several non conventional fruits, including Grewia Asiatica, Phyllanthus acidus, Spondias dulcis, Zizyphus jujube, Anona species and roots and tuber crops such as Cassava/Tapioca, Yams and Taro and Sweet Potatoes can play a significant role in food and nutrition security.

Food and nutrition security can be improved and livelihoods will be more secure and resilient (climate smart), if research focuses more on:

1. Meeting the needs of local communities first, and paying special attention to the education of women and children.
2. Promoting livelihood diversification and utilising mainly local plants and animals and associated Indigenous Traditional Knowledge (ITKs).

3. Rejuvenating degraded Common Property Resources (CPRs) such as grasslands and wetlands, and encouraging community based and managed woodlots, ensuring the speedy implementation of the Forest Rights Act.
4. Redesigning food and agricultural systems, with the priority to create secure and stable livelihoods for the poor and ensuring increased 'total factor productivity, eliminating input based and energy subsidies and focusing instead on disaster risk reduction.
5. Empowerment of mutual cooperation and learning groups and local governance organisations as a top priority, and experiences of positive interventions are shared through virtual and other networks.

A series of local resource/documentation and seed conservation centres that promote a horizontal and bottom up dissemination approach, in local languages/dialects through digital, audio-visual, printed and community communication media, that encourages gender sensitive, action-reflection and learning oriented research. It must be disaster tolerant, and have a diversified-integrated approach to farm agro-ecosystem/micro-watershed management. Regeneration of common property resources is essential. We must focus on addressing the problems of the vulnerable in marginal ecological regions who are main sufferers of hunger/malnutrition and unemployment/livelihood insecurity.