

# Awareness and Capacity Building: Essential for Food and Nutrition Security in Rural India

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## Introduction

**A**griculture and livestock interventions today are market and income driven. Lack of knowledge and market domination makes rural communities vulnerable to climate change risks, which in turn increases poverty due to decreased yield and crop failures. While rural communities are more able to cope with climate variability when growing traditional crops, as they can fall back on indigenous knowledge and experience, it is especially in regard to the newly introduced crops or resource intensive cultivation practices where they are most vulnerable. Moreover the extensive dependence on chemical fertilizers and pesticides makes long term agriculture unviable, besides degrading soil quality and fertility, thus affecting crop production and crop-biodiversity.

Empowerment in food and nutrition security (FNS) implies that communities have knowledge of a balanced diet and obtain the same from traditional food crops as also from other food grains, even if recently introduced. Emphasis is on knowledge and the enabling environment for communities to grow their own food and meet nutritional demands on their own. This reduces the burden on the state to provide food aid. Knowledge will put a value to indigenous food biodiversity and will ensure inter-generational transfer and its protection.

This policy brief is an outcome of the project “Promotion of Climate Change Adaptation in Semi-arid and Rain-fed Regions of Maharashtra, Madhya Pradesh, Telangana and Andhra Pradesh” supported by the SDC and NABARD. Lessons drawn are also from experiences of watershed development projects implemented by WOTR in the villages of Ahmednagar and Aurangabad districts of Maharashtra state in India.

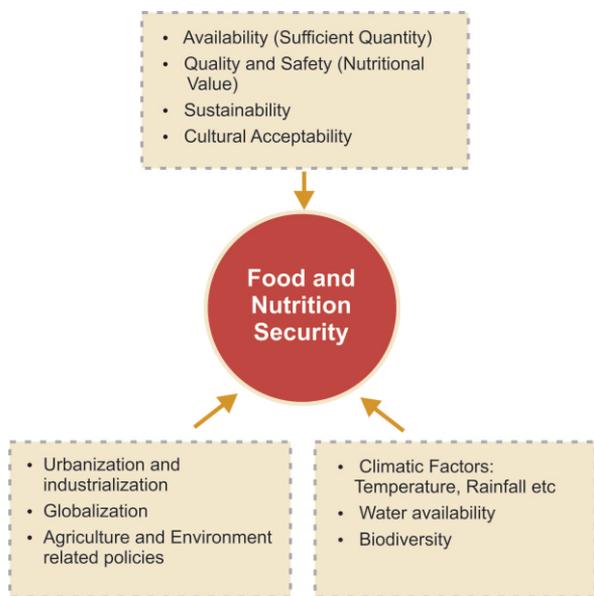
## In focus

- ⤴ Climate change affects availability of food.
- ⤴ Current production practices overlook the importance of a balanced diet that addresses essential nutritional needs.
- ⤴ Participation of rural communities, specially the poor, women, & smallholder farmers, in Food & Nutrition Security decision making & planning, is key to addressing climate change related threats.
- ⤴ There is a need to empower rural communities through increased awareness and access to knowledge and information in order to ensure food and nutrition security.

# Key Issues

## Factors affecting food and nutritional security

Addressing food and nutrition security is complex due to its dependence on many interconnected aspects - availability, quality, nutritional value, equitable access and sustainability to which are further influenced by climatic and non climatic factors (Figure 1). Climate change is an additional burden. It makes the FNS situation more complex as it directly impacts the ecosystems from which all food production systems are sourced.



**Figure 1: Factors affecting Food and Nutrition Security**

Table 1 shows the potential impact of climate variations on the major food sources. The pressures of meeting the demand of an increasing population and growing urbanization have led to a shift from locally grown indigenous varieties of crops into new to the region commercial crops and hybrid varieties.

**Table 1: Potential Impact of Temperature and Rainfall variation**

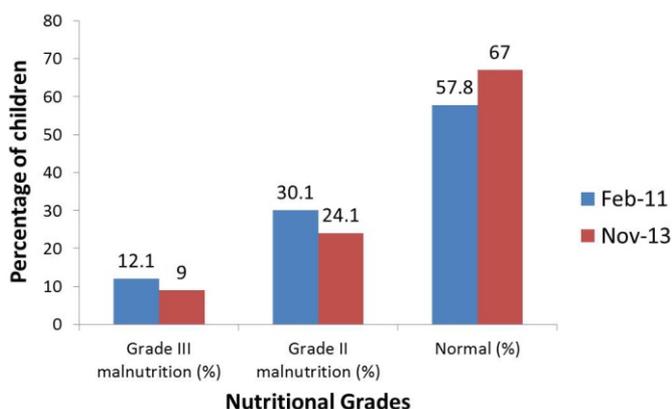
Major Food Sources			
Crop production	Livestock	Forests	Aquatic
Decline in agricultural production	Increased food, fodder and water shortages	Increased degradation of forests	Species distribution, migration and spawning of fish and other aquatic creatures affected
Yield losses	Effects on livestock metabolism and reproduction	Lower availability of forest products	
Quality of produce affected	Increased incidence of animal diseases	Shift and changes in vegetation	
Adverse effects on soil fertility			

Traditional food crops are more suitable to local climate conditions as compared to the newer crops. It is of particular importance that development agencies (government and non-government) and farmers are motivated to value and use the indigenous crop varieties.

## Nutritional Status

As a part of child care and growth monitoring activity included in WOTR's Climate Change Adaptation project, WOTR conducted a pre-project assessment in 2011 of the growth status of children in the 0-5 age groups in 16 villages of Ahmednagar of Maharashtra.

**Figure 2: Nutritional status of children in project villages (2011-2013)**



Over a two and a half year period, with training on a balanced diet and promoting the use of local products, the percentage of children in the normal category increased from 57.8% to 67%. There were over 1250 children that were followed in this project. (Figure 2).

## Facts

- The global hunger index 2012 has placed India 65th out of 79 countries.
- The Food and Agriculture Organization of the United Nations (FAO) estimates that 22% of India's population is undernourished.
- Standing at 43%, the percentage of children underweight in India is twice the average prevailing in sub-Saharan Africa.
- Anaemia is more prevalent in women who are pregnant and breastfeeding.

## Approach to ensure Food and Nutrition Security

- Enhancing and sustaining the quality of the resource base through a watershed development approach plays an important role in securing water and achieving overall development of a region. This contributes to an improved nutritional status. FNS can be ensured when improvement in the nutritional status of children and adults is included as an expected outcome of watershed development and natural resources management projects.
- Planning in terms of quality and quantity to meet a balanced diet, needs to be included in the household's plans and budget. Mixed farming systems are important as they provide for plant and animal products in the food basket. Indigenous varieties of grain and livestock that are best suited to the particular agro-ecological zone need to be promoted.
- Empowering the people and village community through Information, Knowledge and Capacity Building (IKCb) is key to self reliance for FNS. Food and nutrition security can be addressed through improved awareness among the population about the importance of a balanced diet, with a focus on regional and traditionally grown foods. IKCb which engages a community can greatly contribute to planning and action at the village and cluster level.
- One of the outcomes of the continuous nutritional education programs is that of improved haemoglobin (Hb) status of the local population. The pre and late project assessments of haemoglobin (results from a nutritional intervention by WOTR, during 2010-11) of adults in 21 project villages of Ahmednagar and Aurangabad districts showed sustained improvement of the haemoglobin status of both women and men. Of the total 279 women assessed, the percentage of women with Hb % greater than 11 has increased from 43% at pre-project stage to 69% by the end of the project. Similarly, out of a total 189 men that were assessed, the percentage of men with Hb% greater than 11 has risen from 60.6 % at pre-project stage to 88.9% by the end of project.



Grow your own food

### Key Recommendations:

- Including “improvement of the nutritional status” as an expected impact in Natural Resource Management projects will contribute to reducing malnutrition in children and women in rural India.
- Strategies need to be followed to sensitize people on the importance of healthy food habits and a balanced diet.
- Women's Self-Help Groups (SHGs) play a major role in ensuring food and nutrition security to all families, and in particular, the women and children of a village. This will ensure its continuity in practice. Similarly, farmers' groups or clubs play a major role in promoting good agriculture and livestock practices within a village.
- Dissemination of information through the print media, radio and television broadcasts, Short Message Services (SMS) and even word of mouth makes people aware of the need for food and nutrition security and the consequences thereof, if otherwise.



*Women discussing nutritional aspects of food in Borban village, Sangamner Taluka, District Ahmednagar in the state of Maharashtra*

## About Watershed Organisation Trust, (WOTR)

Watershed Organisation Trust, (WOTR) is a non-profit organisation that engages at the intersection of practice, knowledge and policy across scales, sectors, institutions and communities. Its main area of focus is participatory and integrated eco-systems based management and adaptation to climate risks. The lessons drawn are from projects funded by the Swiss Agency for Development and Cooperation (SDC), NABARD, the Governments of Andhra Pradesh and Telangana (through the Integrated Watershed Development Program) and other donors

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### Disclaimer:

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