



**Global  
Forum**  
on Food Security  
and Nutrition

# **Making agriculture work for nutrition: Prioritizing country-level action, research and support**

Summary of discussion no. 83  
From 12 September to 9 October 2012



## Global Forum on Food Security and Nutrition

### About the Document

This document summarizes the results of the online discussion "*Making agriculture work for nutrition: Prioritizing country-level action, research and support*" held on the Global Forum on Food Security and Nutrition (<http://www.fao.org/fsnforum>) from 11 September to 8 October 2012.

The following summary aims at providing readers with a general overview of the discussion, including the list of all references shared.

For the full text of all contributions and further background information please refer to the discussion page: <http://www.fao.org/fsnforum/forum/discussions/agriculture-for-nutrition>

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## Table of contents

I. Overview	2
II. Discussion of results	3
III. How to maximize agriculture programmes impacts on nutrition?	3
IV. What research is needed to support such programmes?	8
V. What can institutions do to support implementation?	9
References shared by participants	7

## I. Overview

The discussion *Making agriculture work for nutrition: prioritizing country-level action, research and support* was held on the FSN Forum (<http://www.fao.org/fsnforum>) from the 12 September to the 9 October 2012 and was organized in collaboration with SecureNutrition (<https://www.securenutritionplatform.org>).

Anna Herforth (consultant to the World Bank and FAO) and Cristina Lopriore (in her own personal capacity) facilitated the exchange.

This summary provides an overview on how participants touched on the three questions proposed for discussion.

Please refer to the topic introduction for the background, rationale and questions proposed: <http://www.fao.org/fsnforum/forum/discussions/agriculture-for-nutrition>

For the full text of all contributions please refer to the proceedings:

[http://www.fao.org/fsnforum/sites/default/files/files/83\\_Agriculture\\_for\\_nutrition/PROCEEDINGS\\_83\\_Making\\_agriculture\\_%20work\\_for\\_nutrition.doc](http://www.fao.org/fsnforum/sites/default/files/files/83_Agriculture_for_nutrition/PROCEEDINGS_83_Making_agriculture_%20work_for_nutrition.doc)

87 contributions were shared by participants from 26 countries. The majority of contributors were sent from Africa and Latin America and Caribbean (both 24%), followed by Europe (19%), Asia and North America (both 14%).

Participants represented several different sectors and types of organizations with academics and researchers as the largest group (48%), followed by NGOs (18%), independent consultants (11%), UN and intergovernmental agencies (6%), private sector (4%), government (2%), financial institutions and technical cooperation (both 1%).

The discussion built on an earlier FSN Forum debate on *Linking Agriculture, Food Systems and Nutrition: what's your perspective?* (<http://www.fao.org/fsnforum/forum/discussions/linking-agriculture-nutrition>), which focused on how a food system approach can help in identifying and understanding the dynamics and power relations that influence nutritional outcomes.

In the present discussion, FSN Forum members were invited to provide country-focused perspectives on how agriculture investments can have positive impacts on nutrition, putting themselves into the agriculture planners' shoes; they were also invited to reflect on where more research is needed and what type of institutional interventions and collaborations can help in achieving nutrition goals.

## II. Discussion of results

One of the main messages emerging from the discussion is that for agriculture to work for nutrition, agricultural projects must stay focused on nutrition outcomes and broaden their approach to include social and cultural considerations of the community / area of the intervention.

On the one hand this means, in many cases, tying up a link that previously existed in communities and that was broken – as examples provided during the discussion show – by evolving agriculture and market priorities; and, on the other hand, facing increased challenges and competing development objectives by using new approaches and tools.



*In pre-modern times, before the dominance of market ... agriculture was undertaken to produce food, not wealth .*

*George Kent, University of Hawai'i, USA*

Major threats laying in the way of achieving better nutrition outcomes result from evolving markets, incipient and existing environmental risks (including climate change and depletion of natural resources) and changing habits and behaviours. To counteract such threats and achieve better nutrition, technologies (better handling and storage), applied agronomic research (crops diversification, fortification, etc.), marketing and communication strategies based on behavioural theories and multisectoral and multistakeholder approaches can be used within and beyond agriculture programmes.

Participants also raised a strong voice in that innovation in agriculture programming should reach smallholders, include women and target specific needs of both rural and urban population; research and concerted actions among institutions should be based on such priorities.

## III. How to maximize agriculture programmes impacts on nutrition?

Numerous proposals were identified and thoroughly articulated by participants, related to all stages of programming and including specific and more general recommendations.

### Planning and measuring agriculture programmes

Prior to designing an agriculture investment programme, **stocktaking and assessment of the countries' nutritional situation and needs** was identified by many as a first necessary step; indeed, investment programmes should make the best of the specific features of the countries agriculture sector and should build on a proper identification of the root causes of malnutrition.

To aim for positive nutrition impacts, **agriculture investment programmes need clear and measurable nutrition objectives and indicators right from the outset**. Although this seems obvious, in many countries programmes are still putting the greater emphasis on quantities, on productivity and on the commercial value of crops rather than their nutritional qualities due to lack of awareness or political commitment. Many interventions, even when including nutrition, are not designed in a way to allow assessment of nutrition outcomes.



*In countries like Colombia, politics and investment are directed to crops and sugar cane for biofuel, palm oil, coffee, cocoa and banana products that bleed the economy as they are exported as raw materials and do not represent large revenue the country, or skilled jobs, plus they do not represent any contribution to the nutrition of the consumer population.*

*Eder Ortiz Roca, Universidad Nacional de Colombia, Colombia*

### Targeting: women at the forefront

Some participants placed a strong emphasis on targeting women as the main stakeholders for agriculture programmes aimed at achieving nutritional objectives; **women need to be empowered** for making decisions to plant green vegetables, to use seasonally available locally grown nutritious foods and to improve their and their children's diets.

Interventions (and research) need to benefit **smallholders** and address the agri-food value chains, including processing, distribution, retail and marketing alongside the on-farm interventions that promote the production of nutritious food.

### What to include in the programmes

Specific measures listed by participants to include in agriculture programmes to maximise impact on nutrition are:

- **Diversification of production:** broadening access to nutrient rich diets through diversification of crops and livelihoods should be the primary approach of agriculture; diversification also represents a value both for humans and ecosystems;



*In Hawai'i taro and other foods were produced to meet people's needs. When the settlers came along, and decided to produce rice for profit, rice exports, mainly to California, reached more than 13 million tons in 1887. The disconnect between farming for food and farming for money became clear. The people whose taro supply was threatened were not the people who profited from rice exports.*

*George Kent, University of Hawai'i, USA*

- **Crops rich in micronutrients and underutilised / orphan crops:** investment programmes should be more crop or area specific and sustain local / traditional crops and knowledge; changing priorities for agriculture has often deteriorated this link between agriculture and specificities of the area. Participants also mentioned protecting uncultivated foods that in some areas represent a primary source of good nutrition;



*The 1960s Green Revolution, which averted famine in India and Latin America through the deployment of high-yield crop varieties, is often hailed as one of the greatest humanitarian achievements of the 20th century. Yet this effort focused largely on globally traded staples, neglecting locally important crops. The outcome partly explains today's global malnutrition crisis. The countries reached by the Green*

*Revolution became massive producers of rice, wheat, or maize, but at the expense of the crop diversity necessary for well-rounded diets.*

*Daniel Bornstein, Dartmouth College, USA*

- **Horticulture and vegetable / urban gardens** as a useful / complementary solution to maintain adequate nutrition;
- **Investment in technology for off-seasonal agricultural production / storage and conservation facilities** to reduce food post harvest losses and food waste which have a huge impact on the quantity and nutritional quality of food available;



*Africa experiences huge postharvest losses caused by deterioration and rotting of fresh farm produces, which implies that the final product reaching the consumer is nutritionally flat.*

*Murasi Mulupi, Kenya Red Cross Society, Kenya*

- **Access to markets and to food**, by improving infrastructure and developing local markets that are accessible to smallholders;
- **Investment in fortified and drought resistant crops** was also mentioned by some participants;



*Work by GAIN and other institutions to promote orange-flesh sweet potato in Mozambique focused on providing services to farmers, but also linked farmers through value chains to merchants, urban retailers and small-scale food processors. The project supported retailers in urban areas to acquire a reliable supply of high quality sweet potato tubers, and to promote and market their health benefits to consumers based on tubers' orange colour. Projects have also piloted food products that incorporate orange-flesh sweet potato, such as so-called golden bread, in order to make the food accessible and desirable to a much wider population group, both on- and off-farm.*

*Ewan Robinson, Institute of Development Studies, United Kingdom*

**Fertilizers or non fertilizers?** The use of fertilizers and in particular relationships between fertilizers and nutrition was debated. A minority argued that agriculture programmes should introduce proper use of fertilizers to benefit food security and nutrition by limiting losses and making the most of the natural resources used; flex fertilizers systems and the 4R approach – right source at the right rate at the right time and right place – were mentioned in this regard as well. Others stressed the impacts of chemicals on the health of humans as well as on soil and plants and that their use must be stopped or minimised to its lowest possible level; alternatives to fertilizers use include management practices to enhance soil fertility, including enhancing soil biota.

## Enabling nutrition outcomes through education and tackling behaviour

Good nutrition is a result of a complex mix of factors and experience shows that access and availability of nutritious food does not necessarily lead to the improved nutrition outcomes.

A fundamental enabling condition for nutrition outcomes is consumer' awareness and knowledge of the importance of nutrition; **education and awareness raising** was by far the most stressed and discussed aspect and was regarded as an essential catalyst for sustained nutrition impact.

Many participants mentioned education and promotion campaigns among the activities that need to be strengthened and promoted, also within research programmes (see below); these interventions should include traditional knowledge.

In particular **behaviour change** is an area that needs further consideration and application when tackling food and nutrition habits and concerns.

Some participants raised questions on how to concretely foster behaviour change with regards to nutrition, considering how many complex and changing factors ultimately influence food choices; as several contributions point out in different ways, raising awareness about a problem which is often not even perceived as a problem can be extremely challenging.



*Raising awareness about the problem whose impact looks normal is extremely challenging. This is particularly true amid myriad other development priorities whose impacts are visible. A robust country- or region- specific communication strategy is essential, including knowledge on how households and communities perceive nutrition, and what and who are the key influences on raising nutrition awareness.*

*Kathleen Kurz, DAI, USA*

The same challenges are on the investor's side: how to convince a policy-maker to invest in an agriculture-nutrition programme when other development priorities are much more visible or can achieve more visible and shorter term results?



*You have to dress 'nutrition' in different clothes. Nutrition is really difficult to sell at face value; the mover-shakers of the mainly donor-funded development world need to be attracted into investing in some other way – and you also have to encourage recipients to think differently. Would you rather have a high dam, a new capital city or a national nutrition programme if you ran the government? How do you want to be remembered?*

*Peter Steele, FAO, Italy*

Investments should also be directed to training and capacity building of **extension workers** who need to be equipped with knowledge on correct food combinations, preparation, processing and storage for households and communities.

Further, many participants argued that for agriculture - nutrition linkages to become stronger, **cross sectoral collaboration** among institutions (as divisions between ministerial responsibilities often undermine potential results of programmes) and among actors in the food chain / food system are necessary in order to create an enabling environment for nutrition improvement.



*In Sub-Saharan African countries, and particularly in Cameroon, there is no clear link between agriculture and nutrition. At the institutional level, agriculture falls under the Ministry of Agriculture, while nutrition is dealt with by the Ministry of Health.*

*Christine Andela, Cameroon*

Such collaborations should involve the **private sector**, whose influence on consumption patterns and, increasingly, on science and technology, should not be overlooked.

### Sustainable agriculture and local production

For and beyond nutrition objectives, participants raised a strong voice on the direction **agriculture development** should take, providing arguments as to why sustainable agriculture, including organic farming, should be pursued and supporting a vision of agriculture centered on the human being. Not only does this benefit biodiversity and nutritious qualities but also it ensures soil protection, increases resilience, and empowers farmers.

The aspect of the importance of **local production** was highlighted as being crucial for strengthening nutrition. The linkage between nutrition and agriculture is often stronger and more easily identifiable at the local level than in a commoditized production system.

However, the approach of many development projects is that the local level is supposed to benefit from national and global action and little attention is given to the local level's role in shaping agriculture and nutrition linkages. Participants therefore stressed the need to increase the understanding of indigenous knowledge and the nutritional value of local production habits and that interventions should be designed in a way that they facilitate and support local decision making.

## IV. What research is needed to support such programmes?

Proposals on what research should address to support the effectiveness of agriculture programmes converged around two main areas:

1. Improved **monitoring and evaluation** of agriculture projects for nutrition results. Lack of suitable tools and indicators to measure outcomes of investment programmes hinders their effectiveness by not allowing to monitor results and correct actions; many saw this as a major flaw of existing programming and called for the elaboration of agreed metrics that can be shared and understood by all actors / sectors involved.
2. **Dissemination and capitalization** of already existing research, in particular for smallholders. Many contributors expressed concern (and sometimes frustration) about how research is only marginally if not at all made available to relevant stakeholders and to smallholders in particular; for the latter to benefit, care must be taken in that research results of research are translated into languages and formats that can be understood and implemented. Participatory approaches can support the implementation of good practices.

Other areas where research is felt as necessary are:

1. **Crop research and varietal selection for nutrition:** in particular, development and promotion of **underutilized crops and foods** and use of traditional knowledge related to nutrition and research on biofortification;
2. **Food waste / losses / damage:** where, when and why food is being lost, damaged or losing nutritional value across the supply chain and how it can be reduced or prevented;
3. **Storage and preservation techniques** to be used in different regions;



*In pastoral regions, there is need for strong research in the traditional milk and meat preservation techniques that are safe and acceptable, to be used in different regions. This is a grey area, that needs specific clarifications to assist in implementation of livestock programs that have an end objective of improving food security and nutrition- this has been a clear gap even in the horn of Africa.*

*Angela Kimani, FAO, Kenya*

4. Adaptation of agriculture to multiple adverse impacts of **global warming and climate change**;
5. **What influences consumer behaviour**; which are the best ways of communicating and successfully implementing behaviour change communication?
6. **What are the institutional frameworks** needed for effective implementation of nutrition-sensitive programmes and policies and what are the interrelationships between agriculture, nutrition and the economy at large, which operate independently from each other. For instance, the impacts of changes in trade policies or other economic policies on nutrition and health or what would an healthy and nutritious diet imply for the agriculture / food system.

## V. What can institutions do to support implementation?

Inter institutional collaboration and good governance were echoed throughout the discussion as key elements to strengthen the contributions that agriculture can provide to nutrition.

Participants suggested that development agencies and institutions should support efforts to improve nutrition by implementing the recommendations voiced during the discussion and, specifically, by:

- Supporting research and evaluation of agriculture–nutrition projects, with financial and human resources, and with tools, methodologies, and developing “mutual metrics” to consistently and accurately measure progress and impact;
- Advocating for nutrition and showing that investments in nutrition have high returns;
- Helping to build and reinforce the capacities of institutions and ministries involved;
- Fostering dialogue and communication across sectors and institutions and helping in knowledge sharing, disseminating research and important reports;
- Strengthening local communities by developing their capacities and by involving them directly into nutrition programming using participatory approaches;
- Strengthening and supporting existing frameworks (ex SUN) and making sure programmes and legislation include nutrition (CAADP);
- Collaborating and working towards a common goal and understanding of what “nutrition sensitive” interventions should look like and building consensus on that as defining multisectoral approaches and effective nutrition sensitive interventions is proving to be difficult at country level;
- Including the private sector in nutrition related activities, campaigns and research.

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