The aim of the FSN Forum online discussion on “Linking agriculture, food systems and nutrition” (open from 6 to 26 February 2012) was to gather views and experiences on this topic and to raise awareness of the roles the different actors in the food system can play to improve nutrition outcomes.

The discussion was facilitated by Corinna Haweks (City University, London, UK) and Karel Callens (FAO, Italy) and attracted over 100 contributions, providing a broad perspective on current knowledge and highlighting a strong interest and willingness to share ideas on how to go about advancing this issue.

The role of agriculture and the food system approach in improving nutrition

Agriculture has a fundamental role to play in improving nutrition but the linkages between agriculture and nutrition, while apparently obvious, are not as straightforward in practice.

On the one hand, many agriculture projects haven’t been designed with explicit nutritional objectives but have rather been focusing on production of calories to increase caloric intake or on economic factors such as the growing of cash crops. On the other hand, there are cases where such linkages have been lost and need to be reshaped: modern food systems have caused communities to lose knowledge on traditional and local foods in favour of less nutritious processed options; or the takeover of monocultures has caused loss of biological and dietary diversity.

Participants felt that taking a broader food system approach helps in gaining a deeper understanding of the dynamics and power relations that influence nutritional outcomes as it highlights interdependencies along the food system. This means considering the role of agriculture and of different actors along the food supply chain, not least the consumers. In fact both objective factors (what is available and affordable) and subjective factors (culture, habits and preferences) should be analyzed as they greatly influence nutritional outcomes.

Success stories and lessons learned

Agriculture can contribute to nutritional outcomes through the cultivation of underutilized crops, though biofortified foods, through the employment of micronutrient enriched fertilizers and by other improved agronomic practices such as crop rotation and conservation tillage.
Examples of policies and projects that could foster nutritional outcomes of agriculture include: nutrition sensitive public distribution systems and public procurement systems for schools and canteens which consider nutrition.

The design of alternative farm and food policies with explicit public health goals, and developing stronger links of agriculture with the health sector in general have also been identified as ways forward.

Successful projects identified by participants tackled people’s eating preferences and habits and their nutritional awareness and education. These projects were in most cases inter-sectoral and multidisciplinary. A weak aspect remained the monitoring and measurement of outcomes. Lack of common metrics and securing the involvement of the institutions responsible for monitoring the nutritional status have been identifies as challenges to overcome.

**Gaps in knowledge and practice**

When linking agriculture and food systems to nutrition there seem to be different levels of gaps related to awareness and knowledge; there is no quick fix solution and the evidence base on what works and how is only slowly being built up.

Overall gaps, hindering stronger agriculture-nutrition linkages are still evident in:

- **Agricultural techniques:**
  - role of indigenous crops and traditional knowhow;
  - homestead production and vegetable gardening;
  - the contribution of traditional livestock to nutrition;
  - biodiversity.

- **Communication and education:**
  - Role of nutritionists in communication and in redirecting human behaviour patterns with respect to food consumption;
  - Women education for child feeding;
  - Extension services for women farmers.

- **Social aspects:**
  - Social barriers that contribute to lack of nutritional levels such as corruption in public distribution systems;
  - Relations of power in and across households that reproduce inequalities and aggravate food insecurity.

- **Policies:**
  - Aid agencies and trade policies seldom support the role of sustainable agriculture;
  - The participatory aspect of projects and programmes is often underdeveloped.

Some participants also sensed limited motivation and awareness of the importance of nutrition among decision makers at global and national level as a reason for inadequate nutritional gains and drew attention to interventions that could help communities regain control over their food systems and improve nutrition at the local level such as:

- Creating and supporting consumer – producers alliances;
- Carrying out nutrition education programs targeted at mothers and children;
- Raising awareness among communities on the importance of consuming local products;
- Promoting traditional homestead farming and horticulture.

Another gap seems to be the little analysis on the role of the private sector (retailers and food industry) in shaping consumer demand.

In general term it was agreed that agriculture should be considered as multi-functional, producing food, water management and biodiversity outcomes as having the clear goal of improving not only food production by also nutrition.