Linking Agriculture, Food Systems and Nutrition: what’s your perspective?

Summary of discussion no. 76
From 6 February to 2 March 2012
About the Document
This document summarizes the results of the online discussion “Linking Agriculture, Food Systems and Nutrition: what’s your perspective?” held on the Global Forum on Food Security and Nutrition (http://km.fao.org/fsn) from 6 February 2012 to 2 March 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://km.fao.org/fsn/discussions/agriculturenutrition

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I. Overview

From 6 February to 2 March the FSN Forum held an online discussion on "Linking agriculture, food systems and nutrition", with the aim to shed some light on a topic that is gaining increasing attention in international development and to raise awareness on the roles different actors can play to improve nutrition outcomes.

Corinna Haweks (City University, London, UK) and Karel Callens (FAO, Italy) facilitated the discussion.

A similar topic was run in parallel on the Food and Nutrition Security community of Solution Exchange India, with a stronger focus on the Indian case. Both discussion fed into each other.

With over 100 contributions and numerous references, examples and case studies, the discussion provided a broad perspective on current knowledge and highlighted a strong interest and willingness to share ideas and experiences and to learn how to go about in this challenge.

This summary provides an overview on how participants touched on the four questions proposed for discussion and on how different actors involved perceived their role in improving nutritional outcomes.
II. A food system approach to improve nutritional outcomes

Economic and agricultural growth are not always linked to improving nutritional outcomes for a number of reasons. To gain a deeper understanding of the dynamics and power relations that influence nutritional outcomes, most participants agreed that taking a food system approach is beneficial, if not unavoidable.

As a major component of the food system, agriculture has an important role to play in incorporating nutritional aspects and in responding to the needs of people and the environment. 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.

Still, many agriculture projects haven’t been designed with explicit nutritional objectives and have rather been focusing on caloric intake or on economic factors such as growing cash crops instead of local crops with high nutritional value.

Despite the doubtless opportunities for agriculture to contribute to improved nutrition, however, evidence shows that other factors such as health, education and infrastructure may be significantly more important than agriculture.

Furthermore, people’s choices regarding which kind of food to eat are guided by both objective (what is available and affordable) and subjective (habits and preferences) factors. If transportation of a certain food item is problematic it will not be available on the local markets or might be too expensive to buy. But and most importantly, even when nutritious crops are available this does not in translate automatically into better nutrition, as people have their very own preferences and need to understand the value of eating diverse and the right type of food.

In some cases, the advent of modern food systems has been causing communities to lose knowledge on traditional and local foods in favour of less nutritious industrialised and processed options. In other cases, loss of biodiversity has taken place due to the favouring of monocultures. Here the linkages between agriculture and nutrition need to be reshaped involving all actors concerned.

Overall it can be said that there is the need to tackle nutrition from farm to fork – all the way form production to consumption – involving all stakeholders, in particular those who can influence consumption patterns. Unless interventions consider interdependencies along the food system, it will be difficult to substantially strengthen the linkages between agriculture and nutrition.

With this in mind, FAO, as the UN Agency dealing with food and agriculture, is focusing efforts to make sure that all those concerned with food and agriculture are aware of the significant contribution that the food system can make to better nutrition.

Bioversity, which is part of the CGIAR Consortium of International Research Centres, has launched a 10 years nutrition strategy that defines a road map for research on how agricultural biodiversity can contribute to improved nutrition.

The World Bank is promoting SecureNutrition, an initiative aimed at bridging knowledge gaps between agriculture, food security and nutrition.
III. Interventions that can help to prioritize and leverage nutritional outcomes

Some participants sensed limited motivation and awareness on the importance of nutrition among decision makers at global and national level as a reason for absence of nutritional gains. Policies in many developing countries still focus too much on the increase of monocultures of staple crops and key players in the food system are often not interested in promoting nutrition and diet diversity.

Among the interventions proposed to help leverage nutritional outcomes were:

• Make nutrition extension programmes part of countries’ national agricultural development programmes;
• Integrate nutrition in public procurement systems for schools and canteens;
• Integrate nutrition in public distribution systems;
• Design alternative farm and food policies with explicit public health goals;
• Take advantage of international events such as the upcoming ICN 2013 conference to raise awareness.

Many contributors also drew their attention to interventions that can help communities to regain control over their food systems and improve nutrition at the local level, including:

• 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.

“Consumers in rich countries have lost “grandmother’s knowledge on how to cook things. We teach people everything including how to drive, why not teach people what and how to eat. We need to urgently put in place food and nutrition education programs, to help families eat better.”

Jose Graziano da Silva, FAO’s Director-General
IV. Success stories and lessons learned

Participants shared examples of policies and projects contributing to improved nutrition. Some projects had agriculture production as their main goal but where able to achieve educational and nutritional improvements while others directly targeted nutrition needs.

Successful projects where in most cases those taking the following approaches:

- Specific targeting;
- Participatory approaches to tackle people’s eating preferences and habits as well as awareness raising and education;
- Inter-sectoriality and multidisciplinarity.

A weak aspect identified remains the monitoring and measurement of outcomes, which requires using nutrition indicators and the involvement of the institutions responsible for monitoring the nutritional status.

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CaFAN – On the agriculture side: farmers working in clusters to provide healthier food

CaFAN (the Caribbean Farmers’ Network) is playing a facilitating role in the Caribbean region to enable different organisations to work together for improving agriculture so that it responds to people nutrition needs and provides sustainable products and livelihoods for farmers.

With support from FAO CaFAN has implemented a project that successfully boosted the production of roots and tubers in four member countries. Encouraging farmers to work in clusters, and through training and capacity building initiatives, this project promoted the ability of farmers to produce high quality, healthy, and nutritious food consistently, efficiently, and in the right volumes for the right cost.

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An agriculture–nutrition success story in Micronesia

The Island Food Community of Pohnpei was established in 2003 in the Federated States of Micronesia after dietary assessments showed a remarkable shift away from traditional diets toward diets heavily reliant on imported, highly refined processed foods and leading to increasing vitamin A deficiency and diet-related chronic diseases.

The mission of the Island Food Community was to promote the production, consumption and marketing of locally grown nutrient dense island foods in order to regain the dignity of relying on home food production, attain a greater degree of food security for the state, rescue cultural values and improve health of the people basing on the community participation and empowerment. Through a strong commitment to working with local communities it has been possible to document measurable achievements in both increased production and consumption of disregarded yet highly nutritious traditional crops.
Sharing best practices in the community

Child Fund India, an NGO working on child development issues, promoted a program called PD–Hearth under which members of particular rural communities were asked to identify healthy families and the food and the cooking practices these were using. Members gathered daily and commonly cooked different dishes using local food materials. At the end of the project they were invited to observe the health benefits and share the learning with the aim to continue employing the best practices.

Better nutrition for school–children in India

In India a vast network of NGOs and CSOs is involved in providing the largest number of children in the 0–6 years age group one hot fresh cooked meal a day (including a mix of cereals, pulses, vegetables and milk). Success depends on the ability of the community kitchens to take ownership of this initiative and to provide the space and support it needs.

The Ghana School Feeding Programme

The Ghana School Feeding Programme is an example of policy instrument that uses the food system to link agricultural production of a community to the consumer, creating market access and improved incomes for the farmers and improving the nutrition of school children.

Home gardening projects

In a home gardening project carried in the District of Piura in Peru and aimed at improving household nutrition, the beneficiary families were provided with certain types of seeds to plant and use the production for self consumption, but as the vegetables were not part of their traditional diet, most families didn’t use these for consumption and offered them to their animals.
Experiences from Brazil: the Food Acquisition Programme and the National School feeding programme

In the Food Acquisition Programme (PAA), the Federal Government of Brazil purchases food directly from smallholder farmers and distributes it to social assistance institutions, food banks and public facilities (like popular restaurants). In a country like Brazil, with a large proportion of smallholder farmers in the agriculture sector, and a large proportion of food insecure households/individuals, the programme can be very powerful in leveraging nutrition while shaping the food chain. It promotes social and economic inclusion in the rural areas and addresses food insecurity, while the State fulfils its responsibility towards the right to food.

The Brazilian National School Feeding Programme also works with the same perspective. It is a policy requiring public schools to allocate at least 30% of food expenditures to purchasing food directly from local smallholder farmers.

Enterprise EthioPEA

PepsiCo has undertaken an initiative to incorporate nutritional outcomes into food systems in Ethiopia. The initiative aims to establish the processes, infrastructure and capacity to raise Ethiopia’s standing in the world as a major chickpea producing and exporting nation. Chickpea production is expected to play a critical role in agricultural production as a driver for economic growth and food security. Improvements in quality and yield could contribute to increased income among smallholder farmers. As a cost-effective source of protein that accounts for approximately 20% of protein intake in the population, increased production, improved quality and lower domestic prices have benefited the Ethiopian rural and urban population.

Orange Sweet Potato (OSP)

From 2007-2009, HarvestPlus and its partners distributed orange sweet potato (OSP) varieties that were rich in vitamin A to over 24,000 households in Mozambique and Uganda with the goal to provide more dietary vitamin A. Over 60% of project households in both countries adopted OSP replacing the traditional white or yellow sweet potatoes that are low in vitamin A. In Mozambique, many farmers also started cultivating OSP. Total vitamin A intakes among children and women increased significantly in both countries with the OSP contributing more than 70% of children’s vitamin A intakes in Mozambique.
V. Gaps in knowledge and practice

Good nutrition is a result of many factors, some of which can play an even greater role than agriculture and the food system, such as safe drinking water, basic education, basic health services etc.

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

On the one hand, agriculture should be considered as multi-functional, producing food as well as other services, water management and biodiversity outcomes. On the other, agriculture needs to build stronger links with the health sector. There is also little analysis about the role of the private sector (retailers and food industry) in shaping consumer demand. For instance, while industrialized countries are starting to recognise this gap and designing alternative farm and food policies with explicit public health goals, this awareness is much weaker in developing countries.

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 children feeding and extension services for women.

- 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.
VI. Roles of the actors involved

**Economists**

Economists can play several roles in strengthening the agriculture nutrition linkages. They can help understand the food system, measure whether nutrition related interventions are having their intended effect, and assess the costs of an intervention in relation to its measurable benefits. Economists can help generate data to understand the demand and supply of different foods and work with nutritionists to assess the needs of specific nutrients. Economists can also appraise the market situations and understand the cost of producing and the consumer acceptance of a specific product.

**Farmers**

Farmers play the most fundamental role in securing global access to food, however agriculture as one of the main pillars in ensuring food and nutrition security cannot just be the responsibility of farmers but of the whole nation. Farmers need to be involved as key partners in improving household nutrition and delivering nutritional interventions and need to be supported by the government and by the private sector.

Without properly responding to their needs in the current economic, social, and environmental landscape, there is a substantial risk of losing farmers as a source of truly nutritious crops as economic pressures might bring them to produce cash crops or nutritionally poor crops.

Farmer associations can help farmers to produce high quality healthy and nutritious food consistently, efficiently and in the right volumes for the right cost. The benefits are evident in greater economies of scale in production, marketing and value addition. Associations can also reduce the distance between farmers and consumers by organizing village markets and by taking care of logistics.

**UN agencies**

Embracing a food system approach, the different Un agencies active in a certain area need to closely collaborate and recognize the role they can play in supporting the food systems. Some focus on short term relief and address immediate nutritional need (WFP, UNICEF) while others look to the longer term issues of food production, incomes/demand, and governance, which determine access to food for a the huge urban populations of the future (FAO, ILO, UNIDO etc).

**Regulators**

Authorities in charge of regulating food production and sale need to take a stance in fighting malnutrition. Public policy can be used to change unhealthy eating habits and sustainable consumption can be promoted by passing and enforcing legislation requiring labelling of processed food and of drink containing added sugar, salt or artificial sweeteners and to include health information. Regulators can also play a role in setting the prices of basic foodstuff. When nutritionally less valuable products are highly subsidized this can result in overconsumption with resulting negative nutritional outcomes.

**Food processors**

Food processors need to become part of the solution by changing their production methods, embracing processes which lead to healthier food. Both regulating bodies as well as consumers
need to apply pressure in order to prompt a change in the business models of food processing companies.

**Nutritionists**

Nutritionists can provide technical expertise to other disciplines and sectors that strive to have more nutrition outcomes, such as agriculture, ecology, and business enterprise for example. However to work in systems, nutritionists need to be part of a larger team that involves also those working in other sectors including governments, health, education and social protection. Nutritionist will have a increasingly important role to play that goes beyond the pure scientific work. These professionals need to co-design and monitor interventions and programmes and need to advise governments, associations, companies and consumers on how to best make use of available food.

**Consumers associations**

Consumers association often fail to achieve their goal as they tend to limit themselves to complaining when something such as food poisoning happens. However these associations should play a much more proactive role, by raising awareness of good nutritional practises among the consumers and by proposing policies.

**Youth**

There is the tendency, particularly among youth in developing countries, to ignore, neglect or even abuse indigenous foods in preference to fast foods. The health consequences of this attitude are well known. As the influence of youth on society is very strong, they need to be involved in the processes of linking agriculture, food systems and nutrition in terms of change of mind sets, education at home, community and school systems.

**Celebrities**

Celebrities and goodwill ambassadors can help raise awareness of many issues regarding nutrition. Celebrities have the power to influence people habits and preferences. By bringing the issue of nutrition to peoples’ minds, by lobbying for a healthier diet and by making consumers aware of the power, celebrities can wield to influence current food systems and play an important role in strengthening agriculture nutrition linkages.
VII. References shared by participants

Disclaimer: the following list is a compilation of references shared by the participants in their contributions. All positions and views expressed therein do not necessarily reflect the views of FAO.

Publications


Websites


• Codex Alimentarius. http://www.codexalimentarius.net


Other resources

