TOPIC NOTE

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↗ http://www.fao.org/fsnforum/activities/discussions/sustainable-farming-systems

Sustainable Farming Systems for Food and Nutrition Security

The 2015 Sustainable Development Goals and the UN Decade of Action on Nutrition call on all countries to end hunger and prevent malnutrition in all its forms by 2030. This is quite a challenge, and it is a challenge with sustainable agriculture and food systems at its very heart. The current situation does not look good however. The latest State of Food Security and Nutrition in the World report estimates that in 2016 the number of chronically undernourished people actually increased to 815 million (up from 777 million in 2015).

Sustainable Development Goal 2 also sets the world targets that agricultural productivity and the incomes of small-scale food producers should double by 2030. At the same time food production systems should be sustainable, reduce their impact on ecosystems and be resilient to environmental change. But here again we are facing major challenges. The latest evidence from advanced global crop models suggests, for example, that global yields of wheat, rice, maize and soybean will decline substantially with the predicted increase in global temperatures in the coming years.

Research has only recently begun to address the links between agriculture, food security and nutrition, and the environment. In Asia, for instance, the Sustainable and Healthy Diets in India project led by London School of Hygiene & Tropical Medicine calculated for the first time greenhouse gas and water footprints of food production in India and estimated the dietary changes required to meet future declining groundwater availability. These are among the first research efforts in South Asia to quantify the links between environmental sustainability and food and nutrition security at a time when, because of rapid urbanisation, transitions in diets and increasing populations, the food system is under increasing pressure.

Another example is the LANSA programme, which is working with local communities in Afghanistan, Bangladesh, Pakistan and to identify farming system interventions that address community nutritional inadequacies, reduce environmental impacts and also increase resilience to environmental stressors. These are important first steps in the generation of novel evidence to help meet current and future agricultural system challenges.

A recent review found that there are a large number of studies on the impacts of agricultural interventions on nutrition in South Asia. But, more research is required to help reduce the impact of agriculture on the environment, and build the resilience of local farming systems to current and future environmental change – this will be critical to ensuring food security and good nutrition for all.

Against this background, the discussion aims to strengthen LANSA research understanding on sustainable farming systems for nutrition security. The discussion also provides opportunity to showcase experiences and on-going research from low and middle-income countries on the links between agriculture, nutrition and the environment.

Questions for the 3-week discussion include:

1. Are you documenting the impact of the farming system on the environment?
2. Are you conducting any research on the impact of agriculture and environment on food and nutrition security?
3. Have you had any experiences of linking research and policy regarding sustainable agricultural systems for nutrition?
4. What interventions do you think are needed to increase the agriculture sector resilience to environmental stressors, especially among smallholder farmers?

Our focus is specifically on low and middle income countries where the impacts of environmental stress on food and nutrition security are projected to be the most severe. We hope that you find this topic and these questions stimulating, and invite you to share your experiences. We look forward to hearing from you.

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