The role of forests, trees and wild biodiversity for nutrition-sensitive food systems and landscapes

Bronwen Powell¹, Amy Ickowitz¹, Stepha McMullin², Ramni Jamnadass², Christine Padoch¹, Miguel Pinedo-Vasquez², Terry Sunderland¹

1. Center for International Forestry Research (CIFOR), Jalan CIFOR, Situ Gede, Bogor 16115, Indonesia
2. The World Agroforestry Center (ICRAF), Nairobi, Kenya

Contact: Bronwen Powell: b.powell@cgiar.org (or bronwen.powell@hotmail.ca)

Summary

Many contend that in order to overcome the world’s nutrition problems, nutrition must become a cross-cutting issue, with concrete commitment and attention from a wide range of disciplines. From this assertion has grown the promotion of nutrition-sensitive approaches to economic growth, development, agriculture and food systems (nutrition-specific interventions target malnutrition directly, whereas nutrition-sensitive interventions target the causes of malnutrition by integrating nutrition into policies and programs in diverse sectors). There have been repeated calls for the international community to prioritize identification ways to leverage agriculture (and agricultural landscapes) to enhance nutrition (and health). Land use change is an often overlooked driver of change in diets, nutrition and food security, especially for rural communities. The synergies between food systems approaches to food security and nutrition and landscape approaches to integrated biodiversity and forest conservation should be explored and built on.

Forests and trees support food security and nutrition in a number of ways. Forests and wild biodiversity provide nutritionally important foods (including fruits, vegetables, bush meat, fish and insects), that contribute to the diversity and nutritional quality of diets of people living in heterogeneous landscapes. Forests and trees provide fuelwood, an essential and often overlooked component of the food systems in rural areas across the globe. Forests and tree products make invaluable contributions to the income of people living in and around them, often providing the only means of accessing the cash economy, thus enabling access to nutritious foods through purchasing. Forests also sustain resilience: forest products are often consumed more frequently in times of food scarcity and can provide livelihood safety nets. When they reach markets, forest and tree products can contribute to the nutrition-sensitivity of global food systems (approximately 53% of the fruit available for consumption globally is produced by trees), especially when market chains are supported and developed in a nutrition-sensitive manner. Biodiversity, forests and trees outside forests also provide an array of ecosystem services essential for the sustainability and nutrition-sensitivity of agricultural systems (e.g. pollination, water provisioning, genetic resources). A better understanding of the importance of these relationships, and the spatial scales at which they function, is needed to ensure they are not overlooked in policy and practice.

The importance of forests and trees in agricultural systems and the nutritional importance of forest and tree foods highlight their role in both the sustainability and nutrition-sensitivity of food systems. To achieve goals for reductions in global malnutrition it will be essential to ensure that nutrition becomes a cross-cutting issue: a priority not only in the field of health, development, education and agriculture, but for those also working in forestry and conservation.
Recommendations

- Make landscapes and food systems more nutrition-sensitive and enhance the nutritional resilience of local communities and the growing global population
- Ensure nutrition and food security become a greater priority for those working in forestry and conservation (Promote research into the relationships between forests, trees, food security and nutrition. Ensure that those working on forest governance and land use policy examine their work through a nutrition-sensitive lens)
- Forestry and conservation practitioners have an important role in the health and food security of rural communities: they often work with remote areas, with communities who may not have access to other sources of information on health, nutrition and food security. (Develop curricula on food security and nutrition for forestry and conservation students)
- Dietary choices, especially fruit and vegetable consumption are in determined in part by structural and environmental factors. In rural areas of developing countries, proximity to tree-based agricultural systems (including home gardens) and forests has been linked to increased consumption of fruits and vegetables and nutritious foods. The impact of land use, conservation and agriculture and food security planning and policy on the structural / environmental constraints on dietary choices and the food environment must be considered. Reduced access to forest and tree foods may alter dietary decision making in unexpected ways, even if equivalent food items are available, accessible and affordable in local markets
- Seek a better understanding of how income from forest resources and activities is used so as to inform policies and interventions to help ensure that increases in income contribute to improved nutrition
- Fuelwood access must be included in food security and agricultural planning and policy – poor access to cooking fuel can mean that household resources (either time or money) are spent to procure fuel rather than healthy and nutritious food
- Enhance the understanding of the importance of forests, trees and biodiversity for ecosystem services and sustainability of food and agricultural systems. Disseminate this knowledge widely so that agricultural programmes and policy are broadened from the traditional focus on yield to include greater attention to sustainability. Also, the proximity requirements to maximize the contributions of forests to agricultural production and sustainability are not well understood and deserve further research
- Because of the nutritional importance of fruit and the fact that more than 50% of the fruit in the world come from trees, tree-based cropping systems need to be given greater attention to ensure the nutrition-sensitivity of the global food system. Post-harvesting processing and market chains for nutritionally important food such as vegetables, fruits and other tree products need to be given equal or more attention as less nutrient-dense crops such as grains. We need to seek ways to reduce the cost of fruits and vegetables relative to other foods to provide better purchasing incentives
- Promote integrated landscape level approaches to better achieve conservation, livelihoods, food security and nutrition goals across the landscape, build on synergies between goals and incorporated nutrition into land use policy and decision making