



Nutrition-sensitive agroecological interventions to improve the resilience of dryland farming communities in the Sahel



Key Messages

- An estimated 12 million small-scale farmers in the drylands of the Sahel are chronically vulnerable to food and nutrition insecurity.
- Embedding nutrition into agroecological interventions improves resilience building.
- Use three pathways for improving nutrition outcomes through agriculture: food production, income generation, and women's empowerment.

Malnutrition in the Sahel is a critical problem

In 2019 over 30.1 million people in the Sahel were food insecure. Of these, at least 12 million were locked in a debt and hunger trap requiring emergency food assistance. Levels of stunting in the Sahel are alarmingly high, with Mali and Burkina Faso exceeding the World Health Organization's "warning threshold" of 20%.

Malnutrition is strongly linked to food security and agriculture and in particular, a lack of food diversity in the diet and inadequate nutrition for children and pregnant women. Most women are engaged in farm work and have domestic duties and childcare responsibilities that limit their ability to earn adequate income. Moreover, women often rely on their more nutritious cash crops (like peanuts, sesame or cowpeas) for income, rather than for home consumption.

Integrating nutrition into agricultural (and agroecological) programs

Agroecology can be a significant vehicle to address the crisis of malnutrition in the Sahel region since 60 to 70% of the population relies on agriculture for subsistence. Farm families should be able to derive most of a nutrition rich diet directly from their crops. What crops they farm and how they farm, harvest, and preserve their crops is critical. Current rural development programs often fail to adequately harness agriculture for improved nutrition due to lack of knowledge, awareness of the causes of different types of malnutrition, and because of a lack of resources.



Case Study: Improving Nutrition in the Sahel Through Agroecology

The Agroecology Plus Six (AE+6) program aims to strengthen the resilience of dryland farming systems in regions of Burkina Faso, Mali, and Senegal, by enabling farm families to counter land degradation and adapt to the effects of climate change. Ensuring dietary diversity and proper nutrition for all family members is critical for resilience.

Households in the Sahel suffer from hunger and malnutrition. They are often forced to adopt harmful coping mechanisms, including taking exploitative loans, selling their animals, eating their seeds stocks, and reducing the number of daily meals. They end up in a downward spiral of declining productivity, further exacerbating food insecurity and malnutrition.

The AE+6 program began with nutrition education, which helped give communities a sense of ownership in fighting malnutrition while learning the different nutritional values of local foods. Farmers were encouraged to set aside a portion of their crops for household consumption so that they could benefit from the nutrients of a more diverse diet. Empowering women through saving and credit groups or accessing land were vital strategies. Women often used their income to invest back into improving the nutrition and dietary diversity of their family. The program trained women as volunteer nutrition promoters, with culinary contests, radio games, and visits seen as productive ways to spread awareness.

These steps all contributed to improving the knowledge of how to improve nutrition, creating an enabling environment to encourage others to adopt more diverse diets.

Integrating Nutrition into Agriculture

- By growing cash crops for income, farm families can buy local foods and diversify their diet to improve their nutritional status.
- Farmers should also be encouraged to grow more of their nutritious food.
- Increasing women's involvement in agriculture and their understanding of diverse diets is likely to improve nutritional outcomes.



Photo: Sahel Eco

Key levers already exist for ensuring nutrition-sensitive agroecological interventions

Integrating nutrition into the agricultural activities of NGOs involved in promoting agroecology

Give NGOs, women's and farm organization staff training on malnutrition, including how to obtain information on the nutritional status of a given population and the use of nutrition-focused tools such as the Household Dietary Diversity score, to track changes and tailor initiatives to local needs.

Improving the nutritional status of the most vulnerable groups in rural communities

Target the most vulnerable households, especially women and children within these households. Ensure that awareness is raised about the causes of malnutrition, so the whole community is involved in tackling it. Promote a more diverse diet through the consumption of self-produced crops, especially nutritionally rich ones such as legumes.

Integrating nutrition into farming systems and ensuring its long-term sustainability

Train and support women to diversify their production using agroecological principles, through individual or collective dry season gardens. Disseminate lessons learned and knowledge widely through a variety of media, such as radio and documentary videos.

Include experiences of nutrition-sensitive agriculture into the programs of national and regional networks so they can learn from best practices and experiences in the field. Partner with and build the capacity of local institutions to promote improved nutrition through farming, at the rural municipality and village levels.

Recommendations

- National governments** need to increase incentives to improve the availability and access to diversified, nutritious, and healthy food produced by sustainable farming systems. They must also monitor access and consumption, especially for vulnerable groups, while ensuring provisions are in place to protect and promote the empowerment of women and poor households. It is also crucial that they support inter-sectoral strategies for nutrition.
- Local governments** should assess the local context to design solutions that appropriately address the various causes of malnutrition. The training of technical staff and extension officers is key to supporting nutrition-sensitive agriculture. Lessons learned must be shared with all local stakeholders in specific areas.
- Farmer organizations** should organize learning and immersion visits to nutrition-sensitive projects and initiatives.
- The non-governmental sector** should review and apply the FAO's 10 Key Recommendations for Improving Nutrition through Agriculture and Food Systems.
- Strategic partners** need to increase financial support to nutrition-sensitive agricultural projects that are not only focused on production and sustainability but also nutrition (diversity of diets), equity, women's empowerment, and resilience.

A practical experience in applying these recommendations is fully described in the associated [Case Study: Integrating nutrition into agroecology for strengthened resilience of rural communities in the Sahel](#). This case study is accessible on the [Groundswell International website](#) ([click here](#)).

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