

Promoting agroecological food systems to improve nutritional intake and consumer health



Micro-gardening on tables in the Patte d'Oie district of Dakar, Senegal © N. Sirdey, CIRAD

Agroecology can help improve the nutritional intake and health of both rural and urban consumers, through a variety of mechanisms that go beyond the simple consumption of agroecological products. Agroecology is a holistic approach comprising the production of diverse and healthy local foods, connectivity to markets, management of natural resources such as water and timber, transfer of resources and knowledge between farmers, and empowering vulnerable local groups. Agroecology must therefore be supported at every level and in a territory-specific manner, to allow nutritious, inclusive and sustainable food systems to grow and flourish.

Malnutrition, in all its forms, is a major issue in the Global South, both in rural and urban areas. The cause is often a diet that is too undiversified and/or too rich in fat, salt, and sugar. Food systems need be redesigned fundamentally, both at social and institutional levels, to provide more diverse diets and healthier food. Agroecology can be a powerful mechanism to transform food systems to provide improved nutrition, inclusively and sustainably.

Projects involved

- **NSAE – Nutrition Sensitive Agro Ecology:** Funded by the European Union as part of the Nutrition Research Facility (NRF) initiative and managed by CIRAD and its Laotian partners, the NSAE project combines scientific and local knowledge to explore ways of improving women and children's diets through agroecological practices in Laos.
- **NRF Agroecology and Nutrition in Senegal Study:** This study, part of the NRF initiative by Cornell University, LATES-IFAN/UCAD and CIRAD, focuses on the mechanisms by which agroecology-based food systems can improve the diet of women in low-income neighbourhoods in the Dakar area, in Senegal.
- **RELAX – Promoting the resilience of rural African households:** Food systems at a crossroads: The Relax project explores ways to improve the food resilience of rural households in Burkina Faso through areas such as nutrition, economics, agronomy, sociology and political science.
- **FAMA – Food and Microbiota in Africa:** Backed by the French Ministry for Europe and Foreign Affairs, the project is managed by CIRAD and its partners in South Africa and Senegal. In response to the triple burden of malnutrition (undernutrition, micronutrient deficiencies, excess weight, and obesity) and impairment of intestinal microbiota, FAMA focuses on alternative food systems inspired by traditional African foods. It aims to understand the role of these foods on intestinal microbiota and to promote production using agroecological practices, as well as sustainable processing, distribution and consumption.



Lessons learned from the projects

- Agroecology can improve the diets of rural populations by improving agricultural biodiversity and thus the diversity of home-consumed foods. According to NSAE, the main barriers to fruit and vegetable consumption in the Xiengkhouang Province in northern Laos are slow growth of fruit trees at high altitudes and maintaining vegetable gardens during the dry season. Since fruit is rarely purchased, its consumption depends first and foremost on local production and self-supply; hence the importance of promoting agroecological production.
- Agroecology, often seen as solely agricultural, also includes aspects such as market connectivity and natural resource management. The RELAX project in Burkina Faso has shown that self-supply, market purchases, and wild harvesting are complementary, providing access to different foods in different seasons.
- Agroecological market initiatives in low-income neighbourhoods in the Dakar area in Senegal, show that the purchase of agroecological products is primarily driven by health concerns and contributes to the dietary diversity of local families. Agroecological produce markets are also ideal places for consumers and producers/vendors to meet and to raise awareness of health, food, and environmental issues affecting them.
- In South Africa, agroecological food systems promote traditional African foods such as fermented sorghum products, which are highly nutritious and support human microbiota. They are an alternative to the food systems responsible for obesity and diet-related non-communicable diseases.

Recommendations to policy makers

- Promote agroecology in rural areas to support the production and consumption of healthy, diverse food, raise incomes and resilience to shocks and crises, reduce the impact of agriculture on the environment and biodiversity, and encourage equity in food systems.
- Support the development of local agroecological sectors and markets to provide a regular, diversified, and accessible supply of agroecological produce, particularly traditional African products, to the poorest urban populations.
- Integrate agroecology into urban food policies to create dedicated production areas and extend food markets in deprived neighbourhoods.
- Increase the supply of agroecological produce in public procurement, particularly for mass catering (schools, universities, company restaurants, hospitals, etc.).

Find out more



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