

Food and Agriculture Organization of the United Nations



Innovation and family farming

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FAMILY FARMING

AT THE HEART OF SUSTAINABLE AGRIFOOD SYSTEMS

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Family farmers are adapting, developing and adopting sustainable, affordable, and contextspecific innovations and technologies to cope with complex challenges. In family farming, the family and the farm continuously evolve thanks to intergenerational renewal, with young people taking over farm management. In this way, family farmers are making a significant contribution to finding context-specific and systemic solutions for more efficient, inclusive, resilient, and sustainable agrifood systems and in support of the 2030 Agenda for Sustainable Development.

Family farmers innovate by developing assemblages of old and new food system practices and organizational processes, using both traditional and diverse forms of knowledge and connecting these with newly available information and technologies. These innovations have a holistic approach and can take many forms: technological, social, policy, financial, marketing, legislative and institutional. They can cover aall aspects of agrifood systems and help family farmers to fight hunger and poverty, revitalize rural areas and protect the environment.

Innovation is not always within the reach of family farmers.

Some factors can limit or prevent family farmers from developing innovation or benefiting from it, such as a lack of national scientific capacity and infrastructure; incoherent policies; restrictive laws on intellectual property, trade and taxes; and unequal access to resources, research and knowledge. These factors, among others, can create or widen a gap between social groups, countries and regions. The United Nations Decade of Family Farming 2019–2028 (UNDFF) promotes family farming-led innovation by:

- Supporting local and participatory research for developing public policies on family farming and providing training and capacity development for family farmers' organizations to foster their capacity on innovative practices.
- Favouring access to, and use of, inclusive, affordable and contextspecific innovations and technologies aimed at achieving sustainable agrifood systems by small family farmers.

- Promoting innovations for women and youth in family farming that can help reduce inequalities and foster inclusion.
- Fostering innovative economic opportunities and market solutions that promote the services and goods of multifunctional family farming, embedded and built on resources provided by the local context.

Putting family farmer-led innovation at the centre of the transition to sustainable and inclusive agrifood systems: successful experiences

In Costa Rica, Indonesia, Nepal, the Philippines and Tunisia, **national action plans and policies** have been built through extensive partnerships and agreements, and with the development of district and local plans, stimulating the participation of, and public funding from, provinces and municipalities.

In the Dominican Republic, innovations in the legal framework allowed the development of a coordinated, **intersectoral strategy** to improve family farmers' connections and inclusion in new markets related to agritourism and recreation.¹

In the semiarid region of Brazil, a network of rural cooperatives, unions, farmers' organizations and non-governmental organizations have developed an **innovative resilience strategy** based on promoting the accumulation of stocks of water, food, seeds and animals. The recovery, development and dissemination of innovative social technologies are instrumental to establish a new reality for rural families. In Egypt, low-income family farmers are receiving technical support on **roof and soil-less agriculture**, which can increase food in areas with limited land, and they are accessing demo units to advance modern agricultural techniques and farms' environmental management.

In Europe, countries are finding in digital solutions and connectivity a way to bring young people back to agriculture, as well as to improve economic growth and well-being within rural communities. Similarly, in Latin America, family farmers and their organizations are using mobile phones and apps to expand extension services and market access.

In Indonesia, **demo plots** are promoting sustainable farming using agroecology approaches and the manufacture of organic biofertilizers. They are an effective farmer-to-farmer learning strategy to better communicate and replicate innovations.

In Kyrgyzstan, state and nonstate actors have been working on initiatives for the development



of **agroforestry and forest management**, adopting new varieties of rust-resistant wheat and zero seeding (no-till) technology, which can increase soil fertility and productivity, diversify income and recover degraded areas.

In Mozambique, mechanization kits, processing facilities, improved infrastructure and production technologies are contributing to the **reduction of women farmers' workload**. Other initiatives are promoting the use of environmentally sustainable technologies such as integrated pest management, improved and certified seeds, and droughttolerant and pest-resistant varieties, in order to lower crop risks, reduce costs, and improve ecosystem protection.

In Brazil, a new, **unified platform** is facilitating public-purchase programmes and increasing marketing opportunities for family farmers.

In Peru, farmers' cooperatives are producing **organic fertilizers**

to reinforce climate adaptation, improve soil health, and reduce the dependence on external inputs.

In Türkiye, farmers are using irrigation and energy-saving systems and benefiting from climate-resilient interventions in agriculture and forestry, such as afforestation and rehabilitation of degraded areas.

The Philippines is promoting advanced technologies for organic agriculture, training and financial incentives for young agripreneurs, and has created a digital farmers training programme to increase their agricultural productivity and income.

In the West Bank, cost-efficient desalination, irrigation, and trellising systems have been made available, improving water availability and food security in support of rural and urban communities. The use of drought-tolerant seeds and solar energy systems are improving farmers' adaptation to climate change and access to energy.

Learn more:

UNDFF Global Action Plan

Second report on the implementation of the UNDFF in 2021-2022

FAO Science and Innovation Strategy

FAO Action Plan 2022–2025 for the implementation of the FAO Strategy on Climate Change

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