



Food and Agriculture
Organization of the
United Nations

 cirad
AGRICULTURAL RESEARCH
FOR DEVELOPMENT

Highlights of the **FAO-Cirad partnership**



Agroecology, animal health, family
farming and climate change are at the
heart of the partnership between Cirad
and FAO

A successful partnership built upon principles and values, a common vision and shared goals

The FAO-Cirad partnership is characterized by a natural affinity of mutual interest and complementary strengths. These characteristics have enabled the successful history of the partnership and pave the way forward for the coming years. Drawing on comparative advantages of Cirad's scientific knowledge and FAO's mission and global reach, the two organizations together are able to focus and intensify their collaborations to make a greater global impact in achieving food and security for all.

In 2014, FAO and Cirad signed a Memorandum of Understanding to provide a framework for a coordinated approach between the French agri-food science and technology community and FAO to build capacities and local research systems in the South through mobilization of French research in FAO's programmes via exchanges of experts and development of on-the-ground operational collaborations.



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France has long been an active and generous resource partner, working closely with FAO to support food security and agriculture development.



FAMILY FARMING FOSTERS DIVERSIFIED AGRICULTURAL SYSTEMS AND PRESERVES TRADITIONAL FOOD PRODUCTS, CONTRIBUTING BOTH TO A BALANCED DIET AND THE SAFEGUARDING OF THE WORLD'S AGRO-BIODIVERSITY

In 2014, the International Year of Family Farming (IYFF) facilitated focus on the economic and social role of Family Farming, as well its potential for meeting global challenges in food security. Family Farming nourishes and creates livelihoods to most of world's population, fosters diversified agricultural systems and their potential to improve productivity, income, rural employment, social cohesion and environmentally-friendly and sustainable uses of natural resources. Indeed, Family Farming preserves traditional food products, contributing both to a balanced diet and the safeguarding of the world's agro-biodiversity.

Understanding and introducing Family Farming values at a global level has enabled the role of agriculture into development trajectories in the South and in particular to identifying the most inclusive development strategies and economical models.

During IYFF, FAO and Cirad, among others, contributed to a clear-cut statistical definition of family farming at the global level and to a detailed picture of its various forms at the national level. Additionally IYFF provided information necessary for improved policy-making and facilitated impact of their implementation. Cirad has actively participated to dialogue meetings organized by FAO in Latin America, Africa, Asia and in Rome. It contributes still today to FAO's Family Farming Knowledge Platform (FFKP) which is a comprehensive and up-to-date digital database on family farming with a high-level collection of national laws, regulations, public policies, relevant data, best practices, compelling research, publications and articles related to family farming through a single access point. Cirad also contributes to the conceptual and methodological development and implementation of World Agriculture Watch (WAW), a global observatory.



GLOBALLY PROMOTING FAMILY FARMING: THE LATIN AMERICA REGION

Latin America family farming concerns more than 14 million farms. In the last decade enabling policy frameworks were promoted at national and regional levels which helped sustain family farmers' livelihoods and contributed to achieve food security. However, despite this policy advancement, family farmers continue to face barriers in accessing natural and productive resources. In recognition of this challenge, in 2014 Cirad and FAO, with other key partners, gathered relevant authorities, politicians, scientists, experts and representatives of organizations and social movements in Latin America for a meeting on *Family Farming and Family Agriculture in Latin America and the Caribbean: Current Situation and Challenges for the Medium- and Long-Term*. This meeting, conducted within the framework of the International Year of Family Farming, enabled stakeholders to take an inventory on regional family farming public policies and to define challenges and prospects for the next 15 years. The meeting also saw the launch of [Public Policies and Family Farming in Latin America and the Caribbean: Balance, Challenges and Perspectives](#) which compiles case studies on public policy for family farming implemented in 11 countries of the region.

CHARACTERIZING SMALL-SCALE FAMILY FARMING IN THE NEAR EAST AND NORTH AFRICA REGION

Family farming, based on local production and consumption circuits, has a major part to play in fighting hunger. However, this value chain system requires relevant and indigenous programmes to support and improve the functionality of family farming. Understanding that a local approach to programme development is required, in 2015-16, FAO and Cirad undertook a state-of-the-art review to analyze small-scale family farming in the Near East and North Africa region (NENA). This study resulted in a regional report and six supporting national reports for Egypt, Lebanon, Mauritania, Morocco, Sudan and Tunisia. These reports are based on data, documents and interviews with key stakeholders and which identify and analyze successful experiences to understand current and past policy support to small-scale family farming in the region.

The regional report provides key recommendations for developing a new policy framework to enable FAO to develop a five-year programme to support and improve the functioning of small-scale family farming, reduce its vulnerability and consolidate its economic, social and environmental functions in the NENA. Read the full report [here](#).

WORLD AGRICULTURE WATCH DESCRIBING AND UNDERSTANDING AGRICULTURE TRANSFORMATIONS

The World Agriculture Watch (WAW) is a technical observatory that aims at improving the understanding of different types of agriculture, their dynamics and transformations, and their impacts in terms of sustainable development to inform policy makers and facilitate policy dialogue. In collaboration with Cirad, the WAW secretariat was established in FAO as an International Initiative gathering a multitude of partners. WAW acts as an honest broker and responds to country requests, seeking to strengthen the capacities to monitor and assess agricultural transformations and foster the adoption of resulting policies that reduce rural poverty.

www.worldagricultureswatch.org



LOCAL, REGIONAL AND GLOBAL EFFORTS ON DISEASE SURVEILLANCE AND CONTROL OF TRANSBoundary, ZOONOSIS AND VECTOR BORNE DISEASES, INCLUDING THROUGH PLATFORMS IN PARTNERSHIPS (dP)



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RESPONDING TO THE GLOBAL CHALLENGE OF AMR THREATS: TOWARD A ONE HEALTH APPROACH

Antimicrobial Resistance (AMR) is a growing and urgent health threat across the globe. Addressing AMR requires a holistic and multisectoral (One Health) approach as antimicrobials used to treat various infectious diseases in animals may be similar to those used in humans.

The issue of AMR in developing countries is complex. Livestock may be the sources or the victims of AMR, or both. While many countries have had considerable success in reducing antimicrobial use in livestock, developing countries face a dual problem of lack of access to antimicrobials among some smallholders and over-use in the intensive sector. Comprehensive actions are needed to step up solutions in developing nations.

In 2016, Cirad led and FAO contributed to the National sharing information workshop on Antibiotic Use, Management and Potential Risk of Antibiotic Resistance at the National Institute of Veterinary Research in Hanoi, Vietnam. This meeting called together key stakeholders across the region to identify gaps, needs, and challenges on efficient One Health initiatives to address AMR.

The report of that meeting can be found [here](#).

ACCESS TO SEQUENCING SERVICES FOR ANIMAL HEALTH LABORATORIES IN AFRICA

Gene sequencing has become an indispensable method for pathogen identification and characterization and for detection of specific molecular markers. African laboratories often depend on international reference laboratories for such sequencing services, leading to delays and loss of information and even lack of ownership of significant scientific data. For greater autonomy on animal pathogen characterization, in 2013 FAO and Cirad participated in a *capacity building* programme with ten African pilot countries to strengthen laboratories in principles of molecular epidemiology and use of sequencing information for broadened epidemiological analysis. This programme enhanced the laboratories' ability to test for and characterize pathogens such as avian flu, African swine fever, rift valley fever, peste des petits ruminants and foot-and-mouth disease, allowing for faster responses in addressing such threats.

IMPACT OF THE EBOLA VIRUS DISEASE OUTBREAK ON MARKET CHAINS AND TRADE OF AGRICULTURE PRODUCTS IN WEST AFRICA

The 2014 Ebola Virus Disease (EVD) outbreak in Guinea, Liberia and Sierra Leone resulted in a tragic human death toll as well as severely affecting the local agriculture market chains. This outbreak created tremendous social and economic impact on affected communities, particularly those that depend on agriculture as their primary livelihood.

To understand the impacts of EVD on food security and trade, FAO and Cirad undertook a study on seven market chains (rice, potatoes, cassava, palm oil, domestic animal products, bushmeat and cocoa) in Guinea, Sierra Leone and Liberia. The study resulted in specific recommendations in each of the sectors to increase resilience and reduce vulnerabilities to in the context of systematic crises.

Read the full report [here](#).



CIRAD AND FAO RECOGNIZE THAT AGROECOLOGY IS KEY TO TACKLING HUNGER AND MALNUTRITION WHILE SIMULTANEOUSLY MINIMIZING THE IMPACT AGRI-PRODUCTION HAS ON ENVIRONMENT

FAO SYMPOSIUM: INTERNATIONAL EXPERTS TAKE STOCK OF AGROECOLOGY

The capacity of the global food system to support a rising world population while preserving healthy ecosystems has been the subject of much debate. Agroecology is an approach to agriculture and food chain that aims at transitioning towards more sustainable food systems.

To gain perspectives on agroecology approaches, in 2014, as a joint initiative with the French Ministry of Agriculture and in close coordination and collaboration with Cirad, FAO hosted a two-day *International Symposium on Agroecology for Food Security and Nutrition*. The Symposium convened experts and advocates to debate Agroecology as an emerging set of practices that seek to apply ecological concepts and principles to the design and management of sustainable food systems.

With more than 400 people from 61 different countries participating at the Symposium, the full spectrum of agroecology was reviewed. The Symposium brought together scientific knowledge and open dialogue on a wide range of issues including current food systems, smallholder challenges, dependence on fossil fuels and their negative impacts, scaling up ecosystems above- and below-ground to enhance functional biodiversity, and looking at enabling conditions of ex-situ conservation, ownership of land and autonomy to manage seeds.

The Symposium identified key outcomes and next steps leading the path to sustainable production. Click [here](#) to access the Final Report.

MAINSTREAMING AGROECOLOGY

Following the 2014 International Symposium on Agroecology, Cirad contributed to the success of the two regional meetings on agroecology organized by FAO in sub-Saharan Africa and Southeast Asia and the Pacific.

Together FAO and Cirad have broken ground across the globe to share information on agroecological practices, from latest technical practices to resource management principles as a means to sustainably support production goals while protecting the environment. The consultative process at regional level fostered participatory exchanges of experiences and knowledge across territories, countries and regions, engaging civil society organizations, farmers and farmers' organizations, governments, academia and researchers. The regional meetings illustrated that many agricultural and food systems are based on agroecology principles and many new alternative forms of agriculture are emerging all over the world. They further reinforced that each region faces its own specific vulnerabilities, challenges and priorities and require regionally-focused solutions and specific public policies.

CLIMATE SMART AGRICULTURE AIMS TO SUSTAINABLY INCREASE AGRICULTURE PRODUCTIVITY AND INCOMES, ADAPT AND BUILD RESILIENCE TO CLIMATE CHANGE AND REDUCE OR REMOVE GREENHOUSE GAS EMISSIONS



CLIMATE SMART AGRICULTURE – GLOBAL SCIENCE CONFERENCE

With temperatures rising across the globe, early action is necessary to identify, pilot and scale-up best practices, strengthen institutional capacities and build experiences for stakeholders to make informed choices to make the transformation to climate-smart agriculture.

With support from FAO and Cirad, the third global science conference on Climate Smart Agriculture: “*Building Tomorrow’s Research Agenda and Bridging the Science-Policy Gap*” took place in 2015, bringing together more than 500 top scientists, policymakers, developers and other stakeholders from all over the world to discuss how CSA can provide potential solutions to the growing problem of climate change and food security. The Conference provided stakeholders with an opportunity to update the science basis, showcase CSA scenarios for agriculture and food systems, identify priorities for early action, integrate key research and define a roadmap to strengthen the global CSA community.

GLOBAL ALLIANCE FOR CLIMATE SMART AGRICULTURE – KNOWLEDGE ACTION GROUP

The Global Alliance for Climate Smart Agriculture’s (GACSA) Knowledge Action Group (KAG) provides online knowledge resources to articulate a vision to increase and promote knowledge, research, and development into technologies, practices, and policy approaches for Climate Smart Agriculture. Since June 2016, the KAG is co-convened by Cirad and FAO.

KAG conducts online consultancies and workshops in five CSA priority areas:

- Technical interventions and practices
- Evidence base
- Support, services and extension
- Inclusive knowledge systems
- Integrated planning and monitoring

The KAG has further developed a compendium that provides examples of more than 20 different approaches of how agricultural extension can support climate-smart agriculture, with contributions from 17 institutions and over 30 contributors worldwide.

For more information on KAG click [here](#).



Moving the Partnership Forward:

Next Steps

Cirad and FAO recognize the importance of their partnership which has greatly enhanced global approaches to food security through contributions to agroecology, animal health, International Year of Family Farming, and agriculture within climate change adaptation, among others.

The partners now look forward to building upon this valuable and esteemed relationship for even greater impact at national, regional and global levels. The next phase of the partnership will take advantage of the wide network of Platforms in Partnership (dP), promoted worldwide by Cirad and their partners and based on a huge community of academia and development stakeholders, and will focus on five strategic issues to contribute to the Sustainable Development Goals:

- Sustainable and innovative agriculture systems, including agroecology, sustainable natural resources management (e.g. water, soil)
- Sustainable and safe food systems, including nutrition, waste and loss reduction, food safety, market chain governance
- Sanitary risks, including animal and plant health, One Health, Antimicrobial Resistance reduction
- Sustainable territorial development (through territorial and participatory approaches)
- Biodiversity and genetic resources and,
- Crosscutting issues such as climate change, innovations (in all forms) and migrations.

Working together to achieve the Sustainable Development Goals



About FAO

The Food and Agriculture Organization of the United Nations leads international efforts to defeat hunger through five Strategic Objectives: eliminate hunger, food insecurity and malnutrition; make agriculture, forestry and fisheries more productive and sustainable; reduce rural poverty; enable inclusive and efficient agriculture and food systems; and increase resilience of livelihoods to threats and crises. Serving both developed and developing countries, FAO acts as a neutral forum where all nations meet as equals to negotiate agreements and debate policy. FAO is also a source of knowledge and information. It helps developing countries and countries in transition modernize and improve agriculture, forestry and fisheries practices and ensure good nutrition for all. Since its founding in 1945, it has focused special attention on developing rural areas, home to 70 percent of the world's poor and hungry people.

Partnerships are at the heart of FAO's mission. FAO recognizes that effective collaborations make use of each other's comparative advantages fundamental to food insecurity solutions. In particular, partnerships with academia and research centers, as incubators of knowledge, ensure that high-quality data and research is disseminated, contribute to interdisciplinary dialogue to promote sound policy-making, and stimulate capacities development in developing countries.

About CIRAD

Cirad is the French agricultural research and international cooperation organization working for the sustainable development of tropical and Mediterranean regions. Its main objective is to build sustainable farming systems capable of feeding ten billion human beings by 2050 while preserving the environment. Its activities concern the life sciences, social sciences and engineering sciences, applied to agriculture, the environment and territorial management.

Its work focuses on several main topics: food security, climate change, natural resource management, reduction of inequalities and poverty alleviation. On local and global levels, through its long-term partnerships, it contributes to the development of farming systems that benefit all, and particularly smallholders. This its response to the global challenges of food security and climate change, and the 17 UN Sustainable Development Goals and the Paris agreement on climate change.

Cirad has a network of partners on three continents, and of regional offices, from which it works with more than 100 countries. Its long-term partnership strategy centres on platforms in partnership for research and training (dP), associating 200 organizations in southern countries, to which 200 of its researchers are assigned (50% in Africa, 25% in Asia and 25% in South America).

Platforms in partnership for research and training

