

France

Priorities and approaches

Agricultural research for development (ARD) in France relates to the national research policy, which is defined by the Ministry of Higher Education and Research (MESR), along with the Ministry of Agriculture and Food Sovereignty (MASA), and the Ministry of Europe and Foreign Affairs (MEAE). The research strategy in the fields of agriculture and food benefits greatly from discussions held within the framework of the Standing Committee on Agricultural Research (SCAR) of the European Commission (EC) on two major global challenges: The fight against climate change and providing nutritious food from pesticide-free agriculture.

The ARD priorities are in line with the French development cooperation policy: Food security, climate change adaptation and mitigation, sustainable development and poverty reduction. They are also in line with the international commitments and initiatives such as the SDGs, Agenda 2030, Global Partnerships for Agriculture and Food Security and the Paris Agreement 2015. The ARD agenda is further influenced by emerging global issues.

France's general ARD priority areas are addressed in an integrated approach to promote resilient and sustainable development models, with attention to the interactions between human, animal, and environmental health (One Health approach) as well as climate and biodiversity. Overall, they aim to address three interrelated challenges: i) promoting ecologically innovative agriculture that contributes to food security and environmental quality; ii) encouraging the transition to a society that manages its resources and environment sustainably; and iii) improving human health in changing environments. While these three challenges are of particular concern to developing countries in Africa, Asia, South America, the inter-tropics and around the Mediterranean, they are also of global concern. It's why France promotes and supports agroecology as well in its domestic policy as in its agricultural development public actions and initiatives.

The French cooperation for ARD targets all rural development stakeholders—local authorities, non-governmental organisations (NGOs), private sector, One CGIAR, national agricultural research institutes (NARIs) and other research and training organisations — in an approach of mutual aid for sustainable development and in a pooling of knowledge and a dialogue of cultures. It pays particular attention to results and impact, in particular capacity building, training and employment of young people and women.

France and its partners are developing an original approach for ARD. This approach is: (i) systemic and territorial; (ii) participatory, multi-actors and inter-sectoral and inclusive; (iii) co-constructed, with strong interaction between practitioners, scientists and training actors, public policies on long-term; and (iv) articulated along a continuum between research, training, agricultural advice, private entrepreneurs, and public policies.

Agroecology is at the crossroads of these ARD objectives and is therefore promoted as a relevant lever for resilience and sustainable development by

- producing more and better, with less external farming inputs (fossil fuels, pesticides, chemical fertilizers, etc.), in the context of population growth and climate change, health and economic crises, exacerbated by the war in Ukraine;
- moving towards food and nutrition security and sovereignty by limiting imports without impacting on natural resources, forests, water, etc.;
- promote inclusive and sustainable economic growth, considering the role of women and young people, linking rural and urban areas on issues of food, markets and renewable energy; and
- structuring sustainable agricultural sectors, at all levels of the value chain (including the seed system), as well as food systems that provide decent jobs, nutritious food, safe and accessible to all, with a focus on local production and consumption.

The trend in ARD is towards interdisciplinary approaches and growing operational collaborations between the various French research institutions, and their partners, and more flexible funding mechanisms to facilitate timely and focussed responses to emerging themes. This trend is likely to be reinforced by the propositions made by President Macron during the New Africa-France Summit in October 2021 and by France's commitments in different fora under the European Union (EU) - French presidency during the first half of 2022.

Organisation of ARD

ARD in the country is primarily funded by [MESR](#); other contributors are the [French Development Agency \(AFD\)](#), [MEAE](#), [MASA](#), and [Agropolis Fondation](#).

The [Commission for International Agricultural Research \(CRAI\)](#)—which gathers representatives of the main government ministries and research and higher education organisations directly involved in ARD, as well as AFD—is the official representative for France on ARD issues at national and international levels (including CGIAR System Council). To contribute to the SDGs, CRAI's members are driven by six priority research topics: agroecological transitions, biodiversity, climate change, food systems, One Health, and territory-based approaches.

French ARD research is mainly conducted by the three research organisations—[French Agricultural Research Centre for International Development \(CIRAD\)](#), [National Research Institute for Agriculture, Food and Environment \(INRAE\)](#), [Institute of Research for Sustainable Development \(IRD\)](#)—and the Alliance [Agreenium](#) comprising all agronomic and veterinary research and higher education organizations.

In addition to their collaborations with many partners in the Global South, the French research organisations also participate in numerous EU ARD initiatives, including the PRIMA project, the LEAP-Agri programme, DeSIRA programme, and H2020 projects. They are also helping to create global stakeholder platforms such as the Transformative Partnership Platform in Agroecology (TPP), the

Forests, Trees and Agroforestry Partnership (FTAP),¹ the Prezode initiative, etc., in which the research needs of a variety of stakeholders of civil society are being expressed.

CIRAD's mission is to contribute to address tropical and sub-tropical agricultural research issues in the Global South. It is also the scientific and technical reference for most tropical agricultural value chains. CIRAD conducts joint operations with more than 200 partner institutions – with very diverse profiles – covering more than 100 countries, mostly from the South and with a particular attention to the Sahel region. Its main partners are the NARIs and university faculties of agriculture. However, due to its contextualized and systemic approaches, CIRAD works with a wide range of stakeholders such as Ministries, local authorities, private sector (economic stakeholders in the value chains), training institutions and universities, NGOs, foundations, producer federations and other professional organisations. Partnerships are structured around a network of 22 *dispositifs en partenariat* (“dp”), which are platforms in partnership for research and training aiming at addressing specific issues and supporting innovation on the long term. Having 20% of its researchers posted in partners’ institutions in tropical areas (mainly Africa) as well as in CGIAR Centres, CIRAD contributes to development through research in partnership, training, information dissemination, innovation, and appraisals.

INRAE is committed to advancing the fronts of science on agriculture, food systems, and environment, mostly focusing on the French agricultural sector. It has set five main scientific guidelines for 2030, contributing to the United Nations 2030 agenda and to the SDGs:

- address environmental issues and managing associated risks;
- accelerate the agro-ecological and food transitions, taking into account economic and social issues;
- encourage a bio-economy based on a circular use of resources;
- promote a global approach to health; and
- mobilise data science and digital technologies to support transitions.

INRAE develops bi- or multipartite partnerships. Internationally, its collaborations are organised around shared laboratories or infrastructures, insertion in research networks and involvement in international organisations. In the Global South, INRAE participates in the international programmes of its partners such as CIRAD and IRD. However, it has developed its own tools for international collaboration such as the associated international laboratory (LIA) and the international research network (2RI). In order to better contribute to global challenges, INRAE supports a process which incubates, launches, and supports large-scale international research initiatives on a limited number of selected topics.

¹ FTAP was formed out of the CGIAR Global Program on Forests, Trees and Agroforestry (FTA), which ran from 2011 to 2021.

IRD is a research organization working with many partners in the Global South dealing with a diversity of topics from oceanography to anthropology to tropical human diseases. Within the ARD landscape, IRD prioritises research into food security, sustainable management of ecosystems, natural hazards, climate change and coastal waters to assist the economic, social and cultural development of Southern countries.

IRD collaborates with many NARIs, mostly in francophone countries in Africa. Collaboration takes the form of framework agreements but is mainly developed in the form of research projects that can have a positive impact on sustainable, low-emission agriculture for sustainable food systems.

IRD promotes research facilities designed to foster the emergence of sustainable and autonomous research teams or structures in Southern countries, such as the Young IRD Associated Teams (JEAI), the Joint International Laboratories (LMI), and the International Research Groups-South (IRN/GDRI-South).

Agropolis International is a scientific cluster, located in Montpellier, promoting French scientific expertise in the fields of agriculture, food, biodiversity, and environment. It also links with tropical and Mediterranean areas, monitoring partnerships and facilitating joint projects with the major international, European or national organisations involved in Southern countries development. It regularly publishes a collection of “dossiers” on ARD issues, the last one has been edited with CGIAR colleagues on Agroecology. Agropolis Fondation² is supporting its members’ research projects, with an annual funding commitment of €4,5m to promote interdisciplinary research and higher education, international research partnerships in agricultural sciences and sustainable development.

Key ARD programmes and beneficiaries 2021-2022

- *Transforming Food Systems and Agriculture through Research in Partnership with Africa (TSARA)* initiative is a recent example of the growing collaborations between the French research institutions, and their partners which has been co-constructed by CIRAD, INRAE and more than 20 research and innovation institutes/centres and universities from across the African continent. Launched in March 2022, the TSARA initiative brings together the expertise, knowledge, know-how and capacities of all these institutions into a joint research programme on agriculture, food systems and the environment while contributing to the EU’s and African Union’s priorities in terms of research, innovation and training. This initiative, operational from 2022, is financed in the short term by its members' own resources in kind, including INRAE and CIRAD on the French side, and by those of other volunteer partners, particularly for a "light" secretariat. Seed funding for partnership research projects, in addition to that provided for existing instruments or those under preparation, will be gradually introduced from 2023.

² Agropolis Fondation is a private “foundation for scientific cooperation” (“Fondation de coopération scientifique”, FCS, French Status) for agriculture and sustainable development. A “FCS” is an association of higher education and research institutions. It is a non-profit legal entity governed by private law and subject to the rules relating to foundations recognised as being of public utility (“Fondations reconnues d’utilité publique”).

- *The “Great Green Wall facility”*: At the initiative of France, the creation of the Great Green Wall facility was announced at the One Planet Summit on 11 January 2021. The aim is to give new impetus to this emblematic ARD initiative of the African Union. The various partners of the initiative have so far committed to mobilizing nearly 16 billion euros of international funding in the countries concerned by 2025. Ongoing research projects are presently sponsored by IRD, CIRAD and “Agropolis Fondation”. Complementary funds and in particular those for operational projects are being set up.
- *4 for 1000” initiative*: Agriculture is often considered as an activity that emits greenhouse gases, whereas it is one of the main levers to be used to fight against global warming. Supported by 300 States, research institutions, agricultural organizations, NGOs, and banks, this initiative was launched at the COP 24 in Paris in 2015. 4 for 1000 is a global activity, its projects financed in the South by France, Spain and Germany are carried out by research organizations such as IRD and CIRAD and by NGOs. A permanent secretariat is hosted by the CIAT-Bioversity Alliance and located at Agropolis International.
- *Priority Solidarity Fund for Innovative (FSPI) projects* support multiyear grants to 54 countries in Africa, the Arab world, Asia, the Pacific and Caribbean. Priorities include sustainable development and environment, agricultural research and rural development, scientific partnerships, and strengthening of national and regional research potential. In 2020, two hundred FSPI projects in favour of human development (education, agriculture, health, governance) were underway. With a maximum duration of two years, each project has an amount ranging from 100,000 euros to one million euros. Funding comes from Ministry of Europe and Foreign Affairs
- *The Trust Fund of CGIAR* received, for 2022, a total of €5.2 million as a grant from the French Government (MEAE and MESR). In addition, more than 30 French scientists from CRAI members, CIRAD, INRAE, IRD, as well as the Institut Agro, are involved in 12 of the 33 initiatives in the new One CGIAR investment plan (portfolio). Their activities focus on the three main themes of the France-CGIAR action plan: Agroecology, climate change and nutrition and sustainable food systems.
- *The “FairCarbon” Exploratory Research Priority Program and Equipment (PEPR)* studies continental ecosystems to identify levers and trajectories for carbon neutrality (€53m/10yrs). The first call was launched in 2022, teams from developing countries can respond in partnership with French teams.
- To date, INRAE has launched *six international programs targeting emerging countries* (India, Brazil) and developing countries (North Africa) – two have subsequently given rise to major international initiatives: Soils and climate, which contributed to the 4 p1000 *Soils for Climate* and to *Operationalising International Research Cooperation on Soil carbon (ORCASA)*; intestinal microbiota and health; emerging infectious diseases - zoonosis and sapronosis, which led to Prézode; agro-ecological crop protection; adaptation of forests and agro-forests to climate change; agro-ecological transitions under water constraints in Mediterranean territories for sustainable food systems.

Table 1 Main ARD annual budget and beneficiaries, 2020 (million Euro)

<u>Contributors</u>	
Ministry of Higher Education and Research	250,0
Ministry of Europe and Foreign Affairs	20,0
Ministry of Agriculture and Food Sovereignty	16,0
Agence Française de Développement	48,5
Agropolis Fondation	4,5
<u>Recipients*</u>	
CIRAD	200,0
INRAE	4,0
IRD	80,0
CGIAR Grant	5,2
Priority Solidarity Fund for Innovative Projects (FSPI)	14,7
Technical assistance to NARS	5,1
Research and training in ag, food science and engineering for tropical countries	10,0
Other committees and NGOs	20,0

* France concentrates its solidarity effort, in grants and donations, on 19 priority countries (50% of half of the State's grant effort, 2/3 of the grants implemented by AFD): Benin, Burkina Faso, Burundi, Central African Republic, Chad, Comoros, Democratic Republic of Congo, Djibouti, Ethiopia, Gambia, Guinea, Haiti, Liberia, Madagascar, Mali, Mauritania, Niger, Senegal, Togo. Special attention is given to the Great Green Wall countries.

This country profile has been prepared by EIARD with contributions from staff of various French organisations involved in ARD, complemented by information collected from internal and online databases and websites. The findings, interpretations and conclusions expressed in this profile do not necessary reflect the views of the French ministries and their organizations involved in EIARD.