

# 2023 DeSIRA Global Annual Report

## What have we learnt?



**DeSIRA**  
PARTNERSHIPS  
FOR INNOVATION



## DeSIRA initiative: Development Smart Innovation through Research in Agriculture

Since 2019, the **DeSIRA initiative** fosters a productive, green, and inclusive transformation of agriculture and food systems in low and middle-income countries in Africa, Asia and Latin America. To this end, it mobilises academic and participatory research, that values local knowledge, creating evidence to inform future interventions and policymaking. DeSIRA encourages the adoption of climate-smart and agroecological innovations through multi-stakeholder collaboration. It emphasizes inter-institutional South-South and South-North cooperation and capacity development at individual and organizational levels to promote innovation.

DeSIRA also supports the development of policies and strategies for food system transformation, focusing on climate change adaptation, agroecological transition, and socio-economic gains. Improved smallholder farmer resilience, stronger institutional innovation capacities, and private sector engagement to enhance the uptake and scaling of agricultural innovations are part of its expected outcomes.

The **DeSIRA Global Monitoring and Evaluation Framework** aims to steer the DeSIRA initiative as well as to report and communicate on overall achievements, and on new approaches to agricultural R&I. It consists of a logical framework (with 6 outputs, 4 outcomes and the stated impact) and a methodology to identify and inform 28 initiative-level Global DeSIRA Indicators.

### Disclaimer

The contents of this publication do not necessarily reflect the position or opinion of the European Commission.

The **Annual Global Report 2023 (AGR 2023)** builds on the Global Monitoring and Evaluation Framework. It presents the results of 46 DeSIRA projects (39 R&I projects, 7 institutional projects) having at least 2 years of implementation as of 12/2022. Data result from project annual progress reports and interviews with implementing partners. Given the diversity of DeSIRA projects, each project contributes to certain global results at initiative level, but not to all.

As of December 2022, 1564 researchers were involved in the implementation of the activities of these 46 DeSIRA projects, including 1024 from target countries, of which at least 190 are women. Many organizations played a key role in implementation, including 221 research institutes, 113 NGOs, 161 Farmers' Organisations (FOs), 72 private sector entities, 136 other non research organisations (e.g. ministries) and 56 networks.

**80 projects** including Research and Innovation (R&I) projects and institutional projects strengthening the capacities of regional, continental and international organisations engaged in agricultural R&I.

**Funding** EU funding of € 340 million and € 60 million from EU Member States.

**OUTPUT 1**

**“The mechanisms for inter-institutional cooperation and the joint design of climate-smart and agroecological innovations are developed”**

A majority of projects have developed or strengthened multi-stakeholder innovation mechanisms, which facilitate interaction between actors and the joint design of climate-smart and agroecological innovations. They demonstrate the capacity of research bodies to work and interact with a diversity of actors at different levels. They also create the conditions for the dissemination or scaling of innovations contributing to the success of DeSIRA projects.

- ▶ **234 multi-stakeholder innovation mechanisms strengthened or developed at international, national, and local/subnational levels.**

*As of December 2022, SAFEVEG “SAFE locally-produced VEGetables for West Africa’s consumers” (managed by the Netherland’s Ministry of Foreign Affairs, and implemented by the World Vegetable Center in Benin, Burkina Faso and Mali) had created 100 Vegetable Business Networks: local clusters of value chain actors and support services, bringing together business champions selected by the project, producers, market players, extension agents and consumers. These innovation mechanisms aim at developing, piloting and scaling new managerial tools and technologies with focus on production, storage and processing of vegetables.*

**OUTPUT 2**

**“Innovations linked to agri-food systems are developed and made available at farm and institutional levels”**

The support to innovation, including co-design and deployment, is a key feature of DeSIRA. The diversity of farm level innovations is large: products, technologies, agricultural practices, farming systems, services, decision-making tools, etc. The climate-relevant approach is explicit in most innovation processes. Many projects promote agroecological innovations, although their commitment to the agroecological concept and principles may vary. Innovations for use beyond farm level mainly aim at strengthening partner organisations, supporting private sector actors, especially micro, small and medium (MSM) enterprises, and promoting inter-institutional arrangements for natural resource management.

- ▶ **955 climate-smart or agroecological innovations under development for use at farm level;**
- ▶ **190 innovations under development for use beyond farm level.**

**OUTPUT 3**

**“Farmers are reached by research and innovation initiatives and individual capacities are developed beyond farm level, including at institutional level”**

DeSIRA is making solid progress in supporting small-holder farmers and facilitating access to technical and scientific knowledge. One R&I project with a large development dimension has reached nearly 170,000 farmers. However, most R&I projects reached fewer than 500 farmers, given that their primary objective is to produce knowledge, co-design innovations, and support other actors to scale these innovations. Implementing partners reflect positively on the increased capacities of researchers in partner countries. Backed by European and African institutions, many post-graduate students were also supported.

- ▶ **250,000 smallholder farmers reached;**
- ▶ **2,626 researchers and 11,956 technical/development staff have strengthened their capacity, including about 525 women researchers (these are individuals benefitting from activities including researchers involved in the implementation of activities);**
- ▶ **338 Master and 203 PhD students supported, including at least 113 women.**

**OUTPUT 4**

**“Education and training programmes responsive to capacity development needs for agricultural innovation at national level are strengthened”**

Several DeSIRA projects play a role in developing or upgrading curricula or training packages. This shows the potential value of DeSIRA in an area which is not a primary objective of the initiative. Updating curricula commonly involves incorporating training topics such as climate change adaptation and mitigation, along with agroecology and knowledge management.

- ▶ **34 curricula or training packages have been upgraded or developed.**

**OUTPUT 5**

**“Science-based knowledge and evidence are generated and made available to inform research for innovation in agriculture, institutional cooperation and the dissemination of new climate-smart and agroecological solutions”**

The production of science-based knowledge and evidence is on the rise and demonstrates the full deployment of the DeSIRA initiative. Further increases are very likely when the projects come to an end as many research activities, Masters or PhDs are still on-going.

- ▶ **826 communication products;**
- ▶ **598 knowledge products developed, including 54 scientific publications.**

**OUTPUT 6**

**“Science-based policy briefs are produced and dialogues on agriculture and food policy development and reform are organized”**

The level of policy engagement at output level varies across DeSIRA projects: 32 projects have a policy objective; 7 projects are engaged in policy activities with no specific policy objective; 7 projects have no policy activities and no policy objective. The diversity of the topics covered by the policy outputs of R&I projects reflects the diversity of innovations under co-development. Policy topics of institutional projects focus on climate smart agriculture and knowledge management. Agroecology, despite rising interest, is not yet a key policy topic within these institutional projects.

- ▶ **61 policy dialogues organised, and 63 policy documents produced.**

*TAP “Developing capacities in agricultural innovation systems: scaling up the Tropical Agriculture Platform Framework” (implemented by the FAO in Burkina Faso, Eritrea, Malawi, Rwanda, Senegal, Cambodia, Laos, Pakistan, Colombia) produced two policy briefs at national level during the reporting period, and regular dialogues were held with policy makers: 1) in Cambodia “Bottom-up solutions to promote conservation agriculture in Cambodia; Results from a multistakeholder policy dialogue process”; 2) in Lao PDR “Maximizing benefits from agriculture exports for smallholder producers”.*

**OUTCOME 1**

**“The capacity and the resilience of smallholder farmers improve as they take up new climate-smart or agroecological products, technologies, models or services”**

The transformation of outputs into changes at farm level focuses on the capacity and resilience of smallholder farmers as they take up new climate-smart or agroecological innovations. Although the objective of most of the R&I projects is not to reach a large number of farmers directly, the number of farmers using these innovations is on the rise. Among the 36 R&I projects which target smallholder farmers directly, 18 reported a strategy to increase the effectiveness of dissemination and to scale up and scale out innovations. A further 18 projects were in the process of developing a strategy. Such strategies are key to engage actors in the innovation journey and to foster an enabling environment for innovation.

- ▶ **187 innovations already taken up by smallholder farmers;**
- ▶ **Over 91,000 smallholder farmers have taken up at least one innovation.**

*WE4F “Water and Energy for Food – East Africa Hub” (implemented by the GIZ in Kenya, Uganda, Rwanda, Ethiopia, Tanzania) reports that “78,882 smallholder farms introduced climate-friendly and energy and/or water-saving innovations in 2022. These farms were reached primarily through collaboration with and through SMEs. Additionally, 24,200 (32%) of the smallholder farms reached were run by women.” Innovations introduced by WE4F also include digital and finance solutions. For instance, six financing mechanisms have been developed some of them with the financial sector to provide smallholder farmers or end-users with access to innovative technologies at an affordable price.*

**OUTCOME 2**

**“Innovation capacities of research, technical and development institutions as well as capacities of farmers’ organisations to support agriculture innovation processes are strengthened”**

A majority of projects strengthen the capacities of FOs, NGOs or advisory services, which is key for co-innovating and scaling innovation. While almost all DeSIRA projects strengthen researchers’ capacities in partner countries, some also contribute to the institutional capacities of research organisations. However, the true influence of R&I projects at institutional level cannot be fully captured because most implementing partners do not have the right methodology in place to measure institutional changes.

- ▶ **575 organisations in the process of strengthening their capacity, including 150 national research entities, 157 FOs and about 75 local NGOs and community-based organisations, in addition to technical and development organisations (extension services, ministries, etc.).**

**OUTCOME 3**

**“Private sector capacities and value chains of agri-food systems are strengthened”**

The main focus of a majority of R&I projects is on sustainable production or natural resource management. However, as of 12/2022, 16 projects were also targeting downstream (mainly MSM enterprises involved in processing and marketing) and upstream actors (mainly input providers, energy providers and private advisory services). They were supporting value chains through the development of innovations beyond farm level. This is a limited number of projects, potentially affecting the deployment of innovations at scale.

- ▶ **182 agriculture and food-related micro, small or medium enterprises strengthened or created;**
- ▶ **58 value chains supported.**

**OUTCOME 4**

**“The agriculture and food systems policy environment is improved at national or international level”**

A significant number of DeSIRA projects aim to improve the enabling environment for scaling the innovations they promote. They have demonstrated their capacity to transform policy products (dialogues, briefs) into tangible outcomes such as policies, strategies or plans, mainly at national level. Specific capacities and skills are required at project level to be able to actively participate in science-policy interfaces.

- ▶ **64 policies, strategies or plans under development or endorsed by the relevant authorities;**
- ▶ **43 countries or international organisations that have increased their ability to sustainably transform agriculture and food systems and/or adapt to climate change.**



*FAIR-SAHEL “Fostering an Agroecological Intensification to improve farmers’ Resilience in the Sahel” (implemented by CIRAD in Burkina Faso, Mali, Senegal) reports several policy contributions through its consortium members: 1) in Senegal, the project contributes to Senegal’s agricultural policy “Plan Senegal Emergent-Vert”; It supports the implementation of the advocacy strategy of the “Dynamic for an AgroEcological Transition in Senegal”, a major agroecological movement; 2) in Burkina Faso, the project has been involved in the development of the National Agroecology Strategy for Burkina Faso; 3) in Mali, two project partners were at the heart of new consultations to harmonise approaches to agroecology led by the Ministry of Rural Development.*

**IMPACT PROSPECTS**

**“The DeSIRA initiative contributes to the climate-relevant, productive, and sustainable transformation of agriculture and food systems in low and middle-income countries”**

At this stage of implementation, the impact prospects of the DeSIRA initiative are difficult to frame because innovation processes take time. Besides, participatory R&I initiatives facilitate the deployment of innovations but depend upon development actors to scale and disseminate those innovations. Significant policy shifts also require time. The few projects already claiming contributions to impact usually include a strong development component. The contribution of the DeSIRA initiative to women’s empowerment is still too low and insufficiently documented, in spite of a few well-designed gender-focused initiatives. Over the long term, several organisations strengthened by DeSIRA projects are expected to achieve a positive impact on food system and innovation system transformation. In conclusion, the impact assessment of the DeSIRA projects requires a long-term perspective and specific methodologies.

► **More than 20,000 smallholder farmers claim socio-economic gains, a positive impact on agroecosystems and/or feel better equipped to cope with climate change-related shocks.**

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2019 —————> 2026

