

Development Smart Innovation through Research in Agriculture (DeSIRA) Global Monitoring and Evaluation Framework

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***Boosting agrifood research and innovation
cooperation for impact at scale***



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The Global M&E Framework of DeSIRA

WHAT IS IT?

- 82 projects: 72 Research and Innovation (R&I) projects, 8 institutional projects, 2 support projects
- A methodological tool is needed to identify and inform indicators at DeSIRA initiative-level

FOR WHAT PURPOSE?

- To facilitate the steering and management of the DeSIRA initiative at global level
- To report on the extent to which its overarching objectives are being achieved
- To communicate on new approaches to agricultural research and innovation

FOR WHOM?

- Global M&E Framework developed by ASRAFS (GFA Consulting Group)
- Main beneficiary and user is DG INTPA (F3)
- Other potential users: DeSIRA projects and EU Delegations

The Global M&E Framework – Methodology ^(1/4)

RELEVANCE - The GM&EF operates at Initiative/global level

- Not relevant to individual projects.
- Relevant to what the EU aims at achieving at global level through all projects
- Not a tool to monitor projects on an individual basis.
- It is not meant to support project-level monitoring processes.
- The GM&EF cannot reflect the diversity of projects or the complexity of innovation processes.

STRUCTURE - A logframe, 28 Global DeSIRA Indicators (GDIs)

- Logical framework: overall objective, 4 outcomes , 6 outputs.
- 28 GDIs characterize expected results at global/initiative level.
- All GDIs come with a clear definition.

The Result Chain of the DeSIRA Initiative

IMPACT

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

Each Output contributes to one or more Outcomes.

Outputs mutually reinforce each other.

All Outcomes together contribute to Impact.

Outcomes mutually reinforce each other.

OUTCOME 1

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

OUTCOME 2

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

OUTCOME 3

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

OUTCOME 4

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

OUTPUT 1

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

OUTPUT 2

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

OUTPUT 3

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

OUTPUT 4

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

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

OUTPUT 6

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

DeSIRA : Development Smart Innovation through Research in Agriculture

2019

2026



The Global M&E Framework – Methodology (2/4)

DATA COLLECTION - Annual meeting with each DeSIRA project

- Progress reports examined to determine whether and to which extent the project contributes to the GDIs.
- Not all the data needed for the GM&EF is available in project progress reports.
- GDIs can be informed without additional data collection by the Implementing Partners.
- GDIs are informed with both quantitative and qualitative data.

CAPTURING PROJECT RESULTS

- A link is created when the project contributes to a GDI.
- A link captures a project-level result that contributes to a given GDI.
- Links can be explicit: at project level, the contribution to the GDI is evidenced by a corresponding indicator.
- Links can be implicit: the project contributes to the GDI, but does not have a corresponding indicator.

Examples of Global DeSIRA Indicators

IMPACT	Number of smallholder farmers who claim socio-economic gains, a positive impact on agroecosystems and/or feel better equipped to cope with climate change-related shocks
	Number of organisations strengthened by DeSIRA projects, able to document a positive impact of the project on the transformation of agriculture and food systems at national, regional or international level
OUTCOME	Number of smallholder farmers who have taken up at least one climate-smart or agroecological innovation
	Number of organisations increasing their capacity to innovate in the area of agriculture and food systems
	Number of food value chains strengthened
	Number of policies, strategies or plans, fostered by multi-stakeholder processes, under development or endorsed by the relevant authorities
OUTPUT	Number of multi-stakeholder innovation platforms/mechanisms developed or strengthened
	Number of innovations under development
	Number of individuals whose capacities are developed
	Number of knowledge and communication products developed

The Global M&E Framework – Methodology (3/4)

GLOBAL DeSIRA INDICATORS

- Each project contributes to X number of GDIs, not to all GDIs.
- Global DeSIRA Indicators do not substitute project-level indicators.
- Global DeSIRA Indicators are not mandatory at project level.

ATTRIBUTING VALUES TO GDIs

- For each link, a quantitative value is attributed the GDI
 - This is the quantitative contribution of a given project to a given GDI.
 - Qualitative information is also collected for each link.

AGGREGATING GDI VALUES ACROSS PROJECTS

- At initiative level, the global value of a GDI is the sum of all project-level contributions to this GDI.

The Global M&E Framework - Methodology (4/4)

Preparation of the Annual Global Report (AGR)

- AGR based on these values and qualitative information gathered during interviews and in progress reports.
- The AGR is a progress report at initiative/global level.
- It is not an evaluation of the DeSIRA projects.

Complete methodology available @

- https://capacity4dev.europa.eu/library/methodology-global-monitoring-and-evaluation-framework-desira_en

The DeSIRA Annual Global Report (AGR)

AGR 2021

- Development of the Global M&E Framework in 2021/22
- First Annual Global Report (AGR 2021)
- Reporting period 2019-2021
- 25 DeSIRA projects

AGR 2022/23

- Second Annual Global Report (AGR 2022/23)
- Reporting period 2019-2022
- 42 DeSIRA projects
- https://www.desiraliftcommunity.org/wp-content/uploads/2024/05/240503-Annual-Global-Report-2023_DeSIRA-Global-Monitoring-and-Evaluation-Framework-1.pdf

AGR 2024

- Third Annual Global Report (AGR 2024)
- Reporting period 2019-2023
- 79 DeSIRA projects

Annual Global Report 2024: DeSIRA projects

Categories

- Projects having at least 2 years of implementation at the time of data collection (May to November 2024).
- 72 Research & Innovation project (Pillar I)
- 7 institutional projects (Pillar II)

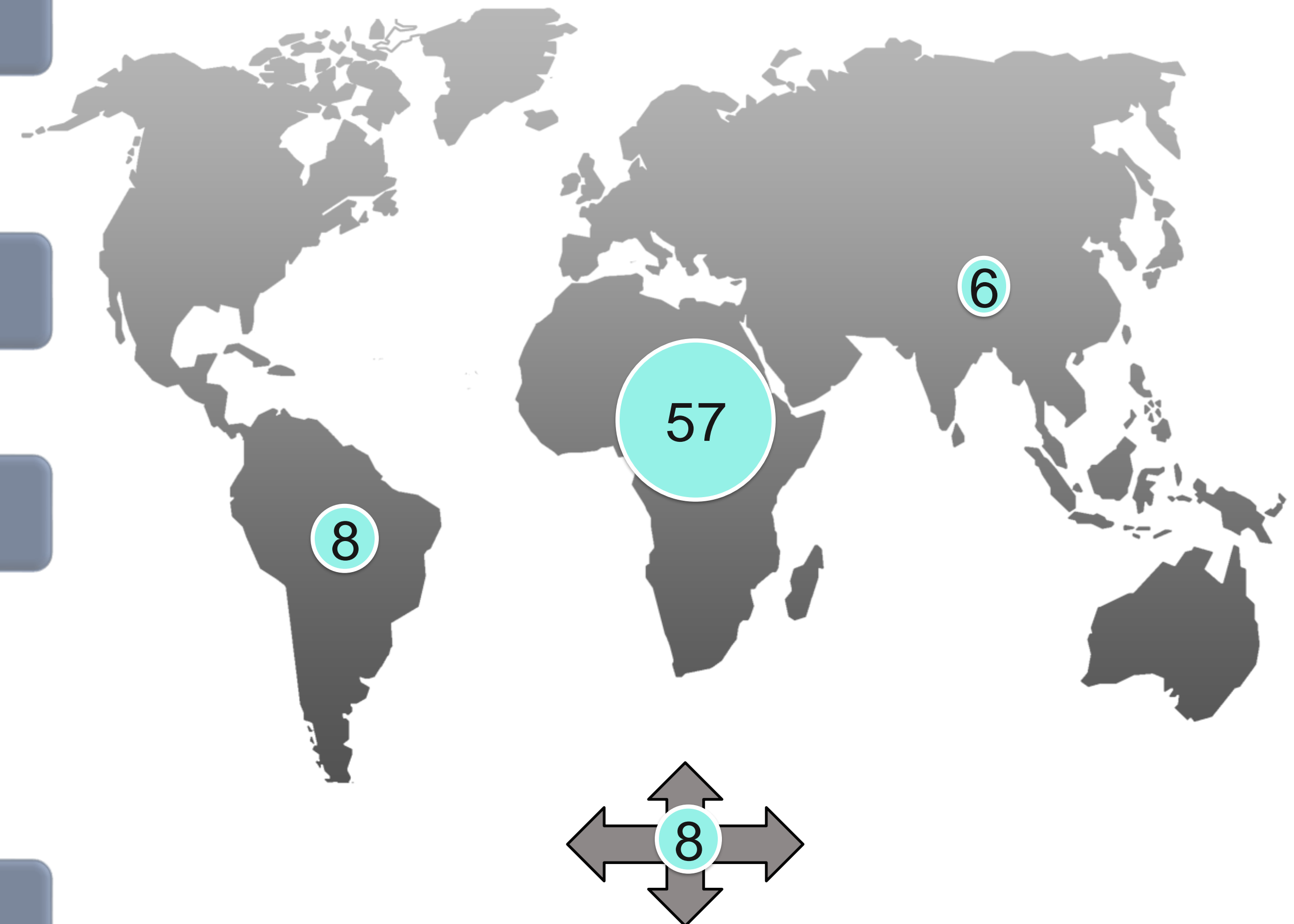
Location

- Africa, Latin America, Asia
- 8 projects cover multiple countries spanning across at least 2 regions

Main topics of R&I projects

- Agroecology and Sustainable Agriculture
- Sustainable Resources Management
- Livestock Management and Pastoralism
- Research Infrastructure Conducive to Innovation
- Pre-production and Technology Development
- Strengthening of Innovation Support Services
- Improved Nutrition and Food Security

CUMULATIVE DATA 2019-2023



Researchers & organisations involved in implementation

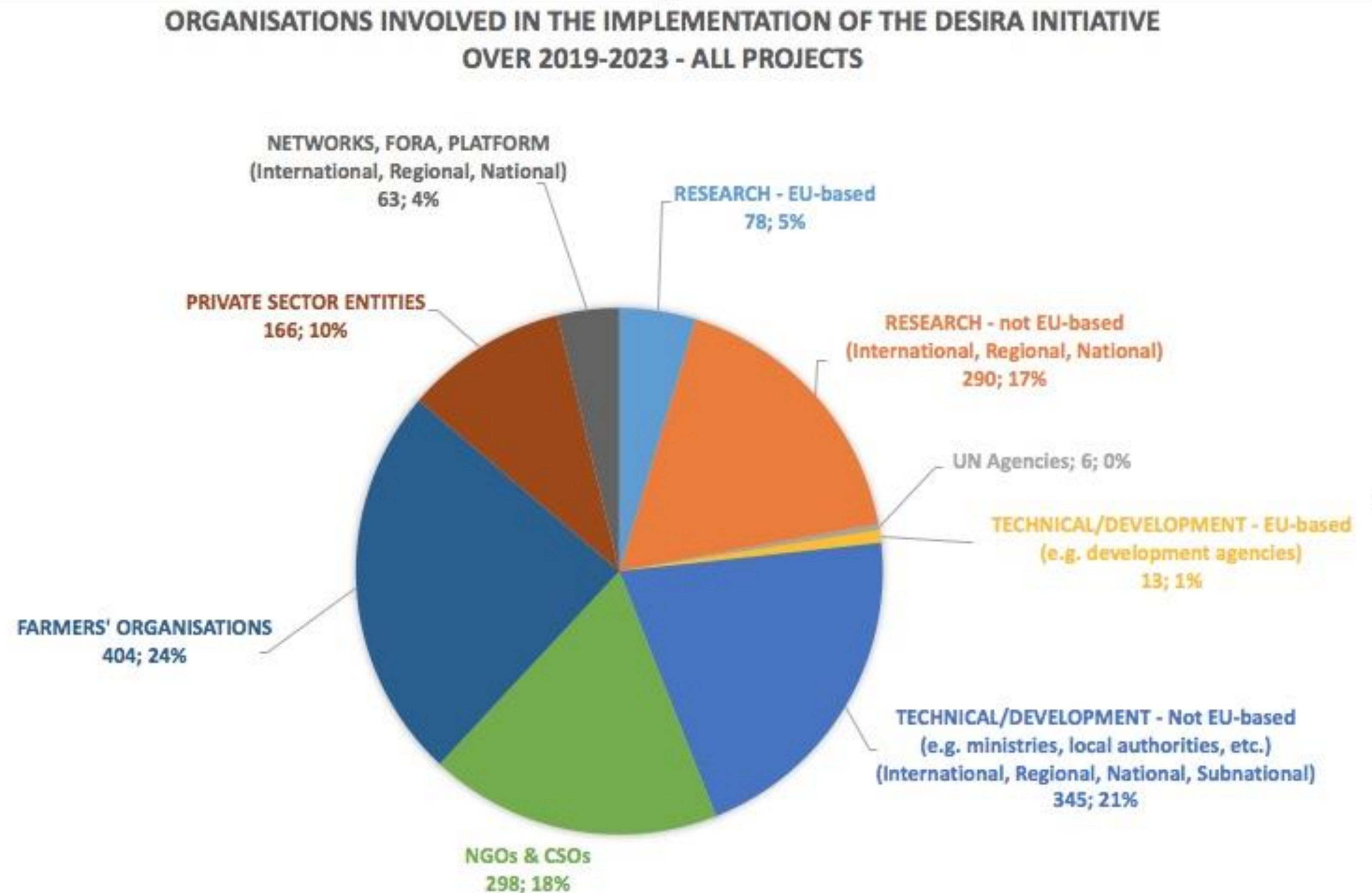
2855 researchers

- 743 (26%) are women, at least
- 1992 (70%) are from DeSIRA target countries

1663 organisations

- 78 European research organisations involved in implementation,
- 27 of them involved in more than one DeSIRA project

Source: Global M&E Framework - DeSIRA
CUMULATIVE DATA 2019-2023





Output 1 - Multi-stakeholder innovation mechanisms

- 688 multi-stakeholder innovation mechanisms strengthened or created at international, regional, national, and local levels.
- To facilitate interactions between actors and the joint design of climate-smart and agroecological innovations.
- To demonstrate the ability of research bodies to work with diverse actors at different levels.
- To create the conditions for disseminating or scaling innovations.

Number of projects contributing to the GDI	GDI #	Global DeSIRA Indicators - OUTPUT 1	R&I projects	Institutional projects
		“The mechanisms for inter-institutional cooperation and the joint design of climate-smart and agroecological innovations are developed”		
19	# 21A	Number of multi-stakeholder innovation platforms/mechanisms developed or strengthened (Regional or international level)	18	29
34	# 21B	Number of multi-stakeholder innovation platforms/mechanisms developed or strengthened (National level)	91	73
46	# 21C	Number of multi-stakeholder innovation platforms/mechanisms developed or strengthened (Subnational level)	454	3

Source: Global M&E Framework - DeSIRA
CUMULATIVE DATA 2019-2023



Output 2 - Innovations at farm & institutional levels

- 1,577 climate-smart or agroecological innovations in progress or developed for use by farmers.
- 378 innovations in progress or developed for use by institutions or private sector entities.
- A diversity of products, technologies, practices, production systems, services, decision-making tools (etc.).
- Innovations for use by institutions or private sector entities play an increasing role in strengthening stakeholders and fostering inter-institutional arrangements.

Number of projects contributing to the GDI	GDI #	Global DeSIRA Indicators - OUTPUT 2 “Innovations linked to agri-food systems are developed and made available at farm and institutional levels”	All DeSIRA projects (mostly R&I)
58	# 22A	Number of climate-smart or agroecological innovations under development (At farm level: products, technologies, agricultural practices, farming systems)	1475
45	# 22B	Number of climate-smart or agroecological innovations under development (At farm level: services, decision making tools, governance mechanisms)	102
72	# 22C	Number of innovations under development (Beyond farm level, including at institutional level)	378

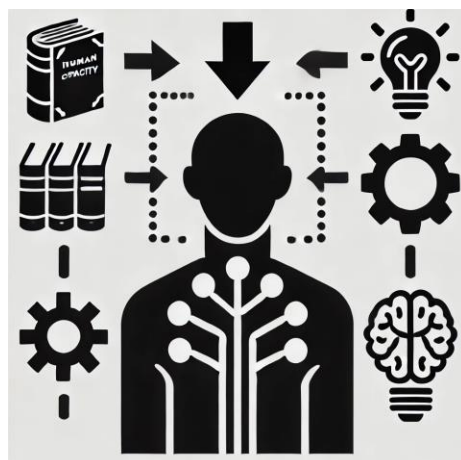
Source: Global M&E Framework - DeSIRA
CUMULATIVE DATA 2019-2023



Output 2 - Innovations at farm & institutional levels

Examples of innovations

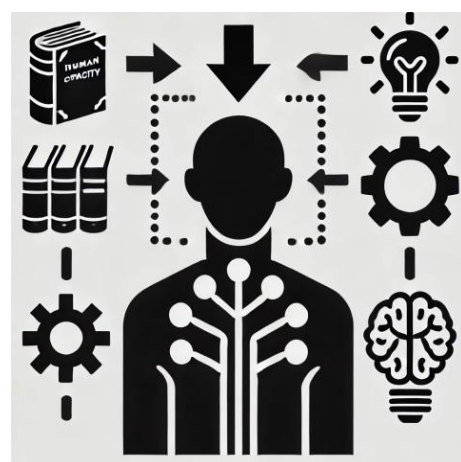
- **Products:** e.g. biopesticides, biofertilizers,
- **Crop varieties:** e.g. climate-resilient varieties of coffee resistant to pests and diseases
- **Technologies:** e.g. livestock identification and traceability system; post-harvest management technologies for storage at farm level.
- **Agricultural practices:** e.g. soil amendments for reducing Cadmium accumulation in cocoa beans; the use of essential oils to control bacterial plant diseases
- **Farming systems:** e.g. rice-agroforestry system;
- **Services:** e.g. a participatory guarantee system label for organic agriculture; new extension service;
- **Decision making tools:** e.g. a water level app;
- **Institutional innovations:** e.g. sampling and diagnostic protocols or tools; landscape management plan;
- **Innovations for the private sector:** manufacturing processes for new equipment; new food products.



Output 3 – Capacity development of individuals

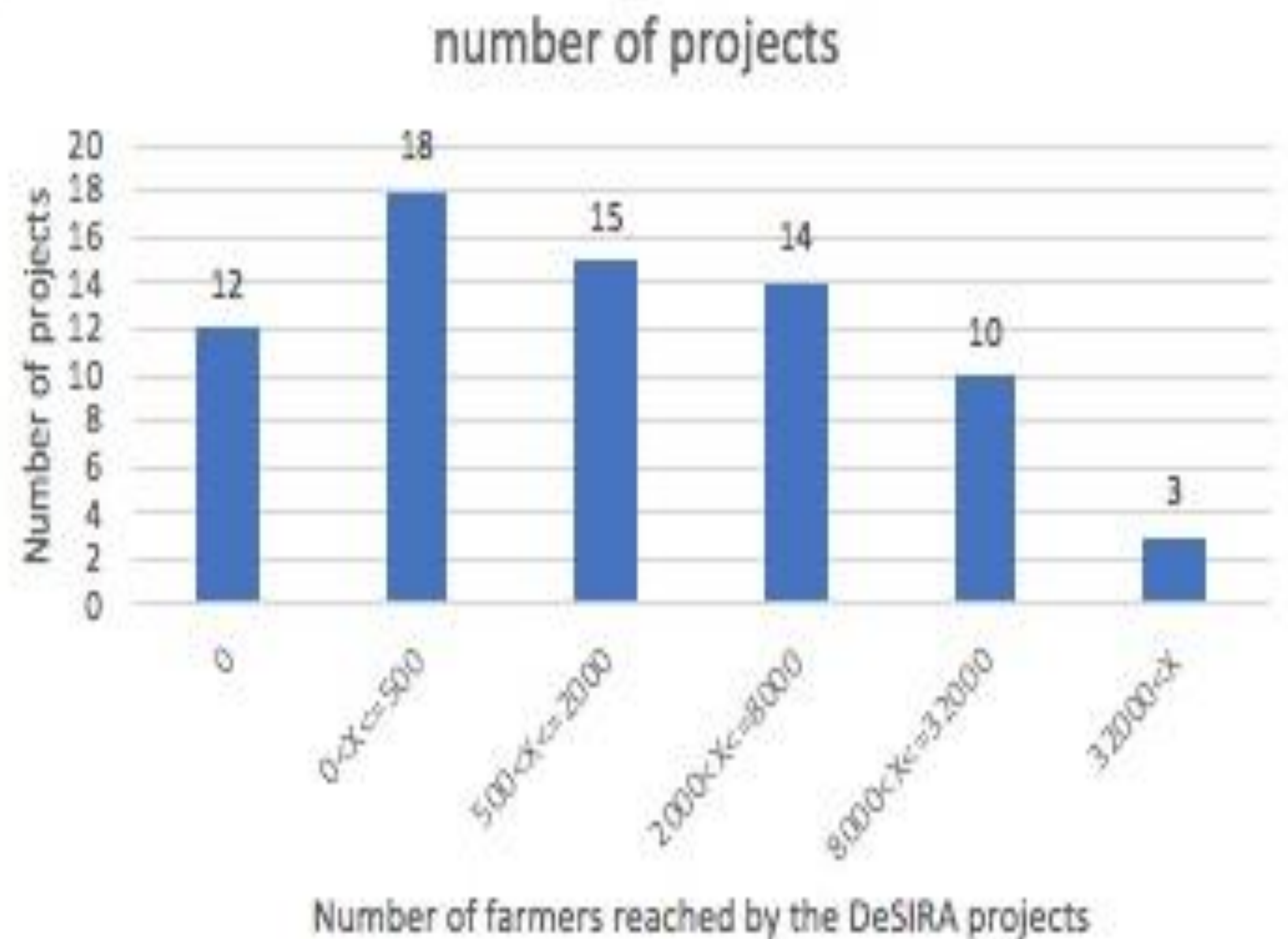
Number of projects contributing to the GDI	GDI #	Global DeSIRA Indicators - OUTPUT 3	R&I projects	Institutional projects
		“Farmers are reached by research and innovation initiatives, and individual capacities are developed beyond farm level, including at institutional level”		
62	# 23	Number of smallholder farmers reached by research & innovation initiatives	411925	358
66	# 24A	Number of individuals whose capacities are developed (Researchers)	2708	953
62	# 24B	Number of individuals whose capacities are developed (Technical or Development Staff)	30785	3275
49	# 25A	Number of individuals supported to earn a post-graduate diploma (Master's)	681	X
48	# 25B	Number of individuals supported to earn a post-graduate diploma (PhD/Doctorate)	314	X

Source: Global M&E Framework - DeSIRA
CUMULATIVE DATA 2019-2023

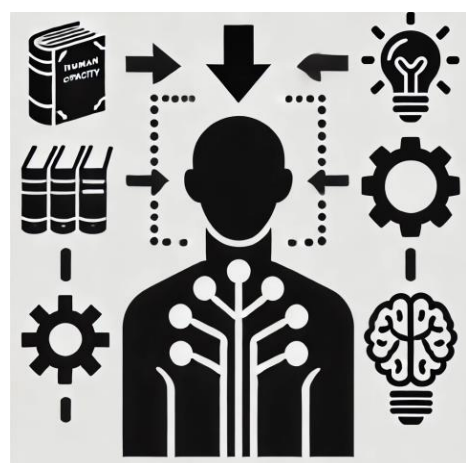


Output 3 – Capacity development of individuals

- Solid progress in reaching smallholder farmers: at least 410,000 smallholder farmers reached.
- Three R&I projects with a strong development focus account for half the farmers reached.
- A quarter of R&I projects reached fewer than 500 farmers.
- 3,600 researchers whose capacity has been strengthened, including at least 705 women.
- 34,000 technical/development staff whose capacity has been strengthened.

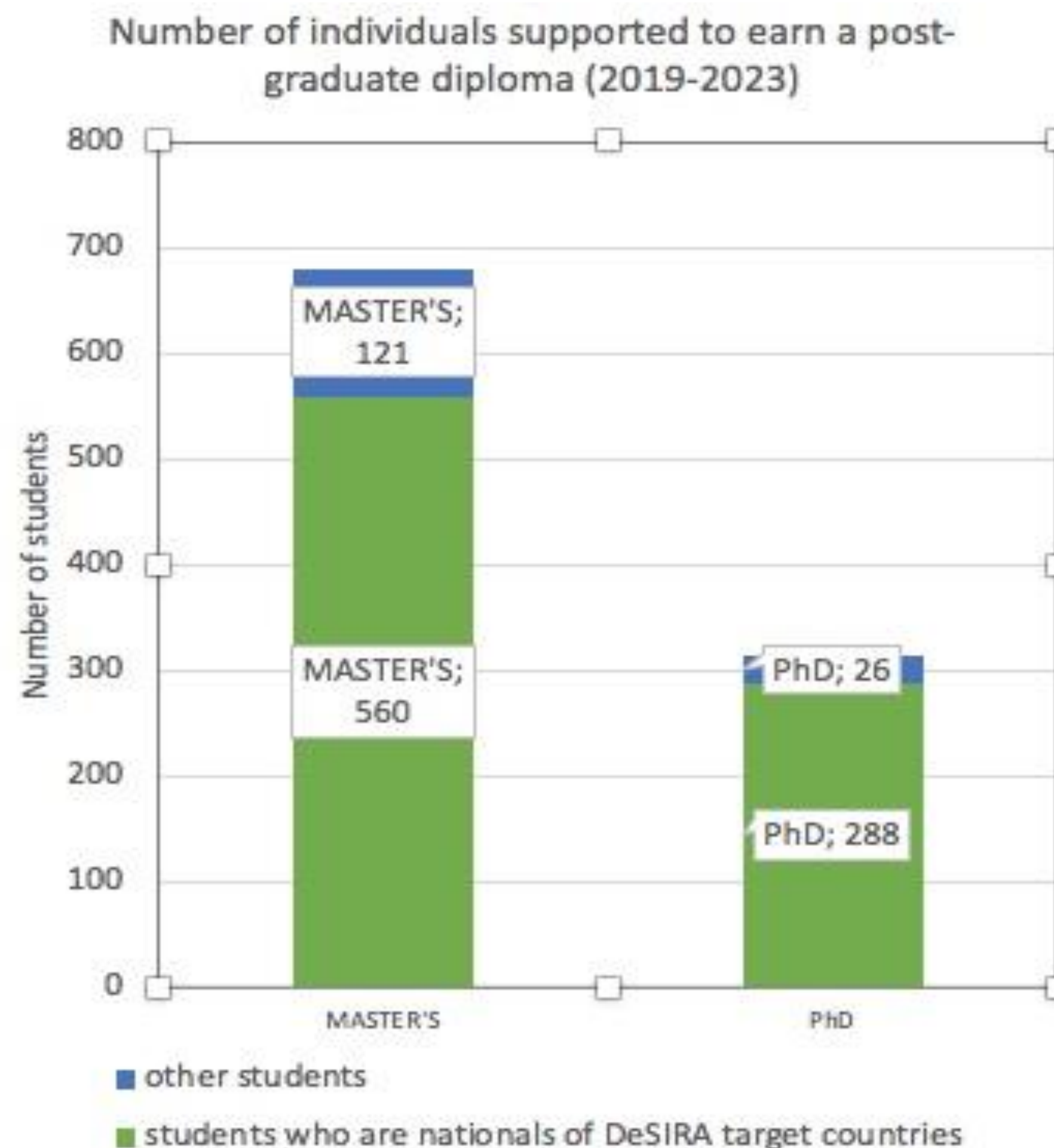


Source: Global M&E Framework - DeSIRA
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Output 3 – Capacity development of individuals

- Support to many postgraduate students, backed by European and African institutions.
- Most students are from beneficiary countries in Africa.
- 681 Master's students supported, including 266 women; 560 from beneficiary countries.
- 314 PhD students supported, including 107 women; 288 from beneficiary countries.
- Professionals seeking higher degrees or younger individuals involved in the implementation of activities while pursuing academic studies.



Source: Global M&E Framework - DeSIRA
 CUMULATIVE DATA 2019-2023



Output 4 – Education and training programmes

- Significant number of projects with plans to develop or improve curricula or education programmes, typically building on R&I results.
- 116 curricula or training packages upgraded or developed.
- Updating curricula: to incorporate training topics such as climate adaptation and mitigation, along with agroecology and knowledge management.

Number of projects contributing to the GDI	GDI #	Global DeSIRA Indicators - OUTPUT 4 “Education and training programmes responsive to capacity development needs for agricultural innovation at national level are strengthened”	R&I projects	Institutional projects
28	# 26	Number of curricula or training packages developed or upgraded	98	18

Source: Global M&E Framework - DeSIRA
CUMULATIVE DATA 2019-2023



Output 5 – Knowledge and communication products

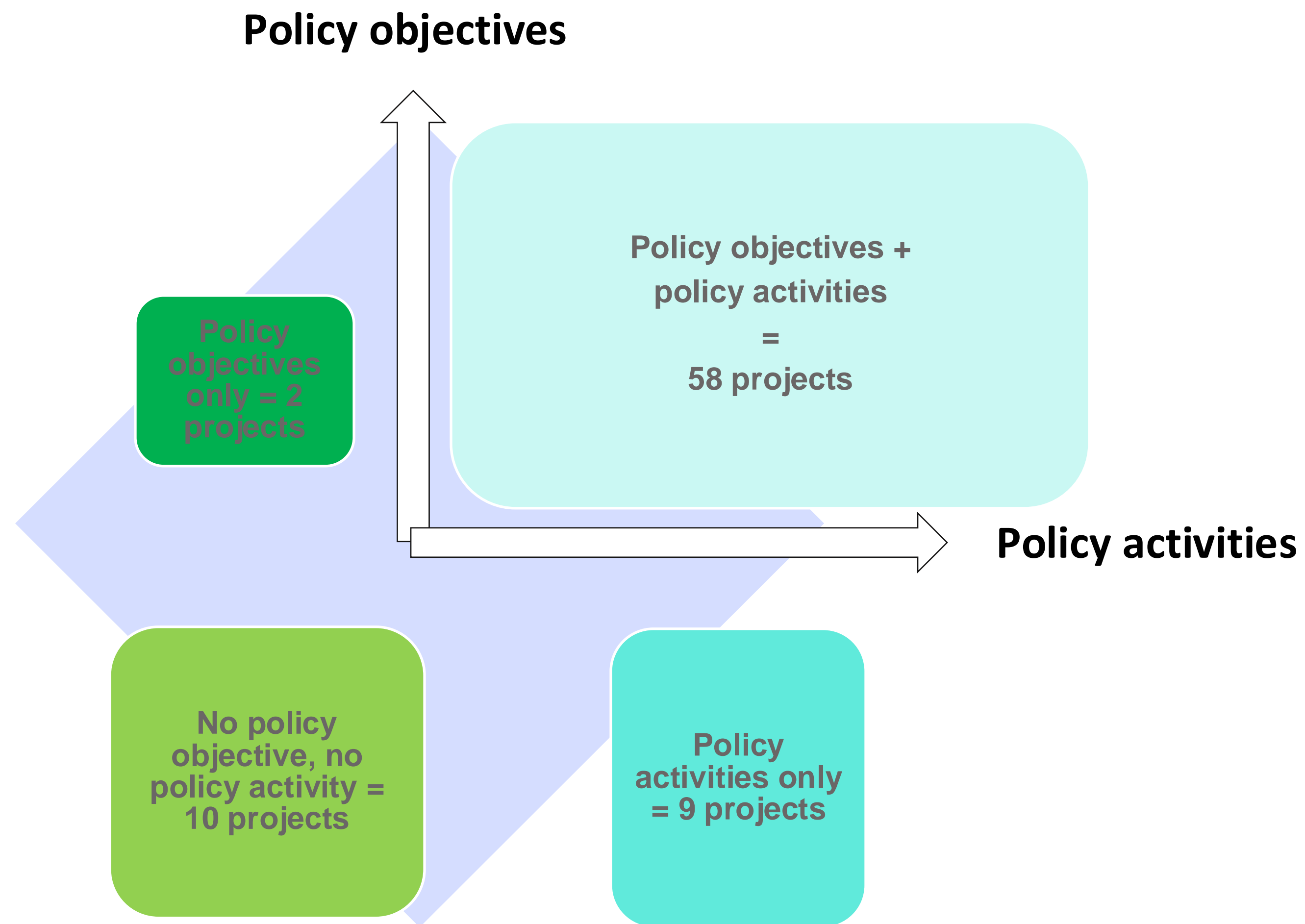
- Ever-increasing production of science-based knowledge and evidence for a diversity of actors.
- More knowledge products expected due to project extensions.
- At least 2,091 communication products developed for all audiences.
- 1,661 knowledge products developed, including 193 scientific publications.

Number of projects contributing to the GDI	GDI #	Global DeSIRA Indicators - OUTPUT 5	All DeSIRA projects
		“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”	
77	# 27A	Number of knowledge & communication products developed (Communication products)	2091
71	# 27B	Number of knowledge & communication products developed (Technical reports)	1152
47	# 27C	Number of knowledge & communication products developed (Guidance manuals)	247
41	# 27D	Number of knowledge & communication products developed (Databases)	69
40	# 27E	Number of knowledge & communication products developed (Scientific publications)	193



Output 6 – Policy outputs

- The level of policy engagement varies across DeSIRA projects:
- 60 have a specific policy objective;
- 9 are engaged in policy activities with no specific policy objective;
- 10 have no policy activities or objective.



Source: Global M&E Framework - DeSIRA
CUMULATIVE DATA 2019-2023



Output 6 – Policy outputs

- Most projects now involved in policy dialogue to improve the enabling environment for the scaling of innovations (technical or institutional).
- Diversity of the topics covered by the policy outputs of R&I projects.
- Policy topics of institutional projects focus on climate-smart agriculture and knowledge management.
- 140 policy dialogues organised, and 133 policy documents produced.

Number of projects contributing to the GDI	GDI #	Global DeSIRA Indicators - OUTPUT 6 “Science-based policy briefs are produced and dialogues on agriculture and food policy development and reform are organized”	R&I projects	Institutional Projects
35	# 28A	Number of policy-related outputs (Documents)	81	52
33	# 28B	Number of policy-related outputs (Dialogues)	87	53

Source: Global M&E Framework - DeSIRA
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Outcome 1 - Innovations taken up by smallholder farmers

- Most R&I projects are not designed to maximize reach, and some do not report on the use or uptake of innovations.
- 621 innovations already taken up by smallholder farmers.
- At least 265,000 smallholder farmers have taken up at least one innovation.
- 50 R&I projects (70%) now have a dissemination or scaling strategy.

Number of projects contributing to the GDI	GDI #	Global DeSIRA Indicators - 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”	R&I projects
40	# 8A	Number of climate-smart or agroecological innovations taken up by smallholder farmers (Products, technologies, agricultural practices, farming systems)	552
29	# 8B	Number of climate-smart or agroecological innovations taken up by smallholder farmers (Services, decision making tools, governance mechanisms)	69
42	# 9	Number of smallholder farmers who have taken up at least one climate-smart or agroecological innovation	265361
6	# 10	Number of DeSIRA projects for which the expected rate of implementation of innovations by targeted farmers has been met	6
50	# 11	Number of DeSIRA projects having at least one documented strategy to disseminate or scale up innovations	50

Source: Global M&E Framework - DeSIRA
CUMULATIVE DATA 2019-2023



Outcome 2 – Institutional capacity development

- 86% R&I projects strengthen the capacities of farmers' organisations, NGOs or advisory services.
- R&I projects also contribute to the institutional capacity of organisations involved in their implementation, but lack a methodology to measure these changes.
- Institutional projects focus on strengthening the organisations they target and report positive changes.
- R&I projects also contribute to the institutional capacity of organisations involved in their implementation, but lack a methodology to measure these changes.
- 1,440 organisations in the process of strengthening their capacities, including 607 farmers' organisations, 223 national research entities, 157 local NGOs and community-based organisations, in addition to 278 national or local technical/development organisations.

Number of projects Contributing to the GDI	GDI #	Global DeSIRA Indicators - OUTCOME 2 “Innovation capacities of research, technical and development institutions as well as capacities of farmers' organisations to support agriculture innovation processes are strengthened”	All DeSIRA projects
40	# 12A	Number of organisations increasing their capacity to innovate in the area of agriculture and food systems (Regional or international)	155
67	# 12B	Number of organisations increasing their capacity to innovate in the area of agriculture and food systems (National or subnational research institutions)	223
55	# 12C	Number of organisations increasing their capacity to innovate in the area of agriculture and food systems (National or subnational technical/development institutions)	278
53	# 12D	Number of organisations increasing their capacity to innovate in the area of agriculture and food systems (National or subnational FOs, NGOs, CSOs)	784
44	# 13	Number of new institutional partnerships on agriculture and food systems triggered by DeSIRA projects	284

Source: Global M&E Framework - DeSIRA
CUMULATIVE DATA 2019-2023



Outcome 3 - Support to private sector & value chains

- Increasing contribution to value chain development and private sector engagement.
- 40 projects (55%) target downstream and upstream actors.
- Support approaches are either holistic, considering the entire value chain, or are more narrowly targeted at specific segments of the value chains.
- 1,357 agriculture and food-related micro, small or medium enterprises strengthened or created.
- 165 value chains supported in 45 countries.

Number of projects contributing to the GDI	GDI #	Global DeSIRA Indicators - OUTCOME 3 “Private sector capacities and value chains of agri-food systems are strengthened”	All DeSIRA projects
17	# 14	Number of sustainable or climate-smart innovations taken up by agriculture and food-related MSMEs	110
15	# 15	Number of agriculture and food-related MSMEs which have taken up at least one sustainable innovation	309
40	# 16	Number of agriculture and food-related MSMEs strengthened or created	1395
41	# 17	Number of food value chains strengthened	165
2	# 18	Number of full-time food industry-related jobs created	1980

Source: Global M&E Framework - DeSIRA
CUMULATIVE DATA 2019-2023



Outcome 4 – Policy outcomes

- 75% of projects have policy objectives.
- Growing ability to transform policy-related knowledge products into tangible outcomes: new or revised policies, strategies or plans, at national or subnational levels.
- 184 policies, strategies or plans influenced by a DeSIRA project, under development or endorsed by the relevant authorities.
- 51 countries or international organisations developing or having endorsed a policy, strategy or plan, which increases their ability to sustainably transform agriculture and food systems and/or adapt to climate change.

Number of projects contributing to the GDI	GDI #	Global DeSIRA Indicators - OUTCOME 4 “The agriculture and food systems policy environment is improved at national or international level”	All DeSIRA projects
42	# 19	Number of policies, strategies or plans, fostered by multi-stakeholder processes, under development or endorsed by the relevant authorities	184
42	# 20	Number of countries or international organisations developing or having endorsed a policy, strategy or plan which increases their ability to sustainably transform agriculture and food systems and/or adapt to climate change	51

Source: Global M&E Framework - DeSIRA
CUMULATIVE DATA 2019-2023



Outcome 4 – Policy outcomes

DeSIRA LIFT: learning review to assess the contribution of DeSIRA projects to policy change

- <https://www.desiralift.org/wp-content/uploads/2025/03/0703DeSIRA-LIFT-Learning-brief1.pdf>

Policy influence at multiple levels (regional, national, municipal, county)

- **Regional level:** guidelines for the agroecological transition adopted by ASEAN (Association of Southeast Asian Nations).
- **National level:** revision of the Ghana Fertilizer Policy; Presidential Decree “On Additional Measures to Increase Efficiency Through the Integration of Science, Research, Knowledge, and Production” in Uzbekistan.
- **Subnational level:** facilitation of the Low Carbon Agriculture Plan for the State of Pará (Brazil); Participatory Integrated Land Use Planning adopted by six local governments in Ethiopia.

On agroecology, growing number of project partners contributing to policies at national or regional level

- National Strategy for the Development of Agroecology in Burkina Faso;
- Plan Senegal Emergent (PSE) Vert;
- National Strategy for the Production of Ecological and Organic Agriculture in Benin (SNAEB, 2022-2030);
- Kenyan National Agroecology Strategy;
- Action plan of the National Consultation Framework (CCN) for the agroecological transition in Cote d'Ivoire;
- National Agroecology Strategy in Ethiopia;
- National Action Plan for Food Systems transformation in Vietnam;
- Agroecology guidelines at ASEAN level;
- Roadmap for the implementation of agroecology in national policies and strategy in Lao PDR;
- National Agroecology Agenda in Colombia ;
- National Agroecological Production Plan in Brazil;
- Cuban Food Sovereignty and Food and Nutritional Security Law.



Impact prospects

Number of projects contributing to the GDI	GDI #	Global DeSIRA Indicators – IMPACT “The DeSIRA initiative contributes to the climate-relevant, productive, and sustainable transformation of agriculture and food systems in low and middle-income countries”	R&I projects	Institutional projects
15	# 1	Number of smallholder farmers who claim socio-economic gains, a positive impact on agroecosystems and/or feel better equipped to cope with climate change-related shocks	44245	X
19	# 2	Number of smallholder farmers expected to benefit from innovations disseminated beyond the projects’ target groups	610335	X
24	# 3A	Number of hectares of agricultural or pastoral land where innovative climate-smart or agroecological practices have been introduced (By target groups)	157639	X
1	# 3B	Number of hectares of agricultural or pastoral land where sustainable innovative climate-smart or agroecological practices have been introduced (By indirect beneficiaries)	13200	X
18	# 4	Number of DeSIRA interventions claiming positive, documented impact on agroecosystems at farm level	18	X
7	# 5	Number of DeSIRA interventions claiming positive, documented contribution to the status and role of smallholder female farmers or female food entrepreneurs	7	X
9	# 6	Number of organisations strengthened by DeSIRA projects, able to document a positive impact of the project on the transformation of agriculture and food systems at national, regional or international level	15	16
2	# 7	Number of endorsed policies, strategies or plans supported by DeSIRA projects and demonstrating a positive impact on the transformation of agriculture and food systems at national, regional or international level	2	0

Source: Global M&E Framework - DeSIRA
CUMULATIVE DATA 2019-2023



Impact prospects

- Difficult to frame because R&I processes in the agricultural sector take time.
- Impact depends upon development and policy actors to scale and disseminate innovations.
- Significant policy shifts require time.
- 9 projects claim a significant contribution to impact.
- About 45,000 smallholder farmers claim socio-economic gains, a positive impact on agroecosystems and/or feel better equipped to cope with climate change-related shocks.
- Gender equality not sufficiently mainstreamed in the design of many R&I projects.
- 31 organisations strengthened by DeSIRA claim to be taking steps to better contribute to the sustainable transformation of agri-food systems.
- Significant institutional impact is expected to emerge after the projects are completed.

Source: Global M&E Framework - DeSIRA
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Thank you!



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