CLIMATE ACTION REPORT 2021

IFAD
Investing in rural people

CLIMATE ACTION REPORT 2021

IFAD
Investing in rural people

Acknowledgements

The Climate Action Report 2021 was prepared under the overall guidance of Jyotsna Puri, Associate Vice-President of the Strategy and Knowledge Department, under the technical leadership of Hisham Zehni, and internal co-leads Alashiya Gordes and Ricci Symons, with the invaluable support of Gordon Ramsay.

Invaluable inputs were also received from Arundhati Inamdar Willetts, Erica Doro, Fanny Minjauw, Gianluca Gondolini, Ilaria Caputo, Janie Rioux, Maria-Elena Mangiafico, May David, Mena Grossman, Nadine Azzu, Philip Audebert, Pierre-Yves Guedez, Renee Ankarfjard, Romina Cavatassi, Sophie De Vos, and Tom Anyonge.

ISBN 978-92-9266-288-2
Printed November 2022

Table of contents

Abbreviations 5

Foreword 7

Chapter 1: Roads to resilience: Where IFAD is coming from and where we are going 10

Key points 10

Conclusion 12

Chapter 2: Mainstreaming climate and environment into IFAD's portfolio 13

Key points 13

2.1 Mainstreaming climate change into IFAD country strategies 13

2.2 Social, Environmental and Climate Assessment Procedures 16

2.3 The IFAD strategy on biodiversity 19

Conclusion 21

Chapter 3: Financing climate action 22

Key points 22

3.1 IFAD programme of loans and grants 22

3.2 ASAP Trust Fund 27

3.3 Supplementary environment and climate finance 28

Conclusion 34

Chapter 4: Delivering impact 35

Key points 35

4.1 IFAD performance ratings 35

4.2 Adaptation for Smallholder Agriculture Programme results 37

4.3 Carbon balance analysis of IFAD projects 40

4.4 Global Environment Facility project implementation progress 49

4.5 Impact assessments 51

Conclusion 57

IFAD climate publications in 2021 58

What to expect in the next Climate Action Report 60

Annex: IFAD climate finance by project (January 2021 to December 2021) 62

Table of figures

Figure 1. IFAD11 country strategies by approval year 14
Figure 2. IFAD11 country strategies by IFAD region 14
Figure 3. Environmental and social risk ratings 18
Figure 4. Climate risk ratings 18
Figure 5. Link between biodiversity, mainstreaming themes and Indigenous Peoples 20
Figure 6. Share of climate finance in IFAD11 PoLG 23
Figure 7. IFAD11 climate finance programming 23
Figure 8. IFAD climate change adaptation finance by MDB sectors and subsectors 24
Figure 9. IFAD climate change mitigation finance by MDB category and subcategory 25
Figure 10. IFAD total climate finance by region vs total volume of IFAD finance approved 26
Figure 11. Climate finance programming and social inclusion themes in 2019-2021 27
Figure 12. IFAD-GEF active portfolio by focal area 31
Figure 13. IFAD-GEF active portfolio by region 31
Figure 14. Cumulative carbon balance since 2010 by type of financing 41
Figure 15. Carbon balance of 2021-approved projects by type of financing and region 41
Figure 16. Carbon balance of APR IFAD11 projects 42
Figure 17. Carbon balance of ESA IFAD11 projects 43
Figure 18. Carbon balance of NEN IFAD11 projects 44
Figure 19. Carbon balance of LAC IFAD11 projects 45
Figure 20. Carbon balance of WCA IFAD11 projects 46
Figure 21. Carbon balance of the ROLL project in Lesotho by activity 48
Figure 22. Carbon balance of the CASP+ project in Tajikistan by activity 49

Table of tables

Table 1. GCF project approvals to date 28
Table 2. GEF project approvals 2021-2022 32
Table 3. Adaptation Fund project approvals 2021-2022 34
Table 4. IFAD projects in 2021: Environment and climate performance ratings (as of December 2021) 36
Table 5. Regional breakdown of all ASAP projects 37
Table 6. Aggregate programme targets and results against ASAP1 log frame 39

Table of boxes

Box 1. ASAP Technical Series: Nature-based Solutions 21
Box 2. Note on climate finance tracking methodologies 23
Box 3. Accreditation upgrade with the GCF 30

Abbreviations

ACC	Adaptation to climate change
ACCESOS	Economic Inclusion Programme for Families and Rural Communities in the Territory of Plurinational State of Bolivia
AFOLU	agriculture, forestry and other land use
AICRM	Africa Integrated Climate Risk Management Programme
AMD	Adaption to Climate Change in the Mekong Delta in Ben Tre and Tra Vinh Provinces (Viet Nam)
APR	Asia and the Pacific Region
ASAP	Adaptation for Smallholder Agriculture Programme
CAR	Climate Action Report
CASP+	Community-based Agricultural Support Project Plus (Tajikistan)
CO_2e	Carbon dioxide equivalent
COSOP	Country strategic opportunities programme
CSN	Country strategy note
DEFIS	Agricultural Value Chains Development Programme (Madagascar)
ENRM	Environmental and natural resource management
ESA	East and Southern Africa
EX-ACT	Ex-Ante Carbon-balance Tool
GCF	Green Climate Fund
GEF	Global Environment Facility
GHG	Greenhouse gas
GLEAM-i	Global Livestock Environmental Assessment Model-interactive
GUATEINNOVA	Responding to COVID-19: Modern and Resilient Agrifood Value Chains Project (Guatemala)
IMPLI	Integrated Management of Peatland Landscapes in Indonesia
IPPC	Intergovernmental Panel on Climate Change
KDNAMAP	Kenya Dairy Nationally Appropriate Mitigation Action Project
KeLCoP	Kenya Livestock Commercialization Project
LAC	Latin America and the Caribbean
LPDPII	Livestock and Pasture Development Project (Tajikistan)
MDB	Multilateral development bank
NbS	Nature-based solutions
NEN	Near East and North Africa
NICADAPTA	Adapting to Markets and Climate Change Project in Nicaragua
PAGES	Amazon Sustainable Management Project (Brazil)
PCRP	Planting Resilience in Rural Communities of the Northeast (Brazil)
PGIRE	Integrated Water Management Project (Djibouti)

PICSA	Partnerships for Irrigation and Commercialisation of Smallholder Agriculture Project (Lao People's Democratic Republic)
PoLG	Programme of loans and grants
PRISM	Partnership for Resilient and Inclusive Small Livestock Markets Programme (Rwanda)
PROCAVA	Agrifood Value Chain Development Programme (Mozambique)
PRODECAFE	Agroforestry Cooperative Development Project (Cuba)
PROSUL	Pro-Poor Value Chain Development in the Maputo and Limpopo Corridors (Mozambique)
REDE	Family Farming Diversification, Integrated Markets, Nutrition and Climate Resilience Project (Guinea-Bissau)
RIDE	Report on IFAD's Development Effectiveness
ROLL	Regeneration of Livelihoods and Landscapes Project (Lesotho)
RSF	Resilient Food Systems programme
SAAMBAT	Sustainable Assets for Agriculture Markets, Business and Trade (Cambodia)
SAPP	The Sustainable Agricultural Production Programme (Malawi)
SDGs	Sustainable Development Goals
SECAP	Social, Environmental and Climate Assessment Procedures
SMPEI	Sustainable Management of Peatland Ecosystems in Indonesia
SNRLP	Sustainable Natural Resources and Livelihoods Programme (Sudan)
S-RET	The Building Adaptive Capacity through the Scaling-up of Renewable Energy Technologies in Rural Cambodia
UNFCC	United Nations Framework Convention on Climate Change
WCA	West and Central Africa

©IFAD/Ibrahima Kebe Diallo

Foreword

2021 was a pivotal year for IFAD. In February, representatives from IFAD Member States came together for the consultation for IFAD's 12th replenishment (IFAD12) in order to review the Fund's performance, decide on its future strategic direction and priorities, and replenish its financial resources for the next three-year cycle (2022-2025). The subtitle of the replenishment consultation report, Recovery, Rebuilding, Resilience, gives a clear indication of the Fund's priorities over the coming three years. IFAD will forge partnerships and mobilize resources to build resilience in rural communities in developing countries and support them in recovering and rebuilding from the impacts of the COVID-19 pandemic and conflict.

The holistic multiple-benefit approach to building resilience that IFAD follows in its climate finance is gaining traction within the broader international framework for climate action as can be seen in the Glasgow Climate Pact that emerged out of COP26 of the United Nations Framework Convention on Climate Change (UNFCCC) in Glasgow.

The 2021 IPCC report[1] also explicitly acknowledges the multiple benefits that climate change adaptation can generate such as improving agricultural productivity, health and well-being, food security, and biodiversity conservation. The IPCC report also affirms the importance of investing in building adaptive capacities and strengthening the resilience of small-scale producers, women, children, low-income households, and indigenous or other minority groups, as these groups are at higher risk of malnutrition, livelihood loss, rising costs and competition over resources as a result of the impacts of climate change.

1 IPCC, 2021: Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [Masson-Delmotte, V., P. Zhai, A. Pirani, S.L. Connors, C. Péan, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M.I. Gomis, M. Huang, K. Leitzell, E. Lonnoy, J.B.R. Matthews, T.K. Maycock, T. Waterfield, O. Yelekçi, R. Yu, and B. Zhou (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, 2391 pp. doi:10.1017/9781009157896.

If the year 2021 set the agenda for IFAD12, it also marked the end of the IFAD11 cycle (2019-2021). As such, CAR 2021 has a somewhat wider scope than previous editions. It does not restrict itself to reviewing the progress and results of the past year, but also situates these results within the larger context of IFAD11 and provides an overview of some of the cumulative results that have been achieved during the last replenishment cycle. Moreover, the CAR 2021 demonstrates that IFAD's climate investments can play a critical role in strengthening the resilience of rural communities and food systems in developing countries not only to the impacts of climate change but to other shocks as well.

Scaling up climate finance

In IFAD11, the Fund committed US$1.2 billion in climate finance across 85 unique operations. This represents 35 per cent of funding approved through its programme of loans and grants, exceeding the 25 per cent target set for the period. The lion's share was directed to adaptation (US$1.1 billion, or about 92 per cent), while US$117 million was categorized as mitigation finance. For IFAD12, the target share of climate-focused finance has been increased to 40 per cent.

In 2021, US$221.6 million was mobilized in supplementary climate finance, bringing the total raised in IFAD11 from the Adaptation Fund (AF), Green Climate Fund (GCF) and Global Environment Facility (GEF) to over US$336.5 million, which far exceeds the target of US$200 million set in IFAD's Strategy and Action Plan on Environment and Climate Change (2019-2025). In 2021, the Executive Board approved the IFAD Climate Facility, paving the way for the Fund to expand the pipeline of projects it develops for financing by the main climate and environment funds, notably the GCF. The latest phase of IFAD's flagship Adaptation for Smallholder Agriculture Programme, ASAP+, which was launched in 2020, successfully mobilized US$66 million toward its overall target of US$500 million.

Delivering results and impact

In terms of delivering results, 92 per cent of completed projects were rated satisfactory for performance on adaptation to climate change (ACC), significantly exceeding the 85 per cent target set for IFAD11. Among the project performance criteria assessed by IFAD's Independent Office of Evaluation ACC is one of the highest rated and is one of only two performance criteria showing statistically significant improvement over the last decade. For IFAD12, the performance target for ACC of completed projects was raised to 90 per cent.

Measuring the attributable impact of its investments on building the resilience of beneficiaries and improving their overall welfare is a priority for IFAD. Rigorous impact assessments on a sample of 24 projects were completed during IFAD11, representing 25 per cent of the total IFAD projects completed during that replenishment period. The assessments showed that IFAD investments have enhanced the resilience of rural communities in many different ways, estimating that the resilience of around 38 million beneficiaries had been increased by at least 20 per cent. These assessments have also generated important evidence-based knowledge on the most effective solutions to strengthen rural communities' resilience to climate change as well as to other shocks and stressors.

For IFAD11 investments subject to GHG assessment, the cumulative negative carbon balance was -164.7 million tonnes of carbon dioxide equivalent (CO_2e), of which 53.7 million tonnes are estimated to be the result of 13 projects approved in 2021.

Finally, in 2021, the updated Social, Environmental and Climate Assessment Procedures (SECAP 2021), including an upgraded risk screening methodology and a new climate change standard, became effective. The IFAD Strategy on Biodiversity 2022-2025 was adopted in 2021, representing an important new instrument to strengthen the Fund's operational focus on biodiversity and further leverage the important synergies between biodiversity, environment, climate change, gender, nutrition and Indigenous Peoples within its country programmes and investments.

JYOTSNA PURI
Associate Vice-President
Strategy and Knowledge Department

©IFAD/Santiago Billy/Factstory

Chapter 1: Roads to resilience: Where IFAD is coming from and where we are going

Key points

- "Recovery, Rebuilding, Resilience" of rural communities in developing countries in a world contending with the impacts of the COVID-19 pandemic and conflict are IFAD's overarching priorities for the IFAD12 period (2022-2025).
- IFAD's climate-focused approach aligns with conversations emerging from the Glasgow Climate Pact of COP26 and the 2022 IPCC that emphasize the multiple benefits of climate change adaptation investments.
- The 2022 IPCC report[2] affirms the importance of investing in building adaptive capacities and strengthening the resilience of small-scale producers, women, children, low-income households, and indigenous or other minority groups, as they are at higher risk of malnutrition, livelihood loss, rising costs and competition over resources due to the impacts of climate change.

The year 2021 was a pivotal year for IFAD. In February, representatives from IFAD Members States came together for the replenishment consultation for IFAD's 12th replenishment (IFAD 12) in order to review the Fund's performance, decide on its future

2 IPCC, 2022: Climate Change 2022: Impacts, Adaptation, and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [H.-O. Pörtner, D.C. Roberts, M. Tignor, E.S. Poloczanska, K. Mintenbeck, A. Alegría, M. Craig, S. Langsdorf, S. Löschke, V. Möller, A. Okem, B. Rama (eds.)]. Cambridge University Press. In Press. Available at: https://www.ipcc.ch/report/ar6/wg2/.

strategic direction and priorities, and replenish its financial resources for the next three-year cycle (2022-2025). The subtitle of the replenishment consultation report, Recovery, Rebuilding, Resilience, indicates the Fund's priorities over the coming three years. IFAD will forge partnerships and mobilize resources to build resilience in rural communities in developing countries and support them in recovering and rebuilding from the impacts of the COVID-19 pandemic and conflict.

The COVID-19 pandemic has made recovery and resilience a global priority. The pandemic has caused significant increases in poverty, undernourishment, and moderate or severe food insecurity. These hardships have been especially severe for impoverished rural communities in developing countries where livelihoods and local economies are tied to small-scale agricultural production. The pandemic has laid bare the weaknesses in food systems and exposed the vulnerabilities of rural communities, small-scale agricultural producers, farm labourers, and workers across food supply chains.

In 2021, along with extreme climate events and economic shocks, conflict continues to create food security emergencies in low-income countries. Conflict or organized violence is driving acute food insecurity in many African countries, as well as in Myanmar and Yemen. And at the time of writing, the start of the conflict between Ukraine and the Russian Federation, two of the world's largest producers and exporters of agricultural commodities, is threatening to deal another massive blow to the global economy and food systems in particular. The conflict has already led to higher food prices and shortages of staple crops in the Near East and North Africa region, and these shocks are rippling toward the world's most vulnerable countries. IFAD President, Gilbert F. Houngbo, has stated that this conflict has the potential to be "a tragedy for the world's poorest people living in rural areas who cannot absorb the price rises of staple foods and farming inputs that will result from disruptions to global trade." In IFAD12, the Fund committed to improving its performance in building resilience in conflict-affected situations and ensuring that at least 25 per cent of its core resources are directed to rural communities in these situations.

IFAD's climate investments play a critical role in the recovery and rebuilding process and in strengthening resilience not only to the impacts of climate change but to other shocks as well. In IFAD11, the Fund committed to ensuring that at least 25 per cent of its financing from its programme of loans and grants (PoLG) would be climate-focused. As detailed in Chapter 2, this target has been surpassed, and for IFAD12, the target for the percentage of climate-focused finance has been increased to 40 per cent. In IFAD11, the Fund also met its commitment to incorporate analyses of countries' nationally determined contributions (NDCs) in formulating country strategies to ensure that IFAD-supported investments meaningfully contribute toward achieving national climate objectives.

Along with mainstreaming climate into its portfolio, in IFAD11, IFAD also introduced three other mainstreaming themes: gender, nutrition and youth. This integrated approach strengthens and accelerates IFAD's contribution to achieving the interconnected Sustainable Development Goals (SDGs) and the pledge to leave no one behind. At the 26th Conference of the Parties (COP26) of the UNFCCC, IFAD worked to raise awareness through over 30 pavilion events about the opportunities for climate investments in small-scale farming in developing countries to support a broad range of development objectives related to gender equity, nutrition, youth employment, Indigenous Peoples and the disabled.[3] The

3 For more information on IFAD at COP26 go to: https://www.ifad.org/en/web/events/cop26.

importance of addressing climate action in a socially inclusive manner was also amply recognized in the Glasgow Climate Pact that emerged out of COP26 and in the IPCC's Sixth Assessment Report.

Conclusion

With the worst of the COVID-19 pandemic hopefully behind us, we now need to recover, rebuild and strengthen resilience to future shocks of a climatic and non-climatic nature. In IFAD12, the Fund is committed to scaling up its climate investments to advance climate change adaptation and resilience building while catalysing inclusive and sustainable transformations in rural areas of developing countries, particularly in fragile and conflict affected areas. At the heart of IFAD's strategy is the idea that climate investment can bring multiple benefits to the millions of impoverished and food-insecure rural people who are the most vulnerable to the impacts of climate change. Evidence in the Glasgow Climate Pact and the IPCC Sixth Assessment Report support this idea and align IFAD's climate action with global efforts to secure our future against the risks associated with climate change.

©IFAD/Isaiah Muthui

Chapter 2: Mainstreaming climate and environment into IFAD's portfolio

Key points

- All 60 country strategies approved during IFAD11 incorporate a country NDC analysis.
- In 2021, IFAD launched its upgraded Social, Environmental and Climate Assessment Procedures (SECAP 2021), enhancing the identification and management of risks, particularly relating to biodiversity conservation and climate change, and strengthening integration of mainstreaming priorities into all new IFAD projects.
- The IFAD Strategy on Biodiversity 2022-2025, adopted in December 2021, represents an important new instrument for mainstreaming biodiversity and climate-focused activities into IFAD's investment portfolio. As part of agreed actions the strategy committed to developing a new core IFAD indicator on biodiversity which will be presented at the CBD COP15.

2.1 Mainstreaming climate change into IFAD country strategies

In IFAD11, as part of its work to mainstream climate into its entire investment portfolio, IFAD made a commitment to incorporate an analysis of a country's NDC as part of the design of country strategic opportunities programme (COSOP) or country strategy note (CSN).[4]

4 COSOPs, which usually cover a period of six years, are concise strategic documents that identify the key objectives and development results that IFAD intends to pursue in a country. CSNs have a much shorter duration than COSOPs (up to two years) and are prepared as a transitional document in exceptional circumstances where there are some unknowns that make the formulation of a longer-term strategy difficult. For example, there may be uncertainty about the scope of IFAD's engagement in the country, an absence of a medium-term development strategy to frame IFAD's support or instability within the country (e.g. upcoming elections, social crisis, natural disaster or conflict).

Over the course of IFAD11, a total of 60 country strategies were approved (35 COSOPs and 25 CSNs) (Figure 1). Figure 2 shows the regional distribution of these strategies, with West and Central Africa (WCA) having approved the greatest number of country strategies (18), most of which were COSOPs (15). This increase in the number of COSOPs, which are longer-term strategies compared to CSNs which have a shorter-term outlook due to rapidly changing country contexts, reflects the growing maturity of IFAD's portfolio in WCA. The region with the next highest number of country strategies (16) was Near East and North Africa (NEN). In this region, there were more CSNs (11) than COSOPs, indicating IFAD's expanding engagement in fragile contexts, where CSNs serve to initiate a transition towards a longer-term, shared strategic vision.

Figure 1. IFAD11 country strategies by approval year

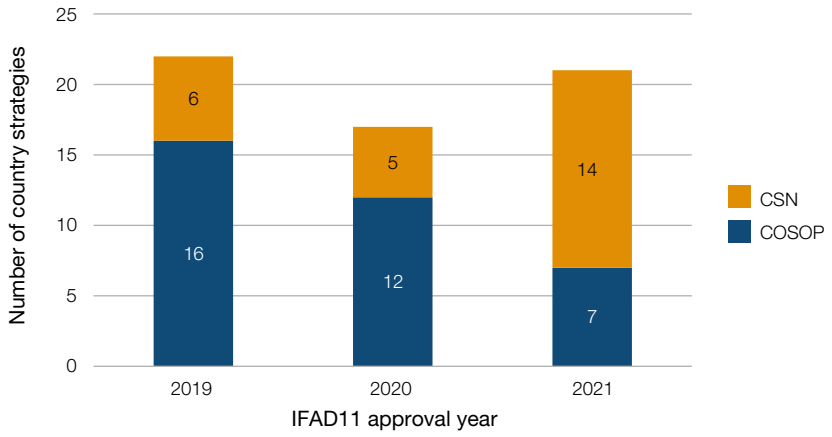
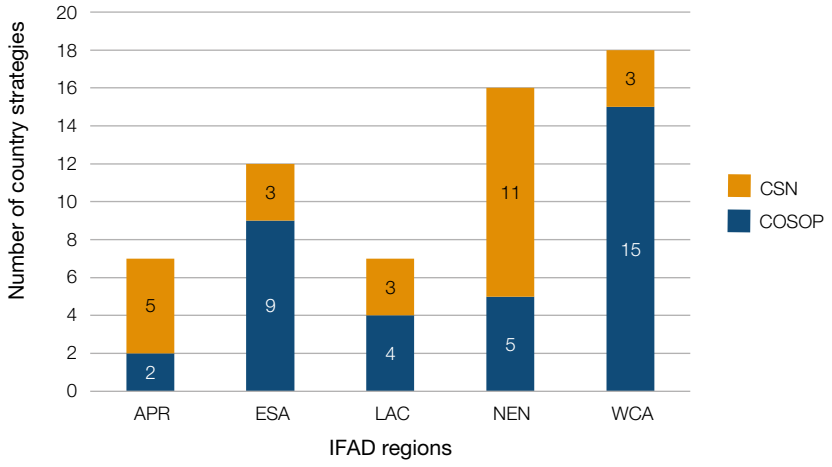


Figure 2. IFAD11 country strategies by IFAD region



In these country strategies, the mandatory NDC analyses set the course for IFAD investments that contribute to the country's efforts to meet its national climate commitments. Two examples drawing on the COSOPs for Guatemala and Madagascar prepared in 2021 illustrate how projects are designed to reflect the NDC analysis that informs country strategies.

Guatemala - Resilient Agrifood Value Chains Project

Climate and weather events have a profound impact in Guatemala, and its poorer communities are particularly vulnerable. Climatic changes observed since the 1970s include increases in temperatures, with longer and warmer dry periods and a more irregular start of the rainy season; more intense rain over shorter periods of time; and greater frequency and intensity of El Niño/La Niña cycles, which has increased the frequency of severe droughts. By 2050, average temperatures are projected to increase by between 2.5° and 4°C, which would likely expand the semi-arid regions in the country.

Guatemala's new COSOP with IFAD (2022-2027) maps out climate risks, NDC priority sectors and strategic directions to guide IFAD's upcoming investments. These include adaptation priorities to better manage the hydrometeorological risks in the agricultural and forestry sector. This will be done by implementing integrated risk management strategies that include providing financial services (e.g. insurance, credit and savings) and increasing the adaptive capacity of producers and their production systems.

Against this backdrop, responding to COVID-19, the Modern and Resilient Agrifood Value Chains Project (GUATEINNOVA), initiated by the World Bank and co-financed by IFAD, has been designed to build broad-based resilience to a range of stressors, including climate change and COVID-19. GUATEINNOVA sets out to reduce food losses, increase the adoption of climate-resilient technologies, and support the COVID-19 emergency response for beneficiaries in selected value chains. A total of US$8.25 million or 73 per cent of IFAD's investment, may be classified as adaptation finance.

GUATEINNOVA targets post-harvest technologies and practices in key value chains to promote a more efficient, climate-smart and resilient agri-food industry. The project supports the adoption of on-farm and on-site technologies and practices to extend the shelf life of food. In addition to delivering efficiency and sustainability gains along the value chain, GUATEINNOVA will improve the beneficiaries' access to domestic and international markets and increase their bargaining power. The project will also improve year-round access to diversified foods at affordable prices in Guatemala, positively impacting nutrition.

Madagascar - Inclusive Agricultural Value Chains Development Programme

Each year, three to five cyclones strike Madagascar from the northeast and move towards the west. In the south, the country experiences droughts of varying intensity. By 2050, temperatures are projected to rise from 1° C to 2° C, and rainfall is expected to decrease by 8 per cent on average. The number and intensity of extreme climate events are also projected to increase.

Madagascar's new COSOP (2022-2026) reflects the National Climate Change Strategy (2012-2025) as well as its NDC. Climate-resilient agriculture and water resource management have been accorded priority in the COSOP. Accordingly, in 2021, IFAD has augmented the work of the ongoing Inclusive Agricultural Value Chains Development

Programme (DEFIS) by providing substantial additional financing: US$20.9 million. Twenty-five per cent of this financing was programmed as adaptation finance.

In line with national priorities, IFAD adaptation finance in DEFIS is being used to climate-proof water intake structures and improve the technical capacities of water user associations for the maintenance of these structures. The programme is also supporting the production and use of improved and quality plant material (seeds, cuttings, plants), which will allow producers to increase their yields and adapt their crop calendars to changing agroecological conditions. DEFIS also invests in the climate-proofing of rural roads in order to improve market access even when the weather is severe.

SECAP 2021 (Volumes 1 and 2) is available at:
https://www.ifad.org/en/-/social-environmental-and-climate-assessment-procedures

2.2 Social, Environmental and Climate Assessment Procedures

Mainstreaming climate change into project design requires an assessment and classification of climate risk, along with social and environmental risk. Since 2016, all IFAD projects undergo climate risk screening as part of IFAD Social, Environmental and Climate Assessment Procedures (SECAP). In 2021, the updated Social, Environmental and Climate Assessment Procedures (SECAP 2021) were published in two volumes. It should be noted that in line with state-of-the-art practice, at IFAD, we see SECAP as not just a safeguard tool but as a tool to enhance the quality of project design, so that social, environmental and climate considerations are integrated from the outset of project design and not included as an add-on. This enables IFAD's investments to be socially, climatically and environmentally positive, and not just focused on risk mitigation.

SECAP 2021 capacity building

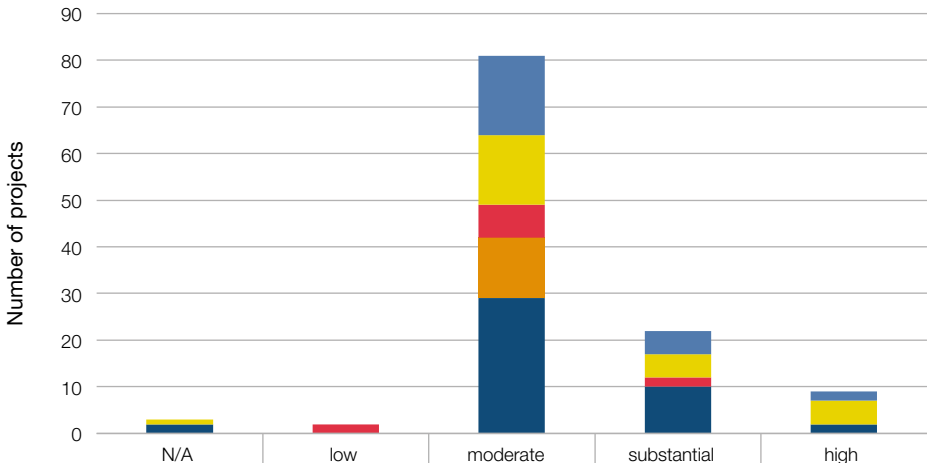
SECAP 2021 can only be effective at reducing climate risk in IFAD's investment portfolio if borrowers/recipients/partners and IFAD project delivery teams are familiar with the process and can apply the procedures appropriately. During 2021, training and guidance were provided to staff and borrowers to build capacities in SECAP implementation. Of particular importance was a series of SECAP e-training modules that have been made available to IFAD staff. Completing this e-training is now mandatory for all IFAD project delivery teams. In addition, in 2021, IFAD launched SUSTAIN, a programme aimed at strengthening the capacities of national ministries engaged in rural development to meet environmental, social and climate standards (ESC) and contribute to equitable, socially inclusive, and environmentally sustainable rural transformation. SUSTAIN will provide training and certification to key stakeholders across some 60 countries and goes beyond designing and delivering training: it is a participatory initiative that connects people to foster exchange, knowledge sharing, and learning.

Risk ratings in IFAD11

SECAP 2021 introduced a four-tier risk categorization (low, moderate, substantial and high risk). Projects approved prior to the entry into force of SECAP 2021 were mapped to these four tiers, to permit comparison over time. Figures 3 and 4 illustrate the distribution of SECAP risk categories in IFAD operations that have received funds from the IFAD11 PoLG. Overall, 117 investments were approved, across 109 unique projects.[5] In terms of environmental and social risk, Asia and the Pacific (APR), East and Southern Africa (ESA) and West and Central Africa (WCA) had high-risk investments during IFAD11. Only Latin America and the Caribbean (LAC) had low-risk investments (2). The vast majority of investments were classified as moderate for environmental and social risk. Identified risks and associated mitigation plans are captured in Environmental, Social and Climate Management Plans, which are required for every project, and implementation of which is monitored as part of the annual project supervision process. With regard to climate risk, no investments were mapped to SECAP 2021's new Substantial Risk category, and the distribution (overall and regional) was fairly even across the Moderate Risk and High Risk categories. Only LAC and WCA had one low climate risk investment each. It is important to note that investments flagged as not applicable (N/A) represent additional financing to projects that were originally approved prior to 2015, before environmental and social action plan (ESAP) and SECAP requirements were mandatory.

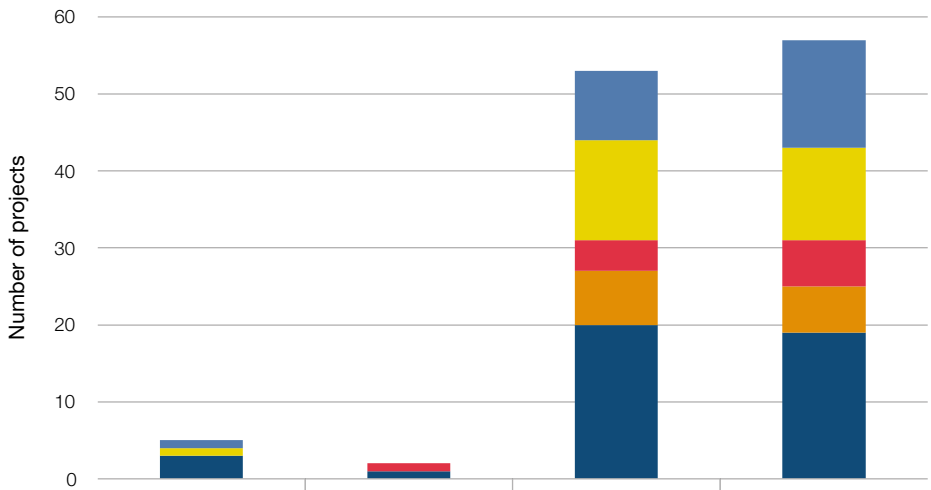
5 Eight projects appear twice, as they drew on IFAD11 PoLG funds twice, in the form of additional financing. As no new geographies or significantly different activities were implicated, these projects all maintained their original SECAP ratings.

Figure 3. Environmental and social risk ratings



	N/A	low	moderate	substantial	high
APR			17	5	2
ESA	1		15	5	5
LAC		2	7	2	
NEN			13		
WCA	2		29	10	2

Figure 4. Climate risk ratings



	N/A	low	moderate	high
APR	1		9	14
ESA	1		13	12
LAC		1	4	6
NEN			7	6
WCA	3	1	20	19

2.3 The IFAD strategy on biodiversity

In 2021, the approval of IFAD's new Biodiversity Strategy (2022-2025) marked another significant step in mainstreaming climate change into IFAD's investments and activities and creating greater policy alignment regarding all the elements of sustainable development that need to be addressed when building resilience in rural areas.

The Biodiversity Strategy, which was requested in the IFAD12 consultation, builds on and complements the IFAD Strategy and Action Plan on Environment and Climate Change 2019-2025 and is aligned with the IFAD Strategic Framework 2016-2025. The strategy will also complement the recently updated SECAP, which includes biodiversity conservation as the first of nine mandatory operational social, environmental and climate standards. Other development finance institutions (e.g. KfW Development Bank, Inter-American Development Bank and Asian Development Bank) have also recognized the value of integrating biodiversity into their programmes of work and operations.

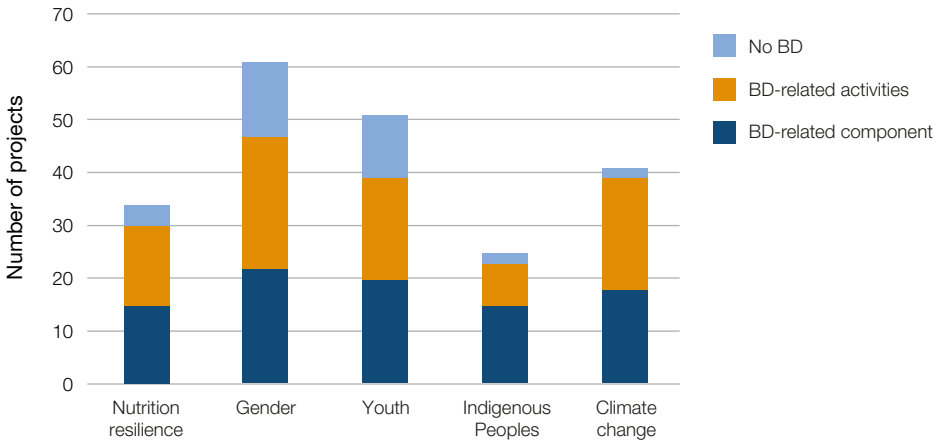
In 2022, the core indicators of the Biodiversity Strategy will be aligned with those used in the Global Biodiversity Framework, which is expected to be adopted at the second part of COP15 in December 2022. Updates on the implementation of the Biodiversity Strategy will be presented in future CARs, as well as the Report on IFAD's Development Effectiveness (RIDE) and the new annual report on mainstreaming themes which will be presented to the Executive Board starting in 2023. After 2025, the Biodiversity Strategy and the Strategy and Action Plan on Environment and Climate Change will be consolidated into a single strategy document.

Biodiversity and agroecology stocktakes

The Biodiversity Strategy was also developed based partly on the findings of two stocktaking exercises of agroecology and biodiversity in IFAD's portfolio.[6] The results of the biodiversity stocktake confirmed the significant connections between biodiversity and climate change and IFAD's other mainstreaming themes, as well as Indigenous Peoples (see figure 5). The biodiversity stocktake found biodiversity relevant interventions were supported in nearly all the projects that are climate sensitive (95 per cent) and involve Indigenous Peoples (92 per cent) and promote nutrition resilience (88 per cent). Biodiversity-related interventions feature in a smaller but still significant share of gender projects (77 per cent) and youth-sensitive projects (77 per cent). Findings from the agroecology stocktake showed that 48 per cent of the projects that supported agroecological approaches increased the diversity of crops and animals used in integrated farming systems.

6 The stocktake report on agroecology in IFAD operations: An integrated approach to sustainable food systems is available at: www.ifad.org/en/web/knowledge/-/stock-take-report-on-agroecology.

Figure 5. Link between biodiversity, mainstreaming themes and Indigenous Peoples



One of the key challenges that was identified in the stocktake was the dependence of biodiversity-related interventions on grant funding from sources such as the Global Environment Facility (GEF) and Adaptation for Smallholder Agriculture Programme (ASAP). When this additional funding is not available, biodiversity-related interventions are often not prioritized. This dependence presents a challenge for aligning and integrating these activities into projects financed through IFAD's PoLG.

Climate change, biodiversity, and nature-based solutions

Climate change and biodiversity loss are both linked to the unsustainable management of natural resources, particularly in relation to agriculture and food systems. Conserving and sustainably using biodiversity as a component of nature-based solutions (NbS) to address crises caused by climate change and other shocks can deliver multiple benefits in terms of resilience, agriculture production, rural employment and nutrition. NbS that help to manage and restore natural and modified ecosystems can provide over one-third of the cost-effective climate mitigation needed between now and 2030 to limit warming to less than 2° C.[7] NbS have been deployed in several IFAD projects funded through ASAP and GEF (see box 1).

7 UN Environment Management Group, 2020. Supporting The Global Biodiversity Agenda - a United Nations System Commitment for Action to assist Member States delivering on the post-2020 global biodiversity framework.

Box 1. ASAP Technical Series: Nature-based Solutions

In 2021, the IFAD Nature-based Solutions (NbS) Report was released as part of the ASAP Technical Series. The report presented key results and lessons learned to date from the use of NbS in IFAD's ASAP portfolio. The study focused on seven case studies from Ethiopia, The Gambia, Lao People's Democratic Republic, Nicaragua, Niger, Tajikistan and Sudan that provide a representative overview of the diversity of NbS implemented under ASAP. The benefits of NbS were assessed based on five themes: climate change adaptation and disaster risk reduction; climate change mitigation potential; provision of non-carbon ecosystem services; food security and income generation; and social benefits.

The findings of the study indicate that the active involvement of local communities and authorities is critical to the success of NbS. NbS that were associated with community-managed, climate-sensitive natural resources, such as those presented in drylands, could be scaled up and applied to wider environmental programmes (e.g. The Great Green Wall). The promotion of agrobiodiversity as a component of NbS can contribute to diversification of resources. NbS that promote biodiversity in agricultural ecosystems can also provide rural households with timber, firewood, food, bio-pesticides and fertilizers. They can also generate income and create job opportunities for vulnerable women and young people. In some cases, NbS may require a long time to develop, as they can include multiple and complex activities (e.g. mobilizing communities or strengthening farmers' knowledge). Labour-intensive NbS (e.g. digging trenches) often require significant external financial resources and specific approaches (e.g. cash-for-work schemes).

The Nature-based Solutions report is available at: https://www.ifad.org/en/web/knowledge/-/asap-technical-series-nature-based-solutions

Conclusion

IFAD continues to work with countries to ensure its investment strategies align with their climate action ambitions expressed in their NDCs. This not only serves to mainstream climate into IFAD's overall investment portfolio but also ensures that IFAD supports UNFCCC processes at the national and global level. IFAD constantly improves its SECAP to ensure that social, environmental and climate risks are effectively assessed and managed across the project portfolio. The new IFAD Strategy on Biodiversity marks another step in achieving a broad strategic alignment that can optimize the impact of IFAD's investments in climate change and the other mainstreaming themes of gender, youth and nutrition.

©IFAD/Purnima Shrestha

Chapter 3: Financing climate action

Key points

- During IFAD11 (2019-2021), the Fund committed US$1.2 billion in climate finance, i.e. 35 per cent of the approved PoLG, exceeding the 25 per cent target that was set for the period. For IFAD12, the climate finance target has been raised to 40 per cent.
- ASAP+, launched in 2020, mobilized US$66 million toward its overall target of US$500 million.
- In IFAD11, over US$336.5 million was mobilized from global climate and environment funds, exceeding the target of US$200 million set in the IFAD Strategy and Action Plan on Environment and Climate Change (2019-2025).[8]
- In 2021, the IFAD Executive Board approved two grants (US$1.2 million and US$10 million) to expand the pipeline of projects developed by IFAD for financing by the main climate and environment funds, notably the GCF.

3.1 IFAD programme of loans and grants

IFAD undertook to ensure that at least 25 per cent of the projected IFAD11 PoLG of US$3.5 billion (i.e. US$875 million) would be climate focused. The target was surpassed: IFAD11 PoLG approvals reached US$1.2 billion in climate finance across 85 unique operations.[9] This total represents 35 per cent of the approved IFAD11 PoLG (figure 6). The vast majority of IFAD's climate finance was directed to adaptation (US$1.1 billion, or about 92 per cent), while US$117 million was categorized as mitigation finance (figure 7; see box 2 for a note on climate finance tracking methodologies).

8 The IFAD *Strategy and Action Plan on Environment and Climate Change 2019-2025* is avalable at: www.ifad.org/en/-/ifad-strategy-and-action-plan-on-environment-and-climate-change-2019-2025.

9 Of these 85 unique operations, 77 were new projects while 12 were additional financings. Some projects received one or more additional financings during the course of IFAD11, which is why the count of unique operations (85) is lower than the total amount of investments validated for climate finance (89).

Figure 6. Share of climate finance in IFAD11 PoLG

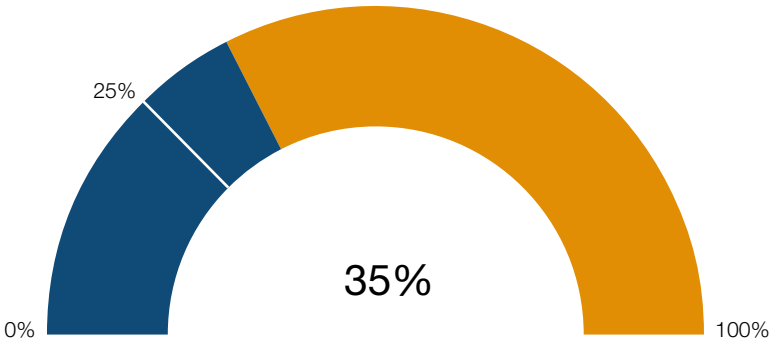
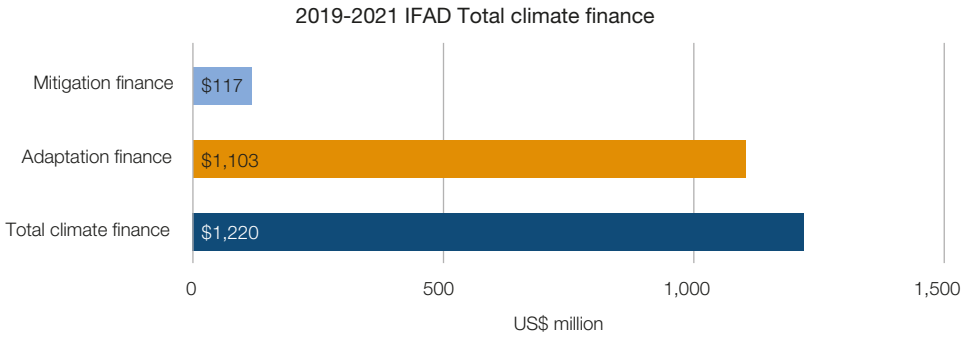


Figure 7. IFAD11 climate finance programming



Box 2. Note on climate finance tracking methodologies

IFAD uses the multilateral development bank (MDB) methodologies for tracking climate change adaptation and mitigation finance.[10] IFAD is actively involved in the MDB working groups on adaptation and mitigation finance tracking, ensuring consistency in how the methodologies are applied across institutions and providing technical inputs for the agricultural sectors. Starting in IFAD12, IFAD will adopt the 2021 update of the mitigation finance tracking methodology.[11]

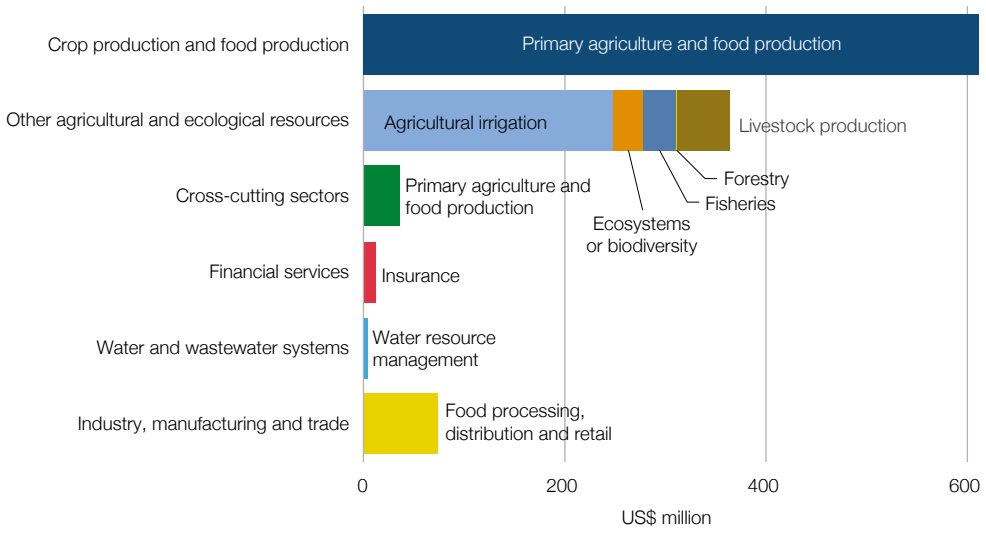
As required by the MDB methodologies, the Fund's climate finance is calculated on an ex ante (forecast rather than results based) basis at the project design stage, based on the budgets of project components, subcomponents and activities. IFAD also monitors climate and environment results achieved through dedicated environment and climate indicators during implementation, using resilience scorecard methodologies and impact assessments.

10 For details on IFAD's use of the MDB methodologies, see chapter 5 of CAR 2019 at: www.ifad.org/en/web/latest/story/asset/41461856. For more information on the MDBs and climate finance, consult the 2020 Joint Report on Multilateral Development Banks' Climate Finance at: www.isdb.org/publications/2020-joint-report-on-multilateral-development-banks-climate-finance.

11 The Common Principles for Climate Mitigation Finance Tracking Version 3–18 October 2021 are available at: www.isdb.org/climate-change/publications/common-principles-for-climate-mitigation-finance-tracking.

Figure 8 presents a breakdown of IFAD's US$1.1 billion in adaptation investments by MDB adaptation sectors and corresponding subsectors.[12] More than half of adaptation investments (US$611.3 million) support crop and food production. The next largest share is directed to other agricultural and ecological resources (US$364.4 million). Smaller portions are invested in industry, manufacturing, and trade (US$74.1 million), cross-cutting sectors (US$36.3 million), financial services (US$12.8 million) and water and wastewater systems (US$4.2 million).

Figure 8. IFAD climate change adaptation finance by MDB sectors and subsectors

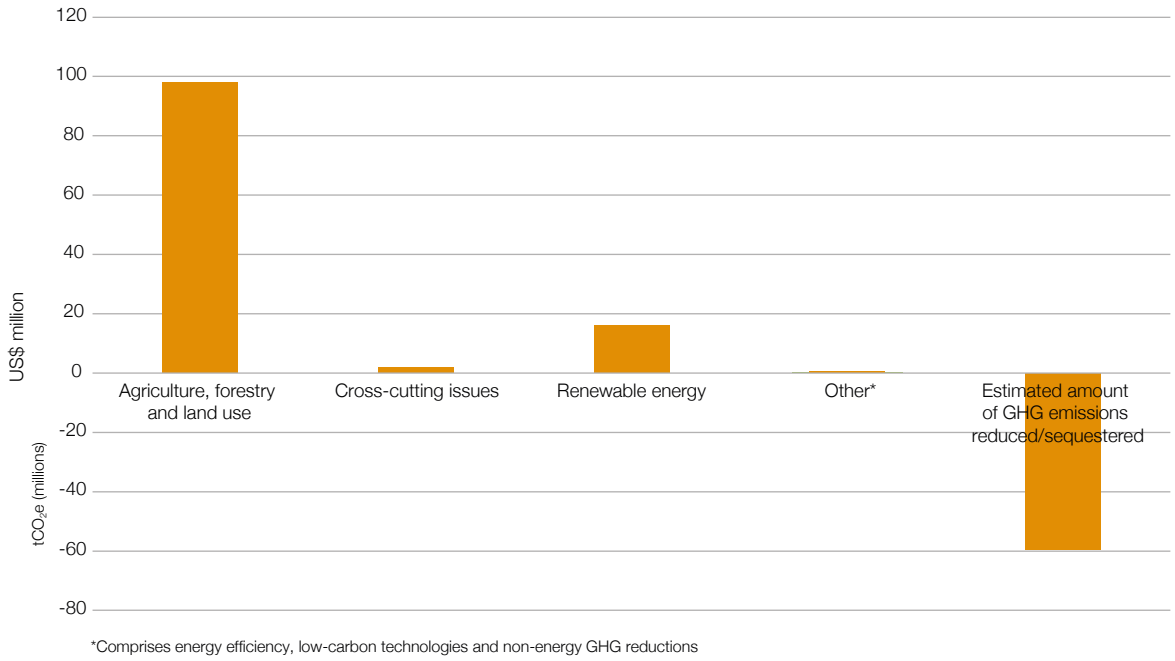


The US$117 million that IFAD11 programmed in mitigation finance was directed to fifteen projects.[13] Figure 9 presents IFAD's mitigation finance according to the categories and subcategories of the MDB methodology for tracking climate change mitigation finance.

12 For the purpose of preparing these figures, MDB adaptation sectors and subsectors are mapped at project level (not at activity level, as done for mitigation finance).

13 IFAD only counts mitigation finance in projects that include an ex ante greenhouse gas (GHG) assessment based on a recognized methodology (e.g. EX-ACT or GLEAM-i) establishing the emissions reduction potential of the investment. Any adaptation investment with the potential for mitigation co-benefits that remain unquantified is counted as adaptation finance but is flagged as having potential mitigation co-benefits. During implementation, a project may wish to pursue and quantify these mitigation co-benefits.

Figure 9. IFAD climate change mitigation finance by MDB category and subcategory



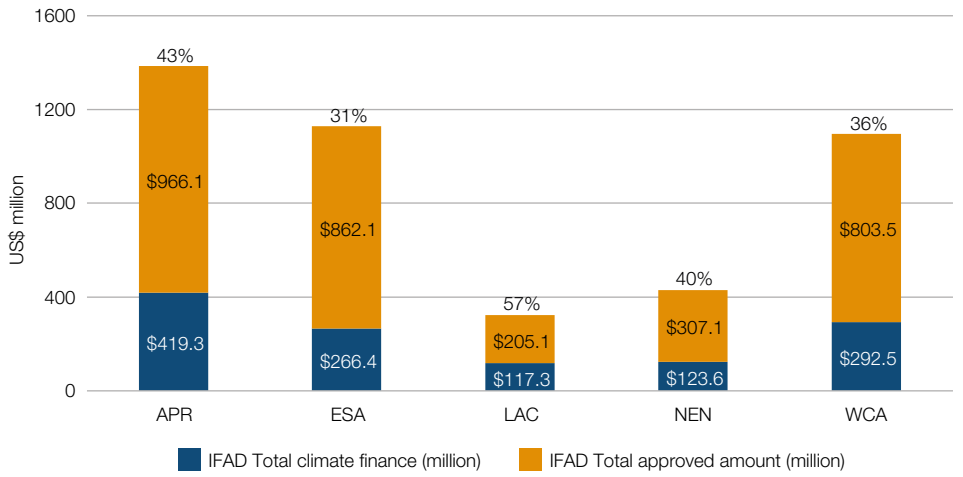
*Comprises energy efficiency, low-carbon technologies and non-energy GHG reductions

Mitigation investments are mapped at an activity level against the MDB's positive list of eligible mitigation activities. The bulk of IFAD's mitigation investments flowed to the agriculture, forestry, and other land use (AFOLU) sector (US$98.2 million). IFAD's second largest mitigation investment area was renewable energy (US$16.1 million). Support for national, subnational and local policies that promote mitigation action amounted to US$1.9 million. For projects with IFAD11 mitigation finance, the total estimated GHG reduction potential amounts to -59.6 million tonnes of GHG measured in CO_2e over 20 years, based on their aggregated EX-ACT and GLEAM-i analyses.

Figure 10 shows that most climate finance (US$419.3 million) has been programmed in the Asia and the Pacific Region (APR) followed by West and Central Africa (WCA) (US$292.5 million), East and Southern Africa (ESA) (US$266.4 million), Near East, North Africa and Europe (NEN) (US$123.6 million) and Latin America and the Caribbean (LAC) (US$117.3 million). LAC's lower share is due to the comparatively lower volume of finance approved overall during IFAD11. However, climate finance investments represent a notable 57 per cent of the total approved in LAC, surpassing even APR's share invested in climate finance (43 per cent). Although WCA is the region where the most projects have been approved to date (31 investments overall[14]), APR has the largest amount of climate finance per project (US$23.2 million each across 18 projects approved).

14 Including 28 unique projects and 3 additional financings entering IFAD11 projects already screened for climate finance.

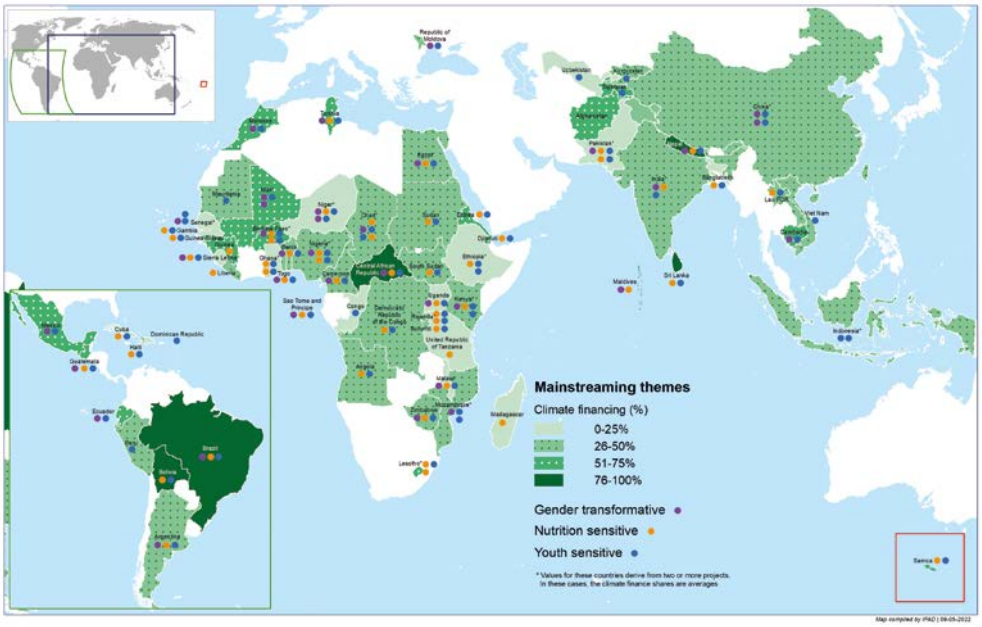
Figure 10. IFAD total climate finance by region vs total volume of IFAD finance approved[15]



The benefits of climate financing directed to smallholders extend beyond climate change mitigation and adaptation. The activities and projects made possible through climate finance also support socially inclusive sustainable rural development that can meet the needs of women, young people and poor communities facing food and nutrition insecurity. IFAD climate investments also support the Fund's social inclusion themes (gender, youth and nutrition). Figure 11 maps the allocation of IFAD11 climate finance and the social inclusion themes it contributes toward.

15 This graphic reflects the full volume of IFAD11 investments in the investment projects (that were subject to IFAD mainstreaming theme validation and climate finance tracking 89 investments between 2019-2021 across 85 unique projects). To note, the finding that 35 per cent of IFAD11 PoLG was validated as climate finance overall also factors in other PoLG resources, not reflected here, including emergency operations, RPSF resources, the IFAD grants programme, amongst others. Not all of these resources are subject to mainstreaming validation/climate finance tracking, or attributable to a particular region.

Figure 11. Climate finance programming and social inclusion themes in 2019-2021[16]



3.2 ASAP Trust Fund

The first significant push for climate mainstreaming at IFAD began in IFAD9. Intertwined with the pioneering Adaptation for Smallholder Agriculture Programme (ASAP), which launched in 2012, IFAD established itself as a leader in climate change adaptation for small-scale agricultural producers. ASAP, which received the UNFCCC Momentum for Change Lighthouse Activity award for innovative financing in 2013, has always followed a "multiple benefits approach" in its business model. ASAP is financed through its own trust fund that is independent of the resources provided through IFAD's replenishment. Chapter 4 reviews the performance and results of the ASAP programme in 2021.

In 2020, the third and "enhanced" phase of ASAP, ASAP+, was launched, setting a resource mobilization target of US$500 million with a view to substantially scale up climate finance for small-scale producers. Its "enhancements" focus on addressing the climate change drivers of food insecurity by building the resilience of the most marginalized groups to a multitude of shocks and stressors. To date, ASAP+ has mobilized US$66 million.

The first project in the ASAP+ portfolio was approved in March 2022. This project totalling US$37 million (of which US$19 million comes from ASAP+) will concentrate in three regions in the state of Maranhão in Brazil. A pipeline of six more ASAP+ projects is currently under development:

- Burkina Faso - Strengthening Smallholder Resilience to Climate Change
- Niger - Family Farming Development Programme (ProDAF)
- Somalia - Adaptive Agriculture and Rangeland Rehabilitation (A2R2)
- Yemen - Rural Livelihood Development Project

16 Shading in figure 5 indicates that at least one project was approved in this country in 2019-2021. Asterisks denote countries where two or more projects have been approved and results aggregated.

- Ethiopia - Programme for Participatory Agriculture and Climate Transformation (PACT)
- Malawi - Programme for Rural Irrigation Development (PRIDE).

3.3 Supplementary environment and climate finance

Green Climate Fund

Since obtaining accreditation with the Green Climate Fund (GCF) in 2016, IFAD has been steadily increasing the size of the projects it is implementing with GCF financing. IFAD's first two GCF-financed projects in Belize and Niger approved in 2019 were classified as small. In 2020, IFAD progressed to medium-sized projects with the approval of the Planting Climate Resilience in Rural Communities in the Northeast (PCRP) in Brazil. In 2021, approval was given for two more medium-sized regional projects in Africa.[17] As the size of project and the amount of GCF financing has increased, so too has the amount of co-financing for these projects. IFAD's solid track record with the GCF enabled the Fund to obtain a GCF accreditation upgrade in 2021, which opens the doors to larger projects in the future (see box 3).

Table 1 presents a summary of the six projects that were approved to date. There are currently 10 well-developed projects in the pipeline that will be submitted for GCF approval during the next replenishment cycle.

Table 1. GCF project approvals to date

2022	
Inclusive Green Financing Initiative (IGREENFIN I): Greening Agricultural Banks and the Financial Sector to Foster Climate-Resilient, Low-Emission Smallholder Agriculture in the Great Green Wall (GGW) countries - Phase I	
IGREENFIN I is cross-cutting programme that give local farmers, farmers' organizations, cooperatives and micro and small-sized enterprises better access to credit and technical assistance. This support will help them implement climate-resilient and low-emission agriculture and agroforestry. IGREENFIN I, which covers 11 countries in the Great Green Wall (Burkina Faso, Chad, Djibouti, Eritrea, Ethiopia, Mali, Mauritania, Niger, Nigeria, Senegal and Sudan) as well as Côte d'Ivoire and Ghana, will increase the coherence and complementarity of climate actions in Africa.	
Direct beneficiaries: 378 600	Indirect beneficiaries: 2 494 000
Negative carbon balance: 5.6 million tonnes of CO_2e	
Total GCF financing: **US$108 992 890**	Total co-financing: **US$76 269 822**
GCF project web page: www.greenclimate.fund/project/fp183	
2021	
The Africa Integrated Climate Risk Management Programme: Building the resilience of smallholder farmers to climate change impacts in 7 Sahelian Countries of the Great Green Wall (GGW)	
The programme will strengthen the resilience and adaptive capacities of small-scale farmers and rural communities in seven least developed countries in the Sahel: Burkina Faso, Chad, The Gambia, Mali, Mauritania, Niger and Senegal. It will provide capacity building and institutional development on integrated climate risks management. This includes reducing obstacles to access agricultural insurance for governments and smallholders to enhance resilience building and strengthening climate weather information services.	

17 Information on IFAD-implemented GCF-financed projects can be found on the GFC web page: www.greenclimate.fund/ae/ifad.

Table 1. *continued*

Direct beneficiaries: 817 922	Indirect beneficiaries: 5 332 754
Negative carbon balance: 21.4 million tonnes of CO_2e	
Total GCF financing: **US$82 849 900**	Total co-financing: **US$60 477 000**
GCF project web page: www.greenclimate.fund/project/fp162	
2020	
Planting Climate Resilience in Rural Communities of the Northeast (PCRP)	
This project will build the resilience of the most vulnerable farmers in Northeast Brazil by working with family farmers to shift their production to low-emission and climate-resilient agriculture. The project also serves to increase access to water for agricultural production through solar irrigation and supports women, youth and traditional communities to scale up tested adaptation and mitigation measures in their agricultural activities.	
Direct beneficiaries: 1 000 000	Indirect beneficiaries: 1 500 000
Negative carbon balance: 11.3 million tonnes of CO_2e	
Total GCF financing: **US$99 500 000**	Total co-financing: **US$103 000 000**
GCF project web page: www.greenclimate.fund/project/fp143 IFAD project web page: www.ifad.org/en/web/operations/-/project/2000002253	
Climate proofing food production investments in Imbo and Moso basins in the Republic of Burundi	
The project's primary objective is to improve farmers' resilience to climate change in the upper, middle and lower Imbo and Moso catchments and increase agricultural productivity and food security by promoting the adoption of better agroecosystem management practices to conserve soil and water resources.	
Direct beneficiaries: 240 000	Indirect beneficiaries: 333 540
Total GCF financing: **US$9 994 500**	Total co-financing: **US$21 727 000**
GCF project web page: www.greenclimate.fund/project/sap017	
2019	
Inclusive Green Financing for Climate Resilient and Low Emission Smallholder Agriculture - Niger	
The project provides incentives for private sector participation by engaging with commercial banks and microfinance institutions. It provides financial support to small-scale farmers by increasing access to credit along with technical assistance and capacity building.	
Direct beneficiaries: 25 000	Indirect beneficiaries: 150 000
Negative carbon balance: 1.6 million tonnes of CO_2e	
Total GCF financing: **US$8 872 651**	Total co-financing: **US$3 105 427**
GCF project web page: www.greenclimate.fund/project/sap012	
Resilient Rural Belize (Be-Resilient)	
The project is working to climate-proof selected value chains (six vegetables, one fruit and bee keeping) of smallholders to improve their economic stability and resilience. The project also increases their access to markets by rehabilitating critical infrastructure.	
Direct beneficiaries: 30 000	Indirect beneficiaries: 95 296
Total GCF financing: **US$8 000 000**	Total co-financing: **US$12 002 898**
GCF project web page: www.greenclimate.fund/project/fp101	

Box 3. Accreditation upgrade with the GCF

In September 2021, the GCF granted IFAD's request for an upgrade in its accreditation type. The GCF assessment review found that IFAD, which first became accredited to the GCF in 2016, had met all GCF requirements with regards to fiduciary standards, and environmental and social safeguards.

When IFAD was first accredited to the GCF, the maximum total projected costs at the time of application (irrespective of the portion that is funded by the GCF) was set at above US$50 million and up to and including US$250 million for an individual project or an activity within a programme (medium size). With the upgrade, the total projected costs at the time of the application can now be greater than US$250 million (large size). This amount is much greater than the typical small and grant-focused adaptation-specific resources that have so far been offered by other donors.

Also, IFAD's maximum environmental and social risk category has been upgraded from category B (medium risk) to category A (high risk), which includes "activities with potential significant adverse environmental and/or social risks and/or impacts that are diverse, irreversible, or unprecedented."

Strengthening IFAD's capacity to increase climate finance dedicated to small-scale agriculture and rural communities

In 2021, IFAD's Executive Board approved two grants to enhance the capacity to develop climate-focused projects, primarily to access financing from the GCF. A grant of US$1.2 million was used to cover the financing gap for the ongoing project designs submitted to the GCF Board in 2021 and 2022. With this grant, it was possible to finalize the concept note for phase one of the multi-country Inclusive Green Financing Initiative (IGREENFIN-1) and prepare the funding proposal, which was approved by the GCF Board in March 2022. The grant also supported the preparation and submission of the concept note for the second phase of IGREENFIN. The funding proposal for IGREENFIN-2 will be presented to the GCF Board in October 2022. It was also used to prepare the funding proposal for the Community-based Agricultural Support Project 'plus' (CASP+) in Tajikistan, which was also approved. The preparation and submission of concept notes for projects in Mexico and Viet Nam were also made possible thanks to this funding; the funding proposals for these projects will be presented to the GCF Board for approval in 2023.

A larger grant of US$10 million from the IFAD11 regular grants programme was approved in December 2021 to support the elaboration of GCF projects from 2022 to 2027, from both the GCF's public sector window and its Private Sector Facility.

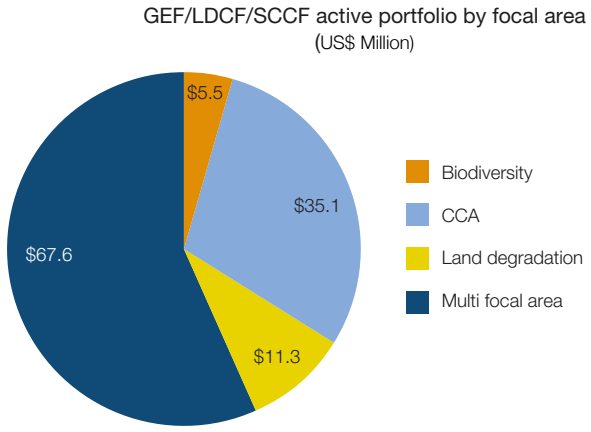
Global Environment Facility

By the end of IFAD11, IFAD was implementing 16 GEF-financed projects in 15 countries, including one regional project, for a total value of US$119.54 million in grants.[18] IFAD-GEF projects that address multiple focal areas receive the largest share of funding (US$67.6 million), followed by projects with a climate adaptation focus (US$35.1 million).[19] The land degradation, biodiversity focal areas receive smaller shares (see figure 12). The climate change mitigation focal area received US$3.75 million.

18 Including the Project Preparation Grants (PPG).

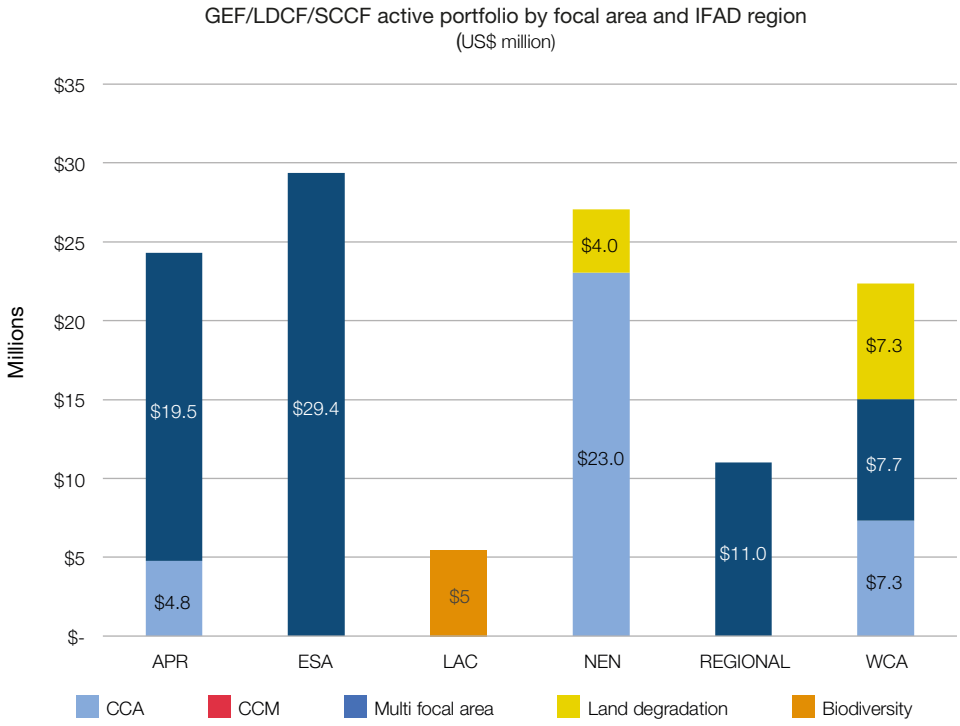
19 Projects with a climate change adaption focal area are funded by the GEF-managed Special Climate Change Fund (SCCF) Least Developed Countries Fund (LDCF).

Figure 12. IFAD-GEF active portfolio by focal area



The IFAD-GEF portfolio has a reasonable regional balance. Eastern and Southern Africa (ESA) has the highest share of projects and Latin America and the Caribbean (LAC) the lowest (see figure 13).

Figure 13. IFAD-GEF active portfolio by region



The IFAD-GEF portfolio had been expanding until GEF-7 (2018-2022) when approvals decreased from a high of US$86.7 million in GEF-6 (2.6 per cent of overall GEF-6 resources), to US$40.7 million (as of December 2021) in GEF-7 (1.2 per cent of overall GEF-7 resources). Financing from the GEF-managed Special Climate Change Fund (SCCF)

and Least Developed Countries Fund (LDCF) also fell, from US$12.6 to US$8.9 million. Although the share of IFAD's GEF-7 portfolio is comparable to that of the regional development banks, it remains much lower than the share for UNDP (32.3 per cent), the World Bank (16.5 per cent), FAO (15.7 per cent) and UNEP (14 per cent).

The reduced GEF-7 portfolio is due to a number of factors, including the decision to prioritize building a portfolio with the GCF, to which IFAD became accredited late in 2016. The COVID-19 pandemic also contributed to a decline in the GEF portfolio as the pandemic severely compromised IFAD's ability to deliver on full designs and no GEF CEO approvals were concluded in 2020. However, a healthy pipeline for GEF projects was maintained in 2020 and this has led to a number of new approvals in 2021 and 2022.

New approvals

In 2021, approvals were obtained for three new GEF projects, and three more were approved in 2022. All of these GEF-financed projects have leveraged a significant amount of co-financing (see table 2). Half of these projects are being implemented in fragile and conflict-affected situations (Niger, Sudan and Yemen)[20], reflecting IFAD's commitment to increase to countries in conflict-affected situations.

Biodiversity is a focal area in four of these projects. Two of these projects are being implemented in the Amazonian forests of Peru, and the other in Kenya in the Mau Forest Complex, which is the largest indigenous montane forest in East Africa. These projects reflect how deeply intertwined climate action is with the conservation and sustainable use of biodiversity. Implementation of the new IFAD Strategy on Biodiversity will enable even more effective engagement with GEF in the biodiversity focal area.

Table 2. GEF project approvals 2021-2022

2022	
Niger - Promoting Sustainable Agricultural Production and Conservation of Key Biodiversity Species through Land Restoration and Efficient Use of Ecosystems in the Dallol Bosso and Surrounding Areas (PROSAP/COKEBIOS)	
To strengthen national, regional and municipal capacity and actions to implement an integrated ecosystem management approach in the Dallol Bosso landscape in Niger.	
Total project grant: US$5 296 808 GEF grant: US$2 420 096 IFAD grant: US$2 876 712	Co-financing total: US$70 388 966
Project details on GEF website: www.thegef.org/projects-operations/projects/10420	
Rural Adaptation in Yemen	
Improve farmland and rangeland productivity, food security, and soil and water conservation through the rehabilitation and sustainable management of climate-proof agriculture.	
GEF grant: US$10 000 000	Co-financing total: US$11 421 065
Project details on GEF website: www.thegef.org/projects-operations/projects/5174	

20 According to the World Bank harmonized list of fragile and conflict-affected situations (2022) at: www.worldbank.org/en/topic/fragilityconflictviolence/brief/harmonized-list-of-fragile-situations

Table 2. GEF project approvals 2021-2022 *continued*

Kenya - Eldoret-Iten Water Fund for Tropical Water Tower Conservation	
Conserve globally significant biodiversity and protect the integrity and resilience of critical ecosystems and their services in the targeted water towers.	
GEF grant: US$2 630 139	Co-financing total: US$24 848 000
Project details on GEF website: www.thegef.org/projects-operations/projects/10209	
2021	
Sudan - Sustainable Natural Resource and Livelihood Adaptive Programme (SNRLAP)	
Strengthening resilience of local communities to climate change in the Butana, Sennar and Kordofan regions.	
GEF grant: US$2 000 000	Co-financing total: US$49 930 000
Project details on GEF website: www.thegef.org/projects-operations/projects/10350	
Peru - Building human well-being and resilience in Amazonian forests by enhancing the value of biodiversity for food security and bio-businesses, in a context of climate change	
To advance the conservation of healthy and functional forests and wetlands resilient to climate change, maintaining carbon stocks, preventing GHG emissions, and generating sustainable and resilient local livelihoods.	
Total project grant: US$15 599 083 GEF grant: US$12 884 151 IFAD grant: US$2 714 932	Co-financing total: US$124 561 476
Project details on GEF website: www.thegef.org/projects-operations/projects/10248	
Peru - Deforestation Free Commodity Supply Chains in the Peruvian Amazon	
Introduce sustainable (deforestation-free and profitable) commodity production models to reduce deforestation and land degradation caused by the ongoing increasing unsustainable production of agricultural commodities in critical economic-ecological jurisdictions in the northwestern Amazon of Peru.	
Total project grant: US$13 561 467 GEF grant: US$10 308 715 IFAD grant: US$3 252 752	Co-financing total: US$112 149 960
Project details on GEF website: www.thegef.org/projects-operations/projects/10307	

Adaptation Fund

IFAD is currently implementing 11 Adaptation Fund-financed projects. The regional distribution of these projects is concentrated in the Near East and North Africa (NEN) and West and Central Africa (WCA), each of which have four projects. The Central and Eastern Europe and the Newly Independent States (CEN) subregion has three projects under implementation.

In 2020, there were three new project approvals. COVID slowed down the pipeline somewhat, and there was only one new project approved in 2021. However, the two approvals have already been obtained in 2022 (see table 3). The total financing for the nine projects under implementation and the two recently approved projects is US$89,340,169.

Table 3. Adaptation Fund project approvals 2021-2022

2022
Kyrghizstan- Regional Resilient Pastoral Communities Project - ADAPT
The project goal is to contribute to rural poverty alleviation in the country through increased climate resilience, incomes and gender-sensitive growth in rural farming communities.
Grant amount: US$9 999 313
Project details on the Adaptation Fund website: www.adaptation-fund.org/project/resilient-pastoral-livelihoods-project-adapt/
Increasing Rural Communities' Adaptive Capacity and Resilience to Climate Change in Bandama Basin in Côte d'Ivoire
The project proposes the implementation of a set of concrete adaptation interventions targeted to three profitable crop production systems (rice, cassava and cocoa) in the Bandama basin.
Grant amount: US$6 000 000
Project details on the Adaptation Fund website: www.adaptation-fund.org/project/increasing-rural-communities-adaptive-capacity-and-resilience-to-climate-change-in-bandama-basin-in-côte-divoire/
2021
Integrated Water and Soil Resources Management Project (Projet de gestion intégrée des ressources en eau et des sols PROGIRES)
The main objective of PROGIRES is to improve the climate resilience of vulnerable ecosystems and increase the adaptive capacity of rural poor to respond to the impacts of climate change in Djibouti.
Grant amount: US$5 339 285
Project details on the Adaptation Fund website: www.adaptation-fund.org/project/integrated-water-and-soil-resources-management-project-projet-de-gestion-integree-des-ressources-en-eau-et-des-sols-progires-2/

Conclusion

In IFAD11, the Fund successfully delivered on its climate finance targets. Climate finance represented 35 per cent of PoLG approvals, far exceeding the IFAD11 target of 25 per cent. Targets for attracting supplementary climate finance from the Adaptation Fund, GCF and GEF were also surpassed by a substantial margin. While good progress has been made in mobilizing resources for ASAP+ (US$66 million), further efforts will be required in IFAD12 to meet the target of US$500 million.

There is also important work ongoing to better align IFADs supplementary finance pipeline and portfolio, and its PoLG. This includes both new and updated data systems and dashboards, as well as better mapping and coherence between different institutions' working practices.

©IFAD/Isaiah Muthui

Chapter 4: Delivering impact

Key points

- 95 per cent of active IFAD projects received an adaptation to climate change (ACC) performance rating of four (moderately satisfactory) or higher at supervision. For projects completed during IFAD11, the percentage is 92 per cent, which is significantly higher than the 85 per cent target set at the start of the replenishment period. For IFAD12, the performance target of completed projects receiving ACC ratings of 4 or higher will increase to 90 per cent.
- Impact assessments on a sample of 24 projects (25 per cent of the total) completed during IFAD11 showed that IFAD investments had improved the resilience of around 38 million beneficiaries by at least 20 per cent.
- For IFAD11 investments that underwent a GHG assessment, the total negative carbon balance was -164.7 million tonnes of CO_2e, of which 53.7 million tonnes are estimated to be the result of 13 projects approved in 2021.

4.1 IFAD performance ratings

IFAD tracks the performance of active and completed projects using a six-tiered rating scale (from 1 as highly unsatisfactory to 6 as highly satisfactory), across several dimensions, including adaptation to climate change (ACC), environmental and natural resource management (ENRM) and SECAP.[21]

21 A detailed description of the IFAD environment and climate performance ratings can be found in Chapter 4 of CAR 2020.

IFAD set the target that 90 per cent of projects completing in IFAD11 should receive an ENRM rating of 4 or higher and that 85 per cent should receive an ACC rating of 4 or higher. Table 4, which summarizes the status of ACC, ENRM and SECAP ratings for active and completed projects funded through IFAD's PoLG, shows that these targets were surpassed.

Table 4. IFAD projects in 2021: Environment and climate performance ratings (as of December 2021)

ACC ratings	Blank	1	2	3	4	5	6	Percentage of scores higher than 4
Active portfolio (195 in 2021)	2	0	0	10	137	45	1	
				5%	71%	23%	1%	95%
Projects completed in IFAD11 (79 in 2019-2021)	2	0	1	5	46	25	0	
			1%	6%	60%	32%		92%
ENRM ratings	**Blank**	**1**	**2**	**3**	**4**	**5**	**6**	**Percentage of scores higher than 4**
Active portfolio (195 in 2021)	16	0	0	10	116	52	1	
				6%	65%	29%	1%	94%
Projects completed in IFAD11 (79 in 2019-2021)	0	0	0	5	45	28	1	
				6%	57%	35%	1%	94%
SECAP ratings	**Blank**	**1**	**2**	**3**	**4**	**5**	**6**	
Active portfolio (195 in 2021)	7	0	1	20	132	35	0	
			1%	11%	70%	19%		89%

Ratings values
1 = Highly unsatisfactory
2 = Unsatisfactory
3 = Moderately unsatisfactory
4 = Moderately satisfactory
5 = Satisfactory
6 = Highly satisfactory
Blank = The number of projects not reporting against that specific rating

In 2021, 94 per cent of active projects received an ENRM rating of 4 or higher at supervision, an increase over the previous year, when the figure stood at 84 per cent. For projects completed during IFAD11, the share of completed projects that received a rating of 4 or higher was 94 per cent. In 2021, the percentage of active projects that received a SECAP rating of 4 or higher at supervision was 89 per cent which is the same as the preceding year.

The steady improvement in ACC and ENRM performance ratings is a testament to IFAD's commitment to the systematic analysis of performance and the application of lessons learned across the portfolio.

For IFAD12, **the performance target of completed projects receiving ACC ratings of 4 or higher will increase to 90 per cent** to be in line with the ENRM target, which will remain the same.

4.2 Adaptation for Smallholder Agriculture Programme results

ASAP, IFAD's flagship programme launched in 2012, is one of the largest multidoor global funds devoted to smallholder agricultural adaptation. It represents a critical instrument for mobilizing and channelling grant-based climate finance to small-scale agricultural producers and increasing their resilience to current and future impacts of climate change. Over 40 adaptation-focused projects have been designed and implemented under ASAP1 across 41 countries. Twenty-six of these projects are currently ongoing, 23 of them have completed their midterm review, and six projects in the ongoing cohort are set to complete in 2022. The remaining projects part of the ASAP1 portfolio is scheduled to be completed by 2025. A further six projects are in the pipeline under ASAP+.

Table 5. Regional breakdown of all ASAP projects

		APR	ESA	LAC	NEN	WCA	Total
ASAP1 (2012-2025)	Completed	2	3	2	5	5	17
	Ongoing	4	7	2	5	7	25
Total ASAP 1		**6**	**10**	**4**	**10**	**12**	**42**
ASAP+ (2021-2030)	Approved			1			1
	Pipeline		2		2	2	6
Total ASAP+		**0**	**2**	**1**	**2**	**2**	**7**

As shown in table 6, for most indicators across the portfolio, the results achieved stand at over 90 per cent, while two indicators present results that surpass expectations. Since ASAP's inception, consistent revisions of targets represent IFAD's higher ambitions. Hence, these results are particularly commendable considering that overall programme finances have decreased after the 2016 devaluation of the pound sterling.

At this stage, the programme is nearing the achievement of its goal to improve the resilience of poor smallholder farmers and scale up multiple-benefit adaptation approaches. Successes in increasing capacity to manage short-term and long-term climate risks and reduce losses from weather-related disasters, enhancing water use efficiency and availability, and disseminating climate-smart solutions and localized technology, among others, emerge from the programme. Throughout the design and implementation of ASAP1, IFAD generated valuable evidence and lessons on adaptation to climate change. This knowledge

has helped IFAD mainstream strong attention to climate across its portfolio of investment projects and has been widely disseminated at national and international levels to promote the scale-up of climate adaptation innovations and successes by country governments and other development agencies and financial institutions.

In 2021, to keep the delivery of ASAP's portfolio-level targets on track several steps were taken with regard to the financing of three specific projects.

- The Strengthening the Rural Actors of the Popular and Solidarity Economy Project (FAREPS) project in Ecuador was cancelled and the entire US$4 million ASAP grant was reallocated to the Agroforestry Cooperative Development Project (PRODECAFE) in Cuba, which will match or exceed FAREPS contributions to the ASAP logframe.
- The PROPACOM-WEST project in Cote d'Ivoire was completed without fully disbursing ASAP funds. The undisbursed funds (EUR 3.07 million) have been reprogrammed into the new Agricultural Emergency Support Project (AESP) within Cote d'Ivoire, and this project is expected to make up for a shortfall in the unmet targets for the original project.
- Similarly, in Nigeria, the CASP project was completed with US$3.5 million in ASAP funds undisbursed. This money will be programmed into the Value Chain Development Programme (VCDP) in Nigeria and the targeting and implementing areas will remain the same as for CASP.

Table 6. Aggregate programme targets and results against ASAP1 log frame

ASAP results hierarchy	ASAP results at global portfolio level	Portfolio results indicators	Programmed at design[22]	Results from RIDE 2021	Results to date	Percentage achieved
Goal	Poor smallholder farmers are more resilient to climate change	1 No. of poor smallholder household members whose climate resilience has been increased	6 757 059	6 029 708	6 480 351	96%
Purpose	Multiple-benefit adaptation approaches for poor smallholder farmers are scaled up	2 Leverage ratio of ASAP grants versus non-ASAP financing	01:07.5	01:07.9	01:07.9	105%
		3 No. of tons of greenhouse gas emissions (CO_2e) avoided and/or sequestered	80 million tonnes over 20 years (2012 target)	60 million tonnes over 20 years	50 million tonnes over 20 years[23]	n/a
Outcome 1	Improved land management and gender sensitive climate-resilient agricultural practices and technologies	4 No. of hectares of land managed under climate-resilient practices	1 858 682 hectares	1 075 622 hectares	1 205 077 hectares	65%
Outcome 2	Increased availability of water and efficiency of water use for smallholder agriculture production and processing	5 No. of households, production and processing facilities with increased water availability	4 443 facilities	3 405 facilities	4 263 facilities	96%
			288 858 households	284 696 households	308 416 households	107%
Outcome 3	Increased human capacity to manage short-term and long-term climate risks and reduce losses from weather-related disasters	6 No. of individuals (including women) and community groups engaged in climate risk management, ENRM or disaster risk reduction activities	1 926 889 people	1 447 164 people	1 926 652 people	100%
			25 432 groups	14 248 groups	19 429 groups	76%

22 Currently expected to be achieved by December 2025, but subject to change depending on the evolving status of ASAP projects.

23 An assessment of the mitigation co-benefits of the ASAP1 portfolio results to date – comprised of 14 completed EX-ACT analyses for ongoing/completed ASAP projects (approximately 30 per cent of the 2022 ASAP portfolio) – showed a potential of 15 million tonnes of CO_2e over a 20 years' time horizon. This sample has been extrapolated to provide a portfolio estimate of 50 million tonnes over 20 years. This decrease compared to RIDE 2021 reporting is due to the variation in projects in the ASAP portfolio in 2022 (following restructuring/cancellations and reallocations), coupled with changes in certain project analyses between MTR and completion (GHG projections become more accurate as projects mature).

Table 6. Aggregate programme targets and results against ASAP1 log frame *continued*

ASAP results hierarchy	ASAP results at global portfolio level	Portfolio results indicators	Programmed at design[22]	Results from RIDE 2021	Results to date	Percentage achieved
Outcome 4	Rural infrastructure made climate resilient	7 US$ value of new or existing rural infrastructure made climate resilient	US$131 375 000 543 km	US$71 707 000 465 km	US$96 618 000 526 km	74% 97%
Outcome 5	Knowledge on climate-smart smallholder agriculture documented and disseminated	8 No. of international and country dialogues on climate issues where ASAP-supported projects or project partners make an active contribution	36	21	33	92%

The following two sections in this chapter look at specific examples of the impact of individual IFAD projects, including those that received ASAP support, in terms of building resilience, mitigating climate change mitigation and delivering other benefits.

4.3 Carbon balance analysis of IFAD projects

With funding from ASAP 2, IFAD has been using The Ex Ante Carbon-balance Tool (EX-ACT) and the Global Livestock Environmental Assessment Model-interactive (GLEAM-i), which have been developed by FAO, to provide an ex ante estimation of the net impact of IFAD-financed projects on GHG emissions. Whereby, EX-ACT is used for crop and forestry development projects and GLEAM-i is used for livestock projects. For both, carbon balance is defined as the net balance of all GHGs that are emitted or sequestered as a result of project implementation and is expressed in tonnes of CO_2e. In real terms, carbon balance represents the difference that a project makes compared to a "business-as-usual" scenario so represents the difference made. It is important to note here that both EX-ACT and GLEAM-i calculate the carbon balance over a period of 20 years.

During IFAD11, EX-ACT analyses were conducted with FAO technical assistance on 14 IFAD investments supported by ASAP. For these projects, the findings indicate a cumulative negative carbon balance of -14.5 million tonnes. Sixteen EX-ACT analyses, 14 of which were performed under an IFAD grant, were finalized for IFAD PoLG projects. These findings show a negative carbon balance of -25.2 million tonnes. Finally, 24 EX-ACT analyses, 16 of which were funded through an IFAD grant, were carried out for IFAD projects financed by global climate funds (GCF, GEF and the Adaptation Fund). For these projects, some of which began in IFAD10, the negative carbon balance was of -140.3 million tonnes. A GLEAM-i analysis was also carried out with an ASAP grant for two of these projects: the GEF-financed Regeneration of Landscapes and Livelihoods (ROLL) project in Lesotho, and the GCF-financed Community-based Agricultural Support Project Plus (CASP+) in Tajikistan.

For IFAD11 investments for which a GHG assessment was conducted, the cumulative negative carbon balance was -164.7 million tonnes, of which -53.7 million tonnes are estimated to be the result of 13 projects that were approved in 2021. Figures 14 and 15 provide a breakdown of the carbon balance results by type of financing and by region. Figure 16 focuses in detail on carbon balance for projects in the Asia and Pacific region (APR) only.

Figure 14. Cumulative carbon balance since 2010 by type of financing

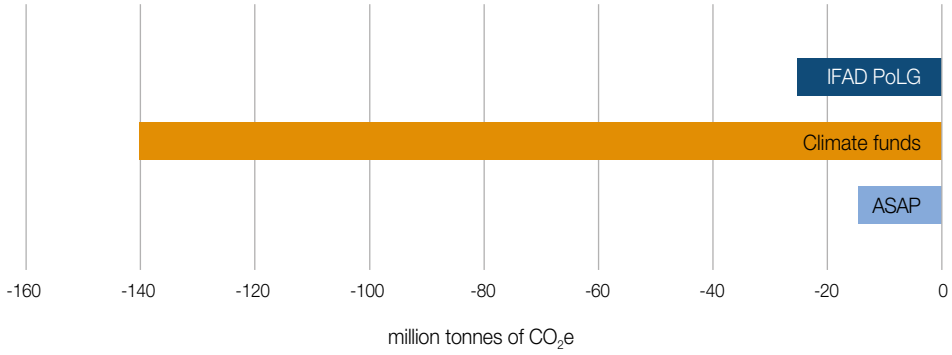


Figure 15. Carbon balance of 2021-approved projects by type of financing and region

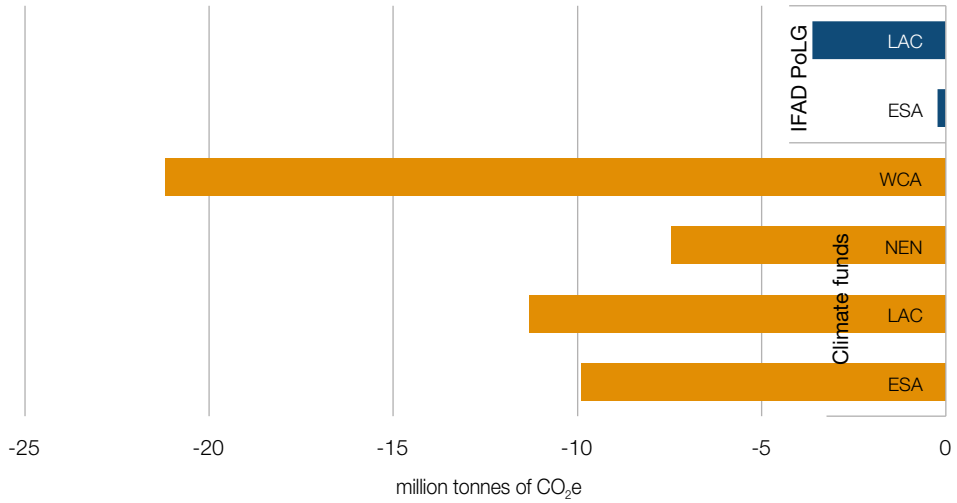
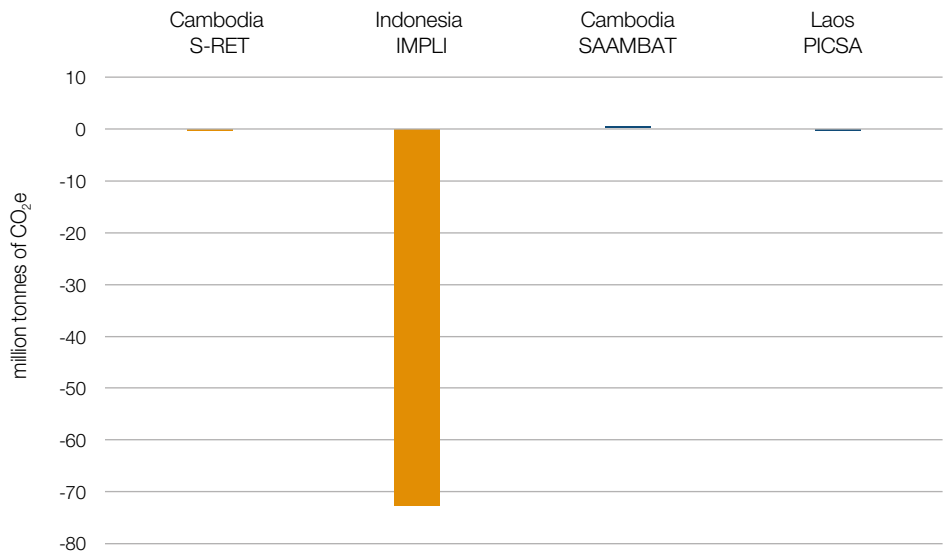


Figure 16. Carbon balance of APR IFAD11 projects



To date, the Integrated Management of Peatland Landscapes in Indonesia (IMPLI) project has the highest mitigation potential in the Asia and Pacific region and in the IFAD11 portfolio as a whole. The development objective of this GEF-financed project is to conserve biodiversity, reduce GHG emissions and improve rural livelihoods in selected peatland areas. IMPLI has the potential to achieve a carbon balance of more than -72 million tonnes[24] through restoration activities that increase biomass and reduce emissions from organic soils (peatlands). These activities include avoiding forest conversion (deforestation or degradation); forest rehabilitation by allowing natural regeneration of vegetation and water table levels; the rewetting of land used for pulp, timber and estate crops (oil palm); building water control structures; and implementing measures to prevent forest fires.

The findings of the EX-ACT analysis of The Building Adaptive Capacity through the Scaling-up of Renewable Energy Technologies in Rural Cambodia (S-RET) project show that it has a negative carbon balance of around 119 tonnes. Lower GHG emissions are achieved mainly through the adoption of solar water pumps, egg incubators and bio digesters, the use of biochar briquettes and reductions in wood and charcoal combustion. However, the EX-ACT analysis for another project in Cambodia, Sustainable Assets for Agriculture Markets, Business and Trade (SAAMBAT), indicated that project implementation will lead to a positive carbon balance of 35 tonnes. This is because SAAMBAT promotes infrastructure development (e.g. road rehabilitation and market construction) and does not include any land-based interventions.

Finally, the EX-ACT analysis of the Partnerships for Irrigation and Commercialisation of Smallholder Agriculture Project (PICSA) in the Lao People's Democratic Republic shows a carbon balance of -212 tonnes. Most of this negative carbon balance is from carbon

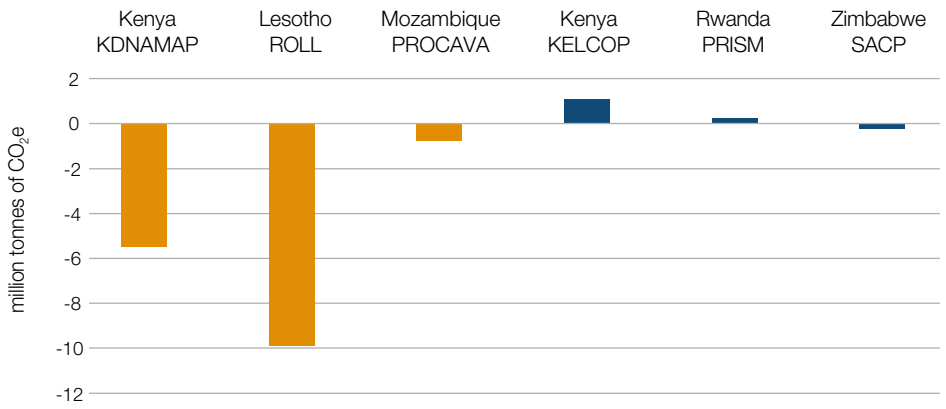
24 This figure is subject to inaccuracies as the version of the EX-ACT tool that was used for this analysis did not fully capture the complexities of peatland systems.

sequestration in the soil, which is achieved by cultivating annual crops during the dry season on paddy fields that have previously been set aside.

East and Southern Africa

Figure 17 provides details on the carbon balance for projects in the East and Southern Africa (ESA) region.

Figure 17. Carbon balance of ESA IFAD11 projects



In East and Southern Africa, EX-ACT analyses were carried out for six projects. The GEF-financed ROLL project in Lesotho has the potential to achieve a negative carbon balance of 10 million tonnes by restoring forest and shrubland through the promotion of agroforestry, climate-resilient livestock practices, and the application of manure as fertilizer and mulching.

In Mozambique, the GCF-financed Inclusive Agrifood Value Chain Development Programme (PROCAVA), which supports genetic improvements in cattle and goat breeds and restores degraded lands through erosion control and pond management, is projected to have a negative carbon balance of 800 tonnes over 20 years.

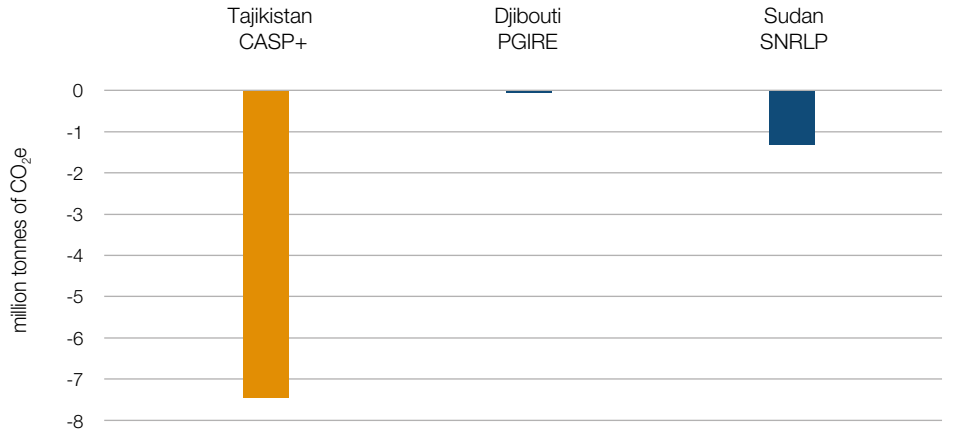
The GCF-financed Kenya Dairy Nationally Appropriate Mitigation Action Project (KDNAMAP) is projected to have a negative carbon balance of 5 million tonnes, as a result of supporting famers to improve fodder production and increase their use of renewable energy and biogas.

Two of the analysed projects in the region have a positive carbon balance primarily due to their livestock component activities, which are not offset by an increase in ecosystem services or agroecological farming practices. It is estimated that the Kenya Livestock Commercialization Project (KeLCoP) will result in a positive carbon balance of 1 million tonnes, and the Partnership for Resilient and Inclusive Small Livestock Markets Programme (PRISM) in Rwanda will contribute an additional 204 tonnes of CO_2e emissions.

Near East and North Africa

Figure 18 provides details on the carbon balance for projects in the Near East and North Africa (NEN) region.

Figure 18. Carbon balance of NEN IFAD11 projects

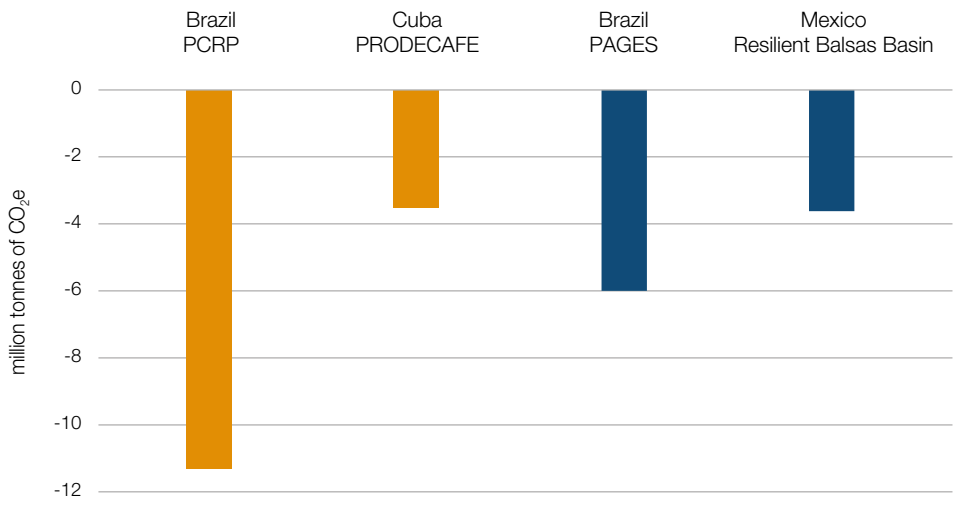


In the Near East and North Africa, the CASP+ project in Tajikistan is an excellent example of a climate-smart project. The CASP+ project will contribute to the avoidance and/or sequestration of around 4.5 million tonnes of CO_2e through afforestation activities; the establishment of demonstration plots for perennial crops through farmer field schools; improved management of pastures and forests; and improved livestock practices. In Djibouti, the Integrated Water Management Project (PGIRE), which will support the assisted natural regeneration of plant cover, is expected to result in a negative carbon balance of almost 55 tonnes. In Sudan, the Sustainable Natural Resources and Livelihoods Programme (SNRLP) will create a carbon balance of around -1.3 million tonnes through the expansion of agroforestry and improved agroecological practices.

Latin America and the Caribbean

Figure 19 provides details on the carbon balance for projects in the Latin America and the Caribbean (LAC) region.

Figure 19. Carbon balance of LAC IFAD11 projects



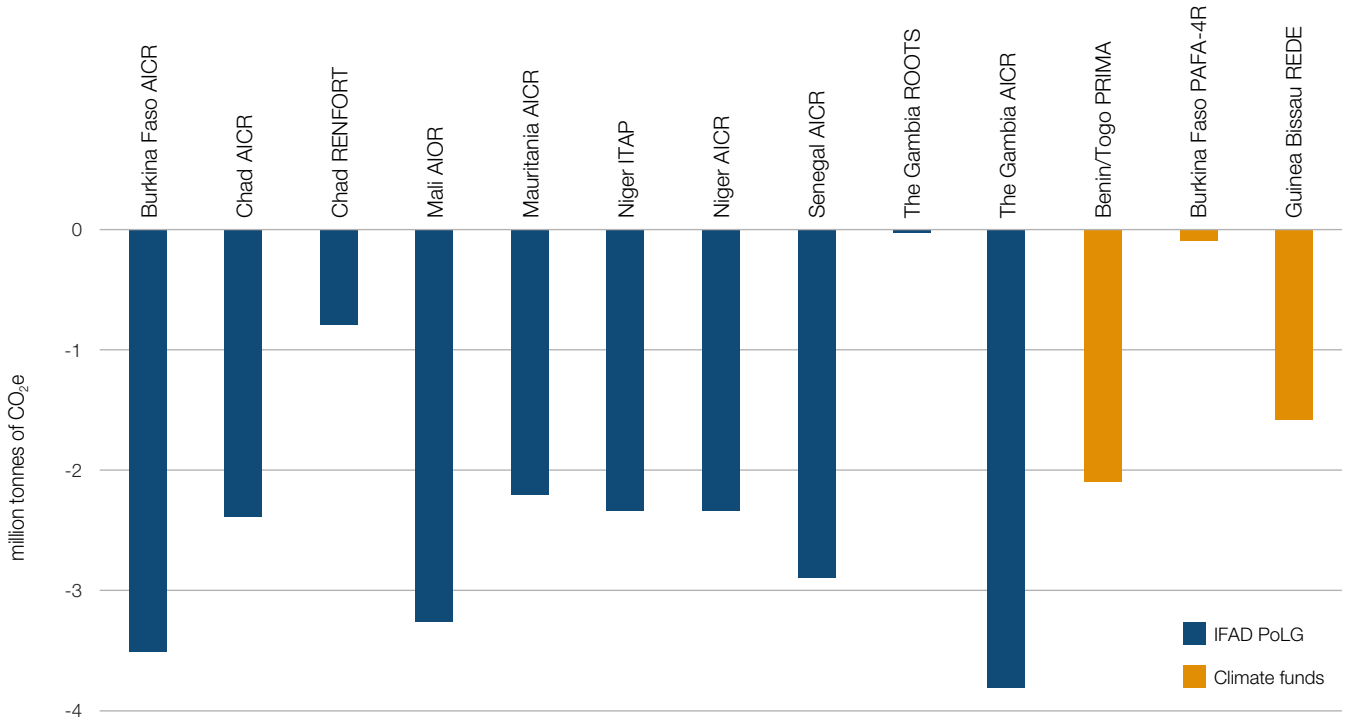
In Latin America and the Caribbean, agroforestry is an important element of climate mitigation strategies. The GCF-funded project in Brazil, Planting Resilience in Rural Communities of the Northeast (PCRP), is estimated to have a carbon balance of over -11 million tonnes. In Cuba, the Agroforestry Cooperative Development Project (PRODECAFE), which is supported with funding from the Adaptation Fund, has a negative carbon balance of more than 3.5 million tonnes. Both projects are piloting highly efficient agroforestry systems. In Brazil, sylvopastural practices and alley cropping are projected to sequester more than 9 million tonnes of carbon. In Cuba, shaded perennial crop systems for coffee and cacao will contribute to sequestering almost 4 million tonnes.

The EX-ACT analysis of the Amazon Sustainable Management Project (PAGES) in Brazil indicates the project will have a negative carbon balance of 6 million tonnes as a result of reforestation activities and the protection of tropical rainforest; improved agronomic practices (alley cropping of açai and bananas); and the adoption of eco-efficient stoves and drip irrigation systems. In the Balsas Basin of Mexico, the Reducing Climate Vulnerability and Emissions through Sustainable Livelihoods Project (Resilient Balsas Basin) is estimated to achieve a negative carbon balance of about 3.6 million tonnes through the conservation, restoration and sustainable management of forest ecosystems; shaded agroforestry; and integrated homestead backyard food production (*traspatio*).

West and Central Africa

Figure 20 provides details on the carbon balance for projects in the West and Central Africa (WCA) region.

Figure 20. Carbon balance of WCA IFAD11 projects



In West and Central Africa, the GCF-financed Africa Integrated Climate Risk Management (AICRM) Programme makes the largest contribution in terms of tonnes of CO_2e reduced and/or sequestered. This regional programme is implemented in Burkina Faso, Chad, Mali, Mauritania, Niger, Senegal and The Gambia. Activities that produce the main carbon sinks include land restoration through agroforestry (e.g. expanding parkland through assisted natural regeneration or planting hedgerows around horticulture plots); pasture restoration on degraded land; the promotion of Zaï planting pits and half-moon contours with organic manure and micro-dosing with urea; and the sustainable management of forests and shrubland. Of this group of nations, activities implemented in The Gambia have the largest potential negative carbon balance (almost 4 million tonnes), followed by Burkina Faso (3.5 million tonnes) and Mali (3.3 million tonnes).

The EX-ACT analysis of the Family Farming Diversification, Integrated Markets, Nutrition and Climate Resilience Project in Guinea-Bissau (REDE), a PoLG project, indicate that the improvement of perennial crop systems (e.g. intercropped cashew, intercropped orchards and agroforestry on home gardens) is the activity with the greatest mitigation potential, potentially creating a carbon balance of -1.6 tonnes. Conversely however, the intensification of rice cultivation systems and the introduction of irrigation systems are significant sources of emissions, which have been estimated to add more than 200 tonnes of CO_2e.

Mitigation targets in nationally determined contributions and the carbon balance in IFAD projects

GHG accounting tools like EX-ACT and GLEAM-i are critical for integrating climate change mitigation objectives into national policies and international commitments, particularly NDCs. These tools allow comparisons between the climate mitigation goals established in NDCs and the contribution IFAD projects make toward reducing and or sequestering GHG emissions. Two projects, ROLL in Lesotho and CASP+ in Tajikistan, can serve as examples.

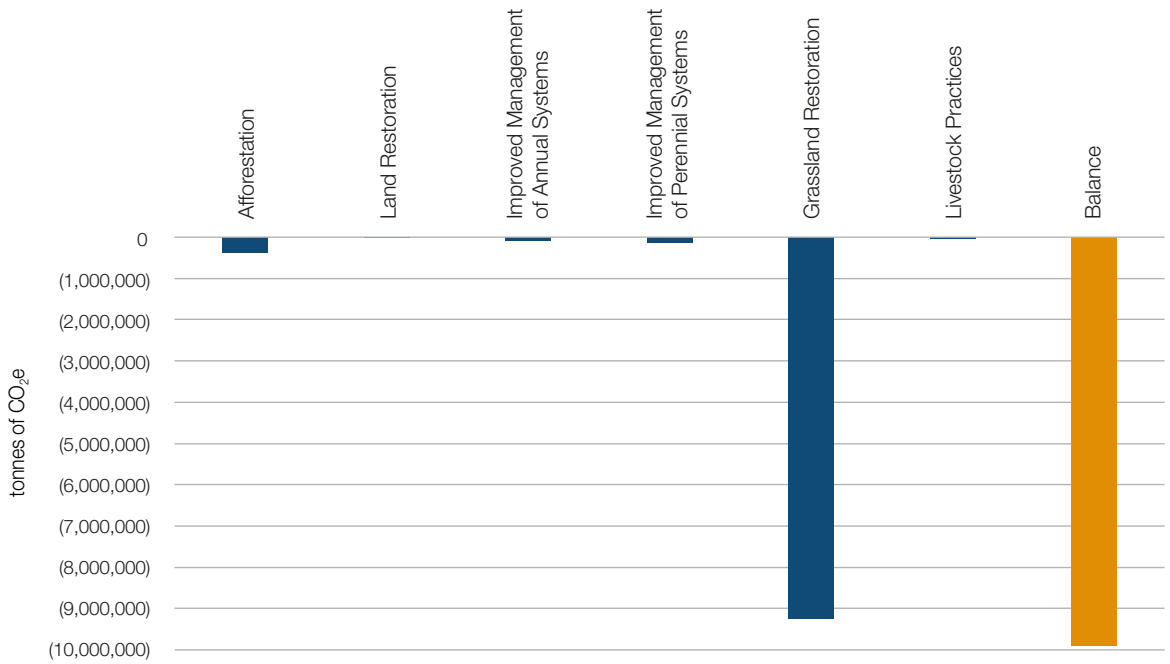
Lesotho: National Climate Policy and Regeneration of Landscapes and Livelihoods (ROLL)

In its NDC[25], Lesotho committed to unconditionally lower its net annual GHG emissions by 10 per cent by 2030 relative to a business-as-usual scenario yearly emission rate of 5.7 million metric tonnes of CO_2e. The country could reduce its emissions by an additional 25 per cent if external support (e.g. finance, investment, technology development and transfer and capacity building) covered the costs of implementing the adaptation and mitigation actions. Lesotho aimed to achieve these goals by prioritizing afforestation and reforestation activities; building energy efficiencies and renewable energy systems; adopting low-carbon technologies in industry; developing transport and building efficiency; and implementing sustainable waste management systems.

The ROLL project contributed to Lesotho's NDCs by leading carbon mitigation and sequestration activities across the AFOLU sector. The findings of the EX-ACT analysis show the project's activities have a positive environmental impact, generating a negative carbon balance of 9.9 million tonnes over 20 years. Figure 21 shows how different activities contribute to this overall negative carbon balance. Rangeland management and restoration of forests and shrublands across over 5,000 hectares have significantly reduced the degradation of grasslands and have the highest mitigation potential. Agroforestry, afforestation and improved agronomic practices (e.g. mulching, manure application and residue retention) for maize, sorghum and beans further increased the mitigation potential of the project. Lastly, climate-resilient livestock management practices achieved a negative carbon balance despite increasing the productivity of livestock herds.

25 Lesotho's NDC is available at: www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Lesotho%20First/Lesotho%20First%20NDC.pdf

Figure 21. Carbon balance of the ROLL project in Lesotho by activity



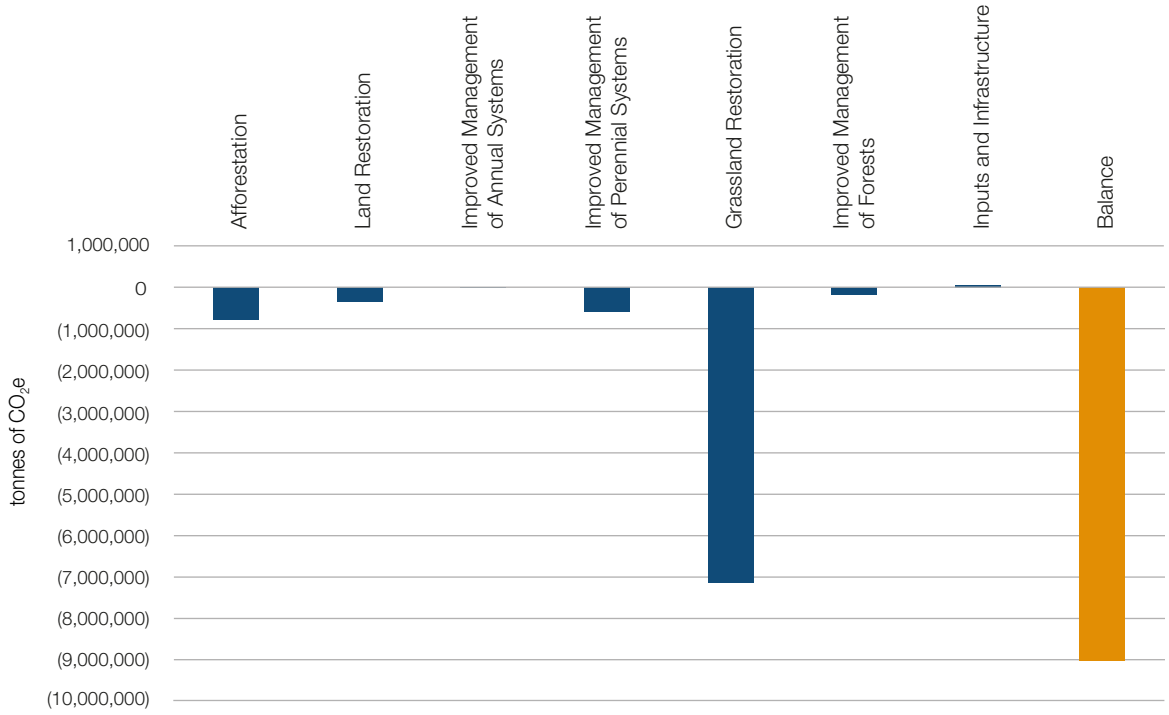
Tajikistan: National Climate Policy and Community-based Agricultural Support Project Plus (CASP+)

Tajikistan's NDC[26] includes unconditional and conditional GHG emission reduction scenarios for 2030. In its unconditional contribution, Tajikistan has committed itself to ensuring its 2030 emissions will not exceed 60 to 70 per cent of GHG emissions from 1990. In its conditional contribution, which is subject to international funding and technology transfer, the commitment is to not exceed 50 to 60 per cent of its 1990 GHG emissions. In 1990 Tajikistan's overall GHG emissions were 35.5 million tonnes of CO_2e, with agriculture accounting for 30 per cent of these emissions (10.5 million tonnes).

CASP's interventions in afforestation, land and grassland restoration, among other management-based efficiency improvements, contributed toward an overall negative carbon balance of 4.5 million tonnes. Through pasture restoration and rotation, protective fencing, reseeding and fertilization the project mitigated approximately 3.6 million tonnes of carbon (see figure 22). Furthermore, by reducing feed intake, pressure on pastures and other natural resources the project curbed the degradation of grazing systems. With farmer field schools promoting good agronomic and livestock nutrient management practices, the project enhances the long-term sustainability of mitigation and adaptation efforts. Additionally, the project is investing in small-scale processing equipment, hydroponic fodder, inputs and service provision, drip irrigation, solar drying facilities, greenhouses and nurseries. The only source of emissions derives from energy use for transporting milk and at collection centres. These emissions are minuscule compared to the carbon sinks created through other project activities.

26 Tajikistan's NDC is available at: www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Tajikistan%20First/NDC_TAJIKISTAN_ENG.pdf

Figure 22. Carbon balance of the CASP+ project in Tajikistan by activity



4.4 Global Environment Facility project implementation progress

As noted in the previous chapter, IFAD has attracted significant co-financing from the GEF over the years. These investments have delivered results both in terms of building resilience, improving land management and mitigating climate change. The two programmes from Africa and Indonesia described in this section exemplify the diversity of the impacts that have been achieved through this relationship.

Resilient Food Systems programme

IFAD is leading the GEF-funded Integrated Approach Programme on Fostering Sustainability and Resilience for Food Security in Sub-Saharan Africa (2017-2023). The programme generally referred to as the Resilient Food Systems (RFS) programme involves multiple agencies and is funded through multiple trust funds under GEF-6. The RFS programme is made up of 12 country projects, 5 of which are being implemented in countries experiencing fragile and conflict-affected situations. IFAD is leading seven of the continent's projects in addition to the hub coordination project. Each country's project invests in safeguarding the environment, advancing food security and improving the livelihoods of the people affected by their activities.

The RFS programme is one of three GEF-funded integrated approach pilot programmes. In piloting these integrated programmes, the GEF is working to ensure that its financing is not confined to particular focal areas but is invested in a coherent manner to promote synergies that can deliver multiple global environmental benefits, including improved climate adaptation and mitigation. In 2021, US$65.6 million of US$96 million in GEF

grant funds were disbursed to RFS projects, and US$252 million of co-financing was spent against US$454 million committed.

Reaching multiple objectives

IFAD is well suited to lead the RSP programme, as this multiple-benefit approach has been central to ASAP and other IFAD programming for many years. Originally funded under the GEF-6 replenishment, GEF provided guidance throughout 2021 on how to make the transition to the new GEF-7 results architecture. Many of the GEF-7 indicators align with indicators and targets in the IFAD and ASAP results management framework.

Findings from the mid-term review show that RFS through its multi-stakeholder platforms, had influenced policies, policy instruments and regulatory frameworks focused on integrated natural resource management at the national, district, landscape and local levels. The review also found that RFS country projects have engaged over 3.6 million beneficiaries, which is over 77 per cent of the programme target. Of these beneficiaries, 1.5 million were women. A total of 484,547 hectares of previously degraded land had been restored, which represents 70 per cent of the programme target. For both of these results the progress that has been made toward the targets is ahead of the disbursement rate.

The RFS country project in Niger, the Family Farming Development Programme, which is implemented by IFAD, has reached by far the most beneficiaries (over 2 million) and restored nearly 30,000 ha of previously degraded land. More significantly, country results indicate that there has been a 47.8 per cent reduction in malnutrition in the project area. This RFS country project complements other GEF-IFAD project investments in Niger, namely the Pro-Resilience Programme (PRECIS) (2019-2026) and the Family Farming Development Programme in Maradi, Tahoua and Zinder Regions (2015-2023).

Sustainable Management of Peatland Ecosystems in Indonesia

The Sustainable Management of Peatland Ecosystems in Indonesia (SMPEI) project has succeeded in achieving a massive carbon balance of -19,270,183 tonnes of CO_2e (2015 baseline), which represents more than double the original emission reduction target of -8,396,080 tonnes of CO_2e. This is a result of the project having introduced improved agricultural practices to over 300,000 ha of landscapes with oil palm and forest plantations.

SMPEI, which is being implemented in in Riau, Sumatra, works to promote sustainable peatland management, secure carbon stocks, conserve biodiversity and, at the same time, improve the living standards of local communities. It follows up on the successful GEF-funded ASEAN Peatland Forests Project (APFP), a regional IFAD-GEF project implemented between 2009 and 2014, complements the Integrated Management of Peatland Landscapes in Indonesia (IMPLI) 2020-2025. Reducing emissions from peatland forests and ecosystems is a climate mitigation priority for Indonesia, as most of country's emissions (63 per cent) are caused by land-use change alongside peat and forest fires. In its NDC, Indonesia committed to a 60 per cent reduction of GHG emissions from the forest management sector.

Creating a national policy and regulatory framework

Despite the impact of the COVID-19 pandemic and challenges related to staffing, the 2021 mid-term review noted that the SMPEI had delivered beyond expectations in terms of capacity building and the strengthening of institutions for implementing policies and regulations for sustainable peatland management. SMPEI worked with Ministry of

Environment and Forestry (MoEF) to put in place a number of ministerial regulations and sub-regulations on the sustainable use and management of peatland ecosystems and issued technical guidelines to support their implementation. SMPEI also supported the development of the National Peatland Ecosystem Protection and Management Plan (RPPEG), which was adopted in 2020 and will be in force until 2049. The Plan will serve as a model for neighbouring Association of Southeast Asian Nations (ASEAN) countries and contribute to updating ASEAN Peatland Management Strategy for 2021-2030. This process will be supported by an IFAD regional grant to ASEAN on peatland management (Measurable Action for Haze-Free Sustainable Land Management in Southeast Asia) in collaboration with the Center for International Forestry Research (CIFOR) and the Global Environment Centre (GEC).

Partnerships for innovation

As a result of the implementation of strategies and regulations for sustainable peatland management requiring effective monitoring, SMPEI has supported the development of an innovative national peatland monitoring system, SiMATAG-0.4m. The system, which combines remote sensing imagery, ground-level proofing and data collection with the mapping of all peatland areas in the country, provides information on peatland restoration by analyzing peatland water level data and rainfall in peatlands, the development of rewetting infrastructure and vegetation rehabilitation. This system will eventually contribute to a more comprehensive system, the Information System for Protection and Management of Peatland Ecosystems (SIPPEG), which is being developed by MoEF.

SMPEI in collaboration with the Directorate of Peatland Degradation Control (DPDC), under the Directorate General of Pollution and Environment Degradation Control (DG-PEDC), developed a methodology for calculating emission reductions with the elevation of ground water levels. This methodology has been accepted by the Directorate General for Climate Change for tracking the progress being made in reaching the mitigation targets expressed in Indonesia's NDC.

Tangible benefits for local communities

At the community level, the mid-term review noted that excellent progress had been made with 14 targeted villages to improve sustainable peatland management, which included blocking canals, preventing fires and promoting sustainable livelihoods. These community-level activities have translated into tangible benefits for the local households. The project had 7,326 direct beneficiaries, most of whom (6,486) benefitted from improved supply of drinking water. The number of indirect beneficiaries reached by the project is estimated at 22,000. The lessons learned from the actions will be applied and scaled up in a subsequent IFAD-GEF project, Strengthened Systems for Community-based Conservation of Forests and Peatland Landscapes in Indonesia (CoPLI), for which the Project Identification Form (PIF) received clearance and the Project Preparant Grant (PPG) was approved in May 2021.

4.5 Impact assessments

Measuring the attributable impact of its investments on building the resilience of beneficiaries and improving their overall welfare is a priority for IFAD. Only with scientifically sound and rigorous impact assessments can we make a compelling case for increased climate investment in small-scale agricultural production to support rural

transformation and identify pathways for maximizing the multiple benefits derived from these investments. Of note is that IFAD is the only international financial institution that reports the impact of its overall portfolio.

IFAD's Research and Impact Assessment (RIA) Division undertook impact assessments on a representative sample of 24 projects that were completed during IFAD's 11th replenishment cycle that ended in 2021, which represents 25 per cent of the total IFAD projects completed during that replenishment period. In the IFAD approach to impact assessment, the assessment team identifies a representative sample of beneficiaries (the treatment group) and compares their situation with a similar group of households that have not been affected by the project's activities (the comparison group) using a number of indicators that are associated with IFAD's goal, strategic objectives and mainstreaming themes.[27]

This section briefly looks at the some of the initial findings from some selected impact assessments for a range of climate-focused investments. The purpose here is not simply to illustrate the wide range of impacts IFAD investments are having on the resilience of the beneficiaries, but also to show how different indicators can be used to measure this impact.

Economic Inclusion Programme for Families and Rural Communities in the Territory of Plurinational State of Bolivia (ACCESOS)

The Economic Inclusion Programme for Families and Rural Communities in the Territory of Plurinational State of Bolivia (ACCESOS) provides a good example of where different indicators clearly showed an impact on resilience. The main objective of ACCESOS, which received financing from ASAP, was to improve livelihoods of rural farming families by improving their capacities to sustainably manage natural resources (land, water and natural vegetation) and to promote greater financial inclusion and literacy.

The analysis carried out by the impact assessment team found that the perceived ability of households to recover from the different shocks they experienced (both climatic and others) was significantly higher among the treatment group than the comparison group. The assessment also found that income diversity, which is also considered as a proxy indicator for resilience, were greater in beneficiary households than in the comparison group.

These two indicators are specifically intended to measure impact on resilience. However, resilience is also associated with the degree to which climate-resilient agricultural practices have been adopted by the beneficiaries. For ACCESOS, the impact assessment found that the rate of adoption of climate-resilient agricultural practices that can improve natural resource management (e.g. agroforestry, the cultivation of climate-resilient crop varieties, irrigation and erosion control) was significantly higher in the beneficiary households than the comparison group. The adoption of these practices, which led to greater on-farm crop diversity, also contributed to a 13 per cent increase in gross annual income per capita and 25 per cent increase in ownership of productive assets for households in the treatment group than the comparison group. All of these indicators serve to show that ACCESOS was not only able to build the resilience of the beneficiaries, but that this resilience is intricately entwined with improved farm production practices and economic mobility.

27 Details on IFAD's impact assessment methodology are given in CAR 2019. Details on how climate data is integrated into the assessments are given in CAR 2020.

IFAD/Juan I. Cortés

The Sustainable Agricultural Production Programme (SAPP) in Malawi

The Sustainable Agricultural Production Programme (SAPP) in Malawi is another project that had a positive impact on resilience. One of the main goals of SAPP was to contribute to the reduction of poverty and improved food security in rural areas by fostering a transition to a sustainable smallholder agricultural sector that uses good agricultural practices. Unlike ACCESOS, climate change adaptation and mitigation was not an explicit objective of SAPP. However, good agricultural practices that were promoted were expected to make crop production more resilient to climatic extremes, especially drought, and increase carbon sequestration in the soil.

The impact assessment showed that the project had succeeded in significantly increasing the rate of adoption of improved agricultural practices (e.g. planting of grass

strips, crop rotation and the use of organic fertilizers) in beneficiary households than the comparison group. As a result of this outcome, beneficiaries cultivated a greater diversity of crops, which is also a proxy indicator of resilience, and they had greater crop production than the comparison group. The assessment found a modest increase in maize production (12 per cent) but more significant increases for soybeans (60 per cent), pigeon pea (80 per cent) and beans (212 per cent). As a result of the project, beneficiaries had 28 per cent greater gross farm income and a 27 per cent increase in total wages earned. They also rated 23 per cent lower on the Food Insecurity Experience Scale (FIES) thanks to their participation in SAPP.

However, despite these findings, the impact analysis found that beneficiary households did not perceive themselves as being any better able to recover from shocks (both climatic and non-climatic) than households in the comparison group. Despite this apparent lack of impact, beneficiary households were 12 percentage points less likely to report experiencing climatic shocks such as droughts and floods than the comparison group. These results suggest that the project may have prevented noticeable climatic shocks from affecting treated households in the first place compared to the comparison group. Furthermore, when this is the case, the differences between the treatment group and the comparison group with regard to perceived resilience could be flattened out.

Similarly, surveys on beneficiaries' perceptions of resilience may also show little indication of impact when compared to the control group if the climate shocks and other shocks are so extreme that the improvements brought about by the project cannot realistically be expected to improve recovery during the survey period. This phenomenon can be seen in impact assessments from Nicaragua and Viet Nam.

Adapting to Markets and Climate Change Project in Nicaragua (NICADAPTA)

The objective of the Adapting to Markets and Climate Change Project in Nicaragua (NICADAPTA), which received an ASAP grant to integrate climate change adaptation into the project design, aimed to improve the incomes and quality of life for rural families and reduce their vulnerability to impacts of climate change by adding value to their coffee and cocoa harvest and increasing access of these products to markets.

Unfortunately, along with COVID-19, the project area was hit by two hurricanes. Largely as a result of these hardships, impact assessment surveys indicated that although beneficiaries were clearly more aware of the potential future impacts of climate change and adaptation options than the comparison group, they did not perceive themselves as being more resilient. There was also little indication that beneficiaries had a higher rate of adoption of good agricultural practices or had greater crop diversity than the control group.

Nevertheless, despite these difficulties, the assessment found that a substantial percentage of the beneficiaries had adopted new infrastructure. On individual farms, there was a modest but still significant 7 percentage point increase in the adoption of improved water infrastructure, and for cooperatives supported by the project there was a substantial 63 percentage point increase in the adoption of improved post-harvest infrastructure for cocoa and coffee. Beneficiaries also saw a 28 per cent increase in productive assets. All of these findings indicate an acceptable increase in overall resilience capacities for NICADAPTA beneficiaries.

Adaption to Climate Change in the Mekong Delta in Ben Tre and Tra Vinh Provinces (AMD) project in Viet Nam

The Adaption to Climate Change in the Mekong Delta in Ben Tre and Tra Vinh Provinces (AMD) project in Viet Nam worked to strengthen the adaptive capacity and resilience of target communities and institutions so that they can better contend with climate change. As with the NICADAPTA, the project area experienced major climatic events, and this can explain why the impact assessment did not find that beneficiary households had a significantly higher perception of resilience than the comparison group. However, when looking at only farmers that suffered salt intrusion, the assessment found that rice, coconut and shrimp farmers in the treatment group had higher average value of harvest than households in the comparison group. Addressing climate-change induced salt intrusion among beneficiaries was one of the main objectives of AMD.

These findings can be linked to the fact that, according to the assessment, over 60 per cent of households in the treatment group applied some climate-smart practices compared to 30 per cent of the control households. Along with this high rate of adoption and greater resilience to salt intrusion, the assessment also found that the project beneficiaries surveyed had on average increased their net income by 31 per cent compared to the comparison group (with some differences across provinces). The assessment team also recorded improvements in all FIES indicators and in the overall FIES score, as well as on women's empowerment indicators.

The clear impact this project has had on strengthening the climate resilience of small-scale agricultural producers in the Mekong Delta has led to an agreement between the Government of Viet Nam and IFAD to finance and implement a follow-up project, the Climate Smart Agriculture Transformation Project (CSAT) for the Ben Tre and Tra Vinh provinces, which runs from 2021 to 2026.

Pro-Poor Value Chain Development in the Maputo and Limpopo Corridors (PROSUL) in Mozambique

Pro-Poor Value Chain Development in the Maputo and Limpopo Corridors (PROSUL) in Mozambique was designed to contribute to the improvement of livelihoods and climate resilience of over 20,000 beneficiary households in southern Mozambique. Its specific development objective was to increase the returns to smallholders from improved marketing of increased production volumes and quality of three agricultural value chains: horticulture, cassava and red meat.

The impact assessment focused only on the cassava and red meat value chains. Because cassava is a widely cultivated crop in the project area, which is prone to drought, the cassava component was particularly important for increasing the resilience of small-scale farmers to climate-change induced shocks. In fact, between 2015 and 2017, the project was extended to cover more areas as a drought associated with El Niño became exceptionally severe. This drought is ongoing and is jeopardizing the food security of millions of people.

In collaboration with the Mozambique Agrarian Research Institute (IIAM), PROSUL supported the development of a commercially based system for multiplying new high-yield, drought- and pest-resistant cassava varieties, and with ASAP financing, the project promoted the sustainable intensification of the cassava production. The assessment found

that the project managed to increase the rate of uptake of improved cassava varieties by 65 percentage points, which is quite substantial. Beneficiary households were also significantly more likely than farmers in the comparison group to use good agricultural practices (e.g. intercropping, crop rotation, improved pest control and weed management). These outcomes led to a 36 per cent increase in cassava yield and a 38 per cent increase in the cassava harvest among beneficiary households compared with the comparison group. The increased production had a positive impact on food security, as beneficiaries were able to significantly increase their number of meals consumed per day compared with the comparison group. The PROSUL project also managed to increase beneficiaries' access to agricultural output markets and the number of income sources available to them compared to the comparison group. These outcomes are expected to further increase their resilience to climate-change related shocks. However, the assessment also noted that more work needs to be done to translate increased production into greater economic mobility, as cassava prices remain low.

The impact assessment of the cassava component shows that project beneficiaries have become more resilient as a result of the project even if the aforementioned indicators on subjective resilience were not collected by the project management unit for PROSUL. The COVID-19 pandemic and related travel restrictions made face-to-face data collection very difficult, and the implementation of a comprehensive survey on resilience to shocks was not possible. Also, because the cassava component concentrated on a specific crop, the impact on crop diversity was not expected to be significant.

Livestock and Pasture Development Project (LPDPII) in Tajikistan

The second phase of the Livestock and Pasture Development Project (LPDPII) in Tajikistan was designed to reduce poverty by enhancing livestock productivity and climate resilience in a sustainable manner and was strongly aligned with the priorities of the Third National Communication of Tajikistan to UNFCCC, which identifies agriculture and livestock among the sectors most vulnerable to climate change.

Increased livestock productivity, which is closely linked to efficient use of pastures, requires a strong focus on the pasture/natural resource management. Consequently one of the main components of the LPDPII was dedicated to pasture development and diversification for vulnerability reduction. One aspect of this component was the implementation of a rotational plan for pasture management, which was expected to restore degraded pastureland and expand the land available for pasture over the long term. The assessment found that beneficiary households had adopted better pasture management practices. They are 21 percentage points more likely to feed their livestock from protected rangeland in the summer, and during winter, they are 23 percentage points more likely to use stalls to house their livestock than the comparison group. As a result of these and other project outcomes, the assessment team found that project beneficiaries achieved a 110 per cent increase in income from livestock compared to the control group; a 98 per cent increase in milk production; and a 30 per cent increase in cattle weight.

A particularly important finding was that the livestock assets of the treatment group had declined by 29 per cent compared to the comparison group. This may seem to be a negative impact, but it actually points to the positive impact on pasture management and climate change mitigation. Beneficiary households are placing a greater priority on

increasing productivity of their existing livestock rather than increasing the size of their herd. Increasing total productivity from fewer animals puts less pressure on already degraded pastures and reduces the ecological footprint of livestock by decreasing emission of greenhouse gases, particularly methane. This was likely possible thanks to the technical assistance LPDPII provided with regard to feeding practices, veterinary services, water points and reproduction, the activities it carried out with pasture user unions to increase social capital, the rise in awareness of the importance of restoring degraded pasture and lowering livestock producers' ecological footprint.

Another finding of note is that household surveys did not indicate that the treatment group viewed themselves as any better able to recover from shocks (climatic and non-climatic) than the comparison group. On the face of it, this would show a lack of impact. However, a survey on how many shocks both groups actually faced during the project period, found that the percentage of beneficiaries in the treatment group that faced climate shocks (11 per cent) was almost half that of the comparison group (21 per cent). For shocks of all kinds, 54 per cent of the treatment group faced a shock, compared to 72 per cent for the control group. This is a significant difference. This finding suggests that the project has enabled beneficiaries to anticipate and prevent "potential" shocks before they become "real". These results also suggest that the project may have prevented noticeable climatic shocks from affecting treated households in the first place vis-à-vis the comparison group. This is a critical aspect of resilience.

Evidence and impacts on adaptation and resilience

The findings of the impact assessments show that the development options IFAD has been investing in to support vulnerable rural communities in adapting to climate change and building their climate resilience have improved the lives and livelihoods of the beneficiaries in several ways. IFAD's impact assessments and analyses document evidence and increase our understanding of the adaptation options best suited to different contexts. Moving forward, resilience will remain a key focus area for IFAD impact assessments. Enhancing resilience will be built on understanding the drivers and motivations of small-scale agricultural producers, agribusinesses and rural microenterprises. Furthermore, IFAD shall design pathways to incentivize adopting climate-smart/resilient practices among rural industries and communities. As an area of research, resilience provides significant opportunities to maximize impact on a wider scale in many different contexts.

Conclusion

IFAD projects are meeting and surpassing their performance ratings targets in terms of adaptation to climate change and environment and natural resource management. The continued improvement in the adaptation to climate change ratings has justified a more ambitious performance target for IFAD12. Progress is on pace to reach ASAP targets, and for several indicators, the results have exceeded expectations. Similarly, for GEF-funded projects, results for climate change adaptation, mitigation and other benefits are positive. Overall ex ante estimates indicate that IFAD projects are achieving significant negative carbon balances. Impact assessments have highlighted the different ways IFAD projects are having strong positive impacts on the livelihoods of rural communities.

©IFAD/Ruvin de Silva

IFAD climate publications in 2021

Renewable Energy Technology for Smallholder Farmers - Collaboration with Local Companies for Adaptive Agriculture in Cambodia - Good practice brief
www.ifad.org/fr/web/knowledge/-/renewable-energy-technology-for-smallholder-farmers-2

Quantifying the extent of shifting cultivation - An urgent need to revisit and revise land use and land cover classifications - Policy brief. IFAD and the International Centre for Integrated Mountain Development (ICIMOD)
https://lib.icimod.org/record/35256

Ensuring seasonal food availability and dietary diversity during and after transition of shifting cultivation systems to settled agriculture - Policy brief. IFAD and ICIMOD
https://lib.icimod.org/record/35254

Shifting cultivation landscapes in transition: Where are the forests? Safeguarding forest cover and ecosystem services while transitioning shifting cultivation to resilient farming systems - Policy brief. IFAD and ICIMOD
https://lib.icimod.org/record/35255

Low carbon livestock development in Kyrgyzstan - Quantifying the future impact of the Regional Resilient Pastoral Communities Project on greenhouse gas emissions - Technical note
www.ifad.org/en/web/knowledge/-/low-carbon-livestock-development-in-kyrgyzstan

Pasture condition maps in Kyrgyzstan - Technical note
www.ifad.org/en/web/knowledge/-/pasture-condition-maps-in-kyrgyzstan

Building climate resilience in the Asia Pacific region - ASAP technical series
www.ifad.org/en/web/knowledge/-/building-climate-resilience-in-asia-pacific-region

Nature-based solutions (NbS) - ASAP technical series
www.ifad.org/en/web/knowledge/-/asap-technical-series-nature-based-solutions

Leveraging Policy Tools to Improve Impact of Financial Instruments in Sustainable Agriculture, Forestry and Other Land Use (AFOLU) - Case Studies from the Global Innovation Lab for Climate Finance
www.ifad.org/en/web/knowledge/-/leveraging-policy-tools-to-improve-impact-of-financial-instruments-in-sustainable-agriculture-forestry-and-other-land-use-afolu-

Enhancing women's resource rights for improving resilience to climate change
www.ifad.org/en/web/knowledge/-/enhancing-women-s-resource-rights-for-improving-resilience-to-climate-change

Climate adaptation and mitigation measures for nutrition co-benefits in IFAD investments in Ghana - Research Report
www.ifad.org/en/web/knowledge/-/climate-adaptation-and-mitigation-measures-for-nutrition-co-benefits-in-ifad-investments-in-ghana

Climate adaptation and mitigation measures for nutrition co-benefits in IFAD investments in Lesotho - Research Report
www.ifad.org/en/web/knowledge/-/climate-adaptation-and-mitigation-measures-for-nutrition-co-benefits-in-ifad-investments-in-lesotho

Climate adaptation and mitigation measures for nutrition co-benefits in IFAD investments in Zimbabwe - Research Report
www.ifad.org/en/web/knowledge/-/climate-adaptation-and-mitigation-measures-for-nutrition-co-benefits-in-ifad-investments-in-zimbabwe

Food-system interventions with climate change and nutrition co-benefits: a literature review - Research Report
www.ifad.org/en/web/knowledge/-/food-system-interventions-with-climate-change-and-nutrition-co-benefits-a-literature-review

Transitioning shifting cultivation to resilient farming systems in South and Southeast Asia - Guidelines for policy makers and development practitioners - Guidance notes
www.ifad.org/en/web/knowledge/-/transitioning-shifting-cultivation-to-resilient-farming-systems-in-south-and-southeast-asia

The Biodiversity Advantage: Thriving with nature - biodiversity for sustainable livelihoods and food systems - Research report
https://www.ifad.org/en/web/knowledge/-/biodiversity-advantage-report

What can smallholder farmers grow in a warmer world? Climate change and future crop suitability in East and Southern Africa - Research report
www.ifad.org/en/web/knowledge/-/climate-change-and-future-crop-suitability-in-east-and-southern-africa

Climate Action Report 2020 - Research report
www.ifad.org/en/web/knowledge/-/climate-action-report-2020

59

What to expect in the next Climate Action Report

Updates on new IFAD12 targets

CAR 2022 will report on the progress being made to reach the new climate finance target for IFAD12: at least 40 per cent of the projects and activities funded through the PoLG are to be climate-focused, as well as the new the performance rated target of completed projects receiving ACC ratings of 4 or higher, which will increase to 90 per cent to be in line with the current ENRM target.

Implementation of the IFAD Strategy on Biodiversity

As noted, the IFAD Strategy on Biodiversity was approved in 2021. Next year, the strategy will become operational. CAR 2022 will provide the first update on the implementation of the IFAD Strategy on Biodiversity and its implications on the Fund's investments in climate and the other mainstreaming themes.

The Resilience Framework

As noted earlier, there are many roads to resilience. This can create many opportunities for innovative investments that can deliver multiple benefits. But it also creates challenges for measuring impacts related to resilience in a way that can be easily compared between projects and contribute to accurate impact assessments.

The Institute of Education (IOE) Thematic Evaluation noted that there was a need to establish a corporate conceptual framework for objectively assessing climate resilience and tracking resilience outcomes. Even before the release of the IOE Thematic Evaluation, IFAD management had become aware of this need and started to work on it.

In 2021, IFAD established a Resilience Working Group to develop a framework that could align and standardize the different approaches to resilience measurement that have been used the by Environment, Climate, Gender and Social Inclusion (ECG), the Sustainable Production, Market and Institutions (PMI), and Research and Impact Assessment (RIA) divisions. The Working Group has developed a resilience framework that can be used to assess in a coherent and consolidated manner the whole set of 'benefits' that accrue to rural communities thanks to IFAD's multiple-benefit investment strategy. This includes the social and economic factors that determine the capacity of IFAD's beneficiaries to face a range of climatic and non-climatic shocks and stressors and adapt to a changing climate. The new resilience framework will be piloted in the coming year, and the results and lessons learned will be included in future reports.

Annex: IFAD climate finance by project
(January 2021 to December 2021)

Region	Country	Project acronym	Approval year	Total approved amount (US$)	IFAD total approved amount (US$)	IFAD total climate finance (US$)	IFAD climate finance share (%)	IFAD total adaptation finance (US$)	IFAD total mitigation finance (US$)
APR	Afghanistan	AIWRDP	2019	403 040 000	40 000 000	25 231 000	63	25 231 000	
APR	Bangladesh	RMTP	2019	200 000 000	80 999 000	302 000	0	302 000	
APR	Cambodia	SAAMBAT	2019	146 844 000	54 386 000	38 622 000	71	38 622 000	
APR	China	H2RDP	2020	172 974 000	60 199 000	24 716 000	41	24 716 000	
APR	China	Y2RDP	2020	234 512 000	74 778 000	35 218 000	47	35 218 000	
APR	India	NAV	2020	421 872 000	39 401 000	20 653 000	52	20 653 000	
APR	India	CHIRAAG	2021	239 579 000	67 069 000	45 928 000	68	42 168 000	3 760 000
APR	India	REAP	2021	378 286 000	105 000 000	17 735 000	17	17 735 000	
APR	Indonesia	TEKAD	2019	702 027 000	34 355 000	566 000	2	66 000	
APR	Indonesia	UPLANDs	2019	151 435 000	50 000 000	41 297 000	83	41 297 000	
APR	Islamic Republic of Pakistan	GLLSP II	2020	72 801 000	63 155 000	9 935 000	16	9 935 000	
APR	Lao People's Democratic Republic	PICSA	2019	30 066 000	21 036 000	10 127 000	48	10 127 000	
APR	Maldives	MAP	2020	12 890 000	4 500 000	3 264 000	73	3 264 000	
APR	Nepal	VITA	2020	196 917 000	97 671 000	74 265 000	76	74 265 000	
APR	Pakistan	KPRETP	2021	185 822 000	84 190 000	13 548 000	16	13 548 000	

Annex. IFAD climate finance by project *continued*

Region	Country	Project acronym	Approval year	Total approved amount (US$)	IFAD total approved amount (US$)	IFAD total climate finance (US$)	IFAD climate finance share (%)	IFAD total adaptation finance (US$)	IFAD total mitigation finance (US$)
APR	Samoa	SAFPROM	2019	30 290 000	3 610 000	2 583 000	72	2 583 000	
APR	Sri Lanka	SARP	2019	81 981 000	42 749 000	36 724 000	86	36 724 000	–
APR	Viet Nam	CSAT	2021	136 383 000	42 991 000	18 529 000	43	18 529 000	–
ESA	Angola	SREP	2019	150 001 000	29 755 000	14 827 000	50	14 827 000	
			2021	128 639 000	21 745 000	6 735 000	31	6 735 000	
ESA	Burundi	PRODER	2021	89 399 000	53 654 000	15 146 000	28	15 146 000	
ESA	Eritrea	IADP	2020	46 645 000	37 050 000	19 389 000	52	19 389 000	
ESA	Ethiopia	LLRP	2019	451 000 000	90 000 000	34 077 000	38	5 032 000	29 045 000
ESA	Ethiopia	RUFIP III	2019	305 799 000	40 000 000		0		
ESA	Kenya	KeLCoP	2020	93 501 000	54 750 000	22 906 000	42	22 906 000	
ESA	Kenya	RK-FINFA	2021	134 050 000	22 000 000	12 772 000	58	12 772 000	
ESA	Lesotho	SADP II	2019	62 000 000	5 000 000	2 500 000	50	2 500 000	
ESA	Lesotho	ROLL	2021	46 348 000	11 300 000	6 572 000	66	4 526 000	2 046 000
ESA	Madagascar	DEFIS	2021	196 998 000	83 500 000	20 921 000	25	20 921 000	
ESA	Malawi	TRADE	2019	125 358 000	70 011 000	14 775 000	21	14 775 000	
ESA	Mozambique	PRODAPE	2019	49 017 000	43 008 000	13 429 000	31	13 429 000	

Annex. IFAD climate finance by project *continued*

Region	Country	Project acronym	Approval year	Total approved amount (US$)	IFAD total approved amount (US$)	IFAD total climate finance (US$)	IFAD climate finance share (%)	IFAD total adaptation finance (US$)	IFAD total mitigation finance (US$)
ESA	Mozambique	PROCAVA	2019	72 452 000	42 001 000	19 600 000	47	19 600 000	
ESA	Rwanda	KIIWP2	2021	61 024 000	21 776 000	4 718 000	22	4 718 000	
ESA	Rwanda	PRISM	2019	45 642 000	14 904 000	1 335 000	9	1 335 000	
ESA	Rwanda	KIIWP 1	2019	24 727 000	17 798 000	8 263 000	46	8 263 000	
ESA	South Sudan	SSLRP	2021	17 927 000	9 800 000	4 061 000	41	4 061 000	
ESA	Tanzania	AFDP	2020	77 417 000	58 842 000	14 104 000	24	14 104 000	
ESA	Uganda	NOSP	2019	160 805 000	99 560 000	16 209 000	16	16 209 000	
ESA	Zimbabwe	SACP	2021	67 865 000	35 687 000	14 061 000	39	14 061 000	
LAC	Argentina	PROSAF	2021	36 900 000	13 100 000	3 723 000	28	3 723 000	
LAC	Bolivia	CAMBIOSUR/ ACESSOS	2021	74 130 000	23 000 000	21 504 000	93	21 504 000	
LAC	Brazil	PCRP	2021	217 833 000	30 000 000	28 309 000	94	13 236 000	15 073 000
LAC	Cuba	PRODECAFE	2019	63 651 000	15 501 000	3 370 000	22	3 370 000	
LAC	Dominican Republic	PRORURAL Joven	2021	33 320 000	12 292 000	2 498 000	20	2 498 000	
LAC	Ecuador	DESATAR	2020	31 233 000	23 468 000	12 335 000	53	12 335 000	
LAC	Guatemala	GUATEINNOVA	2021	179 000 000	11 330 000	8 250 000	73	8 250 000	
LAC	Haiti	I-BE	2021	26 600 000	14 000 000	6 951 000	50	6 951 000	

Annex. IFAD climate finance by project *continued*

Region	Country	Project acronym	Approval year	Total approved amount (US$)	IFAD total approved amount (US$)	IFAD total climate finance (US$)	IFAD climate finance share (%)	IFAD total adaptation finance (US$)	IFAD total mitigation finance (US$)
LAC	Mexico	Resilient Balsas Basin	2021	55 000 000	38 440 000	22 427 000	58	936 000	21 491 000
LAC	Peru	Avanzar Rural	2019	71 464 000	23 969 000	7 982 000	33	7 982 000	
NEN	Djibouti	PGIRE	2020	14 501 000	6 553 000	4 198 000	64	4 198 000	
NEN	Egypt	STAR	2019	269 679 000	64 541 000	16 570 000	26	16 570 000	
NEN	Kyrgyzstan	RRPCP	2021	65 208 000	31 285 000	8 822 000	28	7 654 000	1 168 000
NEN	Moldova	TRRTP	2020	50 518 000	20 749 000	6 189 000	30	6 189 000	
NEN	Morocco	PRODER-Taza	2019	92 971 000	36 691 000	25 024 000	68	25 024 000	
NEN	Sudan	SNRLP	2019	86 051 000	62 945 000	23 793 000	38	23 793 000	
NEN	Tajikistan	CASP+	2021	72 468 000	13 500 000	13 011 000	72	13 011 000	
NEN	Tunisia	IESS-Kairouan	2019	51 270 000	23 800 000	14 617 000	61	14 617 000	
NEN	Uzbekistan	ADMP	2019	47 000 000	47 000 000	11 413 000	24	11 413 000	
WCA	Benin	PRIMA	2020	62 828 000	14 700 000	6 264 000	42	4 615 000	1 649 000
			2021	2 500 000	2 500 000	724 000	58	724 000	
WCA	Burkina Faso	SD3C	2020	42 733 000	1 235 000	894 000	72	894 000	
WCA	Burkina Faso	PAFA 4R	2019	139 655 000	69 655 000	32 738 000	47	32 738 000	
WCA	Cameroun	PADFA II	2019	59 886 000	47 047 000	16 667 000	35	16 667 000	–

Annex. IFAD climate finance by project *continued*

Region	Country	Project acronym	Approval year	Total approved amount (US$)	IFAD total approved amount (US$)	IFAD total climate finance (US$)	IFAD climate finance share (%)	IFAD total adaptation finance (US$)	IFAD total mitigation finance (US$)
WCA	Central African Republic	PRAPAM	2020	36 860 000	22 190 000	18 345 000	83	18 345 000	
WCA	Chad	RePER	2019	95 500 000	31 100 000	8 284 000	27	8 284 000	
WCA	Chad	SD3C	2020	5 500 000	5 000 000	2 500 000	50	2 500 000	
WCA	Chad	RENFORT	2021	103 283 000	26 183 000	4 975 000	19	4 189 000	786 000
WCA	DRC	PADRIR	2019	130 459 000	36 491 000	13 768 000	38	10 609 000	3 159 000
WCA	Gambia	ROOTS	2019	80 000 000	21 270 000	8 607 000	40	8 263 000	344 000
WCA	Ghana	AAFORD	2019	69 665 000	14 998 000	2 007 000	13	2 007 000	
WCA	Ghana	PROSPER	2021	147 346 000	52 495 000	14 964 000	29	14 964 000	
WCA	Guinea	AgriFARM- HMG	2021	121 040 000	29 452 000	15 175 000	52	15 175 000	
WCA	Guinea Bissau	REDE	2019	65 767 000	16 160 000	6 883 000	43	4 248 000	2 635 000
WCA	Liberia	STAR - P	2019	61 888 000	22 991 000	6 520 000	28	4 732 000	1 788 000
WCA	Mali	SD3C	2020	23 685 000	23 685 000	12 133 000	51	12 133 000	
WCA	Mali	MERIT	2019	41 364 000	29 970 000	29 150 000	97	5 444 000	23 706 000
WCA	Mauritania	PROGRES	2020	50 000 000	23 696 000	11 578 000	49	1 320 000	10 258 000
WCA	Niger	PRECIS	2019	195 863 000	88 381 000	34 924 000	40	34 924 000	

Annex. IFAD climate finance by project *continued*

Region	Country	Project acronym	Approval year	Total approved amount (US$)	IFAD total approved amount (US$)	IFAD total climate finance (US$)	IFAD climate finance share (%)	IFAD total adaptation finance (US$)	IFAD total mitigation finance (US$)
WCA	Niger	SD3C	2020	5 000 000	5 000 000		0		
			2021	5 000 000	5 000 000	902 000	18	902 000	
WCA	Nigeria	VCDP	2019	77 834 000	50 000 000	13 669 000	27	13 669 000	
WCA	Nigeria	SAPZ	2021	541 214 000	49 970 000	16 351 000	33	16 351 000	
WCA	Republic of Congo	PAJE	2021	24 150 000	7 800 000		0		
WCA	Sao Tome	COMPRAN	2020	21 150 000	5 330 000	533 000	10	533 000	
WCA	Senegal	AGRI-JEUNES TEKKI NDAWI	2019	93 284 000	51 863 000	5 931 000	11	5 931 000	
WCA	Senegal	SD3C	2020	6 500 000	6 500 000		0		
WCA	Sierra Leone	AVDP	2019	57 062 000	28 500 000	5 734 000	20	5 734 000	
			2021	12 366 000	12 366 000	2 500 000	20	2 500 000	
WCA	Togo	PRIMA	2020	42 733 000	2 000 000	700 000	35	500 000	200 000

Footnote: Note that Yemen RLDP, which had been included in the CAR 2020 sample, was ultimately funded from alternative sources and not IFAD11 PoLG. As such, its climate finance no longer counts towards the IFAD11 commitment and the project has therefore been removed from the final IFAD11 sample.

HISTORY OF CLIMATE MAINSTREAMING IN IFAD

2012

Adaptation for Smallholder Agriculture Programme (ASAP) is launched with more than US$296 million programmed for 5.5 million smallholders, becoming one of the world's largest climate change adaptation programmes with a specific focus on smallholders.

2013

ASAP receives United Nations Framework Convention on Climate Change (UNFCCC) Momentum for Change Lighthouse Activity award for innovative financing.

2014

Social, Environmental and Climate Assessment Procedures (SECAP) replaces IFAD's Environmental and Social Assessment Procedures after rigorous review and consultation process.

IFAD approves the 10-point climate mainstreaming plan to deliver on IFAD's tenth replenishment (IFAD10) commitments to mainstream climate change into 100 per cent of project designs and COSOPs by 2018.

IFAD enters Learning Alliance for Adaptation in Smallholder Agriculture with CGIAR to produce evidence for science-based decisions in the context of climate change.

2015

IFAD's fifth Strategic Framework (2016-2025) adopts "strengthen the environmental sustainability and climate resilience of poor rural people's economic activities" as one of three objectives in achieving "inclusive and sustainable rural transformation" for smallholders, including contributions to SDG 13 (climate action), SDG 14 (life under water) and SDG 15 (life on land), as well as to NDCs under the 2015 Paris Agreement.

2015

IFAD appointed as lead agency for the five-year GEF Integrated Approach Programme (IAP) on Fostering Sustainability and Resilience for Food Security in Sub-Saharan Africa, a US$106.4 million (total cost US$911.7 million with cofinancing) multi-agency programme in 12 African countries.

2015

Analysis of 13 ASAP projects using Food and Agriculture Organization of the United Nations (FAO) Ex-Ante Carbon-balance Tool (EX-ACT) indicates the potential mitigation co-benefits of up to 30 million tonnes of CO_2 equivalent sequestered/avoided over a 20-year time frame.

2016

Climate-related indicators are integrated into new core indicators of IFAD's Results and Impact Management System.

IFAD is accredited to the Green Climate Fund.

2018-2021
IFAD's eleventh replenishment (IFAD11) commitments

See major achievements.

2021

Environment and Climate Division becomes Environment, Climate, Gender and Social Inclusion Division to intensify integrated mainstreaming.

Gender assessment and learning review of ASAP highlight corporate mechanisms and increased learning as key to making climate-sensitive projects transformative in terms of gender outcomes.

IFAD and Green Climate Fund sign an Accreditation Master Agreement, opening the door for IFAD to submit funding proposals.

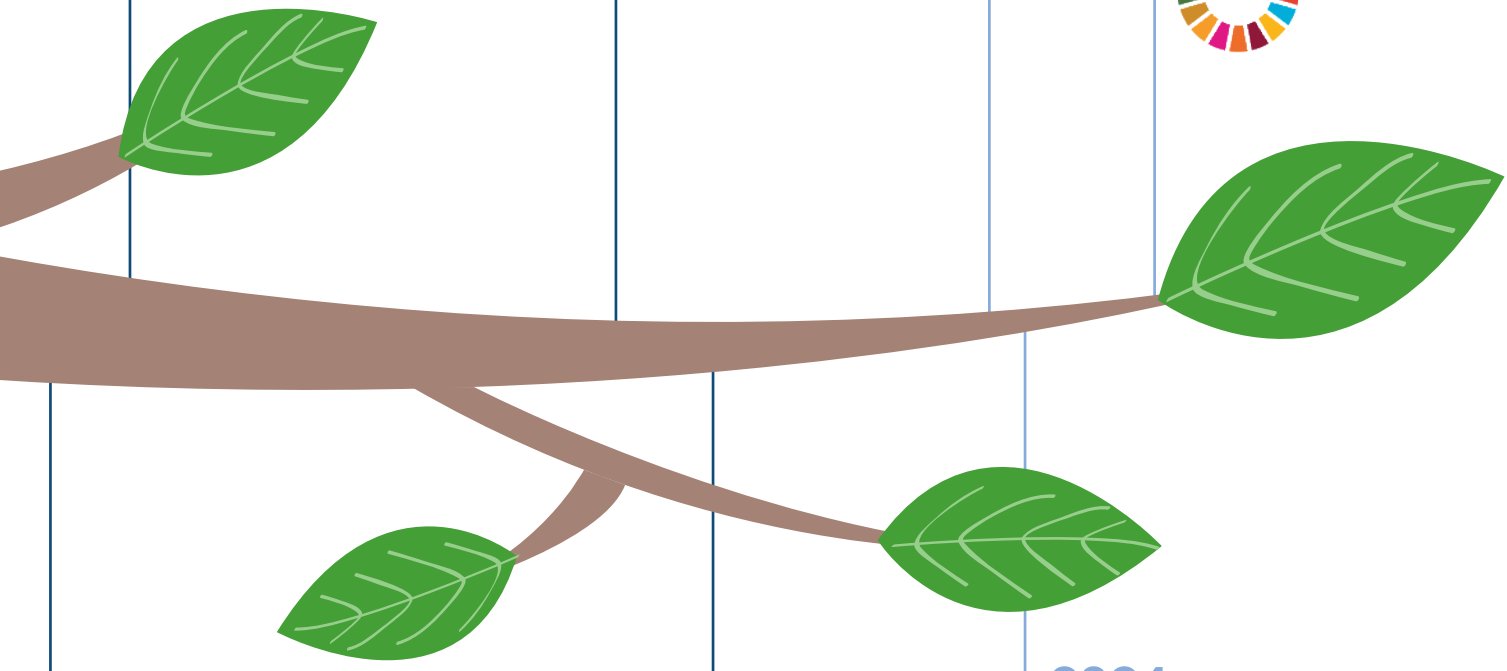
Updated IFAD Strategy and Action Plan on Environment and Climate Change 2019-2025 to be approved by the IFAD Executive Board.

2018

2022-2024
IFAD's twelfth replenishment (IFAD12) commitments

The world needs to meet all 17 SDGs by

2030



2017

100 per cent COSOPs and CSNs screen for climate risks based on application of SECAP.

ASAP2 launched to help poor rural household members to cope with the effects of climate change through upstream technical assistance.

SECAP updated with more guidance and to integrate mainstreaming themes.

2021

25 per cent of IFAD loans and grants to be "climate-focused".

24 million smallholders' resilience, including climate resilience, to be increased.

2024

28 million smallholders' resilience, including climate resilience, to be increased.

40 per cent of IFAD loans and grants to be "climate-focused".

International Fund for Agricultural Development
Via Paolo di Dono, 44 - 00142 Rome, Italy
Tel: +39 06 54591 - Fax: +39 06 5043463
Email: ifad@ifad.org
www.ifad.org

facebook.com/ifad
instagram.com/ifadnews
linkedin.com/company/ifad
twitter.com/ifad
youtube.com/user/ifadTV

November 2022

ISBN 978-92-9266-288-2