

Small farms, big impacts: mainstreaming climate change for resilience and food security



Small farms, big impacts: mainstreaming climate change for resilience and food security

Climate change threatens the natural resource base across much of the developing world. Climate change accelerates ecosystem degradation and makes agriculture more risky. As a result, smallholder farmers, who are so critical to global food security, are facing more extreme weather. Small-scale farmers are impacted more immediately by droughts, floods and storms, at the same time as they suffer the gradual effects of climate change, such as water stress in crops and livestock, coastal erosion from rising sea levels and unpredictable pest infestations.

Smallholder farmers and their families are particularly vulnerable because they have few assets to fall back on and limited ability to recover from climate extremes. Exposure to such shocks can trap small-scale farmers in poverty and undermine their efforts to escape it.

These effects are already happening all around the world. Increasing the resilience of smallholder farmers is therefore a matter of urgency. Because climate change undermines poverty reduction and development gains, IFAD is prioritizing the mainstreaming of climate adaptation throughout its programmes and projects.

The IFAD response

IFAD's clients are poor smallholder farmers in developing countries. These smallholders manage vast areas of land (some 80 per cent of farmland

in sub-Saharan Africa and Asia) and are essential to food security. They inhabit some of the most vulnerable and marginal landscapes such as hillsides, deserts and floodplains, and rely on climate-sensitive natural resources to make a living. Smallholders often lack secure tenure and resource rights, and access to markets and finance, and are often overlooked in global and national policy debates around climate change.

Even before climate change adaptation became a major topic of international debate, IFAD's investments were supporting smallholder farmers in drought- and flood-prone areas, and promoting adaptive technologies such as agroforestry, conservation agriculture and water harvesting. At least one third of IFAD's regular investments are already used for activities that are directly relevant for climate change adaptation. For example, IFAD has funded projects to combat land degradation in the Sahel region for over three decades, providing important support for farmers to adapt to drought. The "re-greening of the Sahel" has been highly successful, which IFAD supported through the grant, "Restoration of degraded land for food security and poverty reduction in East Africa and the Sahel: taking successes in land restoration to scale".

Over the years, as climate-related risks have impacted more visibly on the IFAD investment portfolio, IFAD has adopted more targeted responses to extreme weather and climate change impacts. Examples include the development of a drought early warning system in Ethiopia¹ and index-based livestock insurance in Mongolia.²

1 http://operations.ifad.org/web/ifad/operations/country/project/tags/ethiopia/1237/project_overview

2 <http://www.ifad.org/operations/projects/design/102/mongolia.pdf>

Today, the increasing need for climate risk management and climate change adaptation is reflected in IFAD business processes. The IFAD 2010 Climate Change Strategy set the goal of mainstreaming climate change adaptation throughout the IFAD investment portfolio. It identified a need for explicit attention to climate-related risks in IFAD country programmes (results-based country strategic opportunities programmes, or COSOPs), project and policy design and implementation. It also identified an opportunity for IFAD to develop a financing mechanism to help dedicated climate finance reach smallholder farming communities. This potential was realized in 2012 with the launch of IFAD's Adaptation for Smallholder Agriculture Programme (ASAP).

What is ASAP?

ASAP is a dedicated financing window that receives climate finance from multiple donors and blends this with core IFAD resources to make bilateral climate finance work for smallholder farmers.

ASAP is driving a major scaling up of successful "multiple benefit" approaches to smallholder agriculture, which sustainably improve production while at the same time reducing climate-related risks. In doing so, ASAP is blending tried and tested approaches to rural development with new adaptation know-how and technologies. Under ASAP, this will increase the capacity of at least 8 million smallholder farmers to expand their livelihood options in an uncertain and rapidly changing environment.

ASAP has become the largest global adaptation programme for smallholder farmers. To date, it has received US\$357 million in pledges and contributions from eight bilateral donors (Belgium, Canada, Finland, Netherlands, Norway, Sweden, Switzerland and United Kingdom). ASAP funds are currently programmed as grant contributions to projects in highly vulnerable countries – 36 of them to date. As of May 2014, the IFAD Executive Board had approved US\$123 million of ASAP grants in 13 countries. These investments were in addition to US\$805 million of regular IFAD loans and grants and cofinancing from IFAD's many partners.

Since 2003, IFAD has helped governments to access environmental finance from the Global Environment Facility (GEF), Least Developed Countries Fund (LDCF) and Special Climate Change Fund (SCCF). Projects that are co-funded by these multilateral grants help countries preserve global public goods, including biodiversity, sensitive ecosystems, arable land and the global climate. As of March 2014, IFAD had supported 43 projects funded by GEF, LDCF and SCCF, with a total value of US\$180 million. These investments are integrated with US\$385 million of IFAD loan and grant programmes to implement activities related to rural development, environmental sustainability and climate change adaptation.

Climate mainstreaming: improving results

IFAD's experience of climate integration shows that it deepens and broadens the impact of rural development projects, benefiting smallholder farmers and rural communities at different levels:

- **Better analysis** of climate risks and vulnerabilities. More project designs are taking climate-related threats such as storms, droughts, floods, sea-level rise and temperature extremes into account. Using tools such as climate hazard maps, climate change scenarios and geographic information systems (GIS), projects are now able to evaluate "hot spots" for climate risk and allocate their investment priorities accordingly. *Example: In Yemen, a climate risk analysis is influencing the location and engineering design of rural feeder roads.*
- **More innovation.** Adapting to new and emerging risks requires access to innovative knowledge and technology, including when smallholders are already facing a changing context due to increasing market integration. *Examples: A salinity monitoring system is tracking the effects of sea-level rise on rice production in Viet Nam; improved building codes and energy technology for post-harvest processing hubs in Rwanda allow producers to buffer the effects of extreme weather and pest infestations.*
- **Faster scaling up** of sustainable agriculture techniques. IFAD's track record in natural resource management provides many platforms to scale up adaptive technologies. *Examples: Expanding agroforestry in coffee and cocoa plantations in Nicaragua; increasing watershed management in the Plurinational State of Bolivia; intensifying sustainable rangeland management in Kyrgyzstan and Lesotho.*

Including gender perspectives in climate adaptation

Harnessing the role of women as agents of change can fundamentally strengthen the resilience of households, communities and ecosystems. IFAD projects increasingly apply a gender-differentiated approach, supporting a number of activities to harness women's empowerment and gender equality for climate change adaptation:

- carrying out vulnerability and capacity assessments to understand the different priorities of women and men, disaggregated by age (Nepal)
- prioritizing households headed by women as a target group for vulnerability reduction (Djibouti, Kyrgyzstan)
- increasing women's asset base and supporting livelihood diversification to increase their resilience to extreme weather events (Nigeria)
- providing for ethnic minority women to be represented in key committees and institutions that are relevant to decision-making and policy dialogue on climate risk management (Viet Nam)
- offsetting the strenuous collection of firewood by introducing innovative renewable energy sources (such as biogas or solar energy), which frees time for other activities, counters deforestation and creates a cleaner, healthier and safer energy source (Mali)
- training women as veterinarians to tackle climate-related livestock diseases, including foot-and-mouth disease and parasites (Kyrgyzstan).



Building climate-resilient value chains

Climate change introduces new dimensions of risk to agricultural value chains – from production to harvesting, storage, processing and access to markets. IFAD-supported value chain projects are supplementing their designs with climate risk analyses to identify which locations, commodities and processes in a particular chain are most affected. This enables project teams to prioritize the most appropriate risk management actions. Examples from the ASAP-supported portfolio are Lesotho (wool and mohair), Mozambique (cassava, vegetables and red meat), Nicaragua (coffee and cocoa) and Rwanda (maize, beans, cassava, Irish potatoes and dairy).

Adapting to Markets and Climate Change Project (NICADAPTA)

In Nicaragua's northern highlands, where coffee represents around one quarter of agricultural revenues, climate change is already affecting coffee farmers. It is projected that temperatures in the country will increase by an average of 1.0°C by 2020, and 2.3°C by 2050; rainfall is expected to decrease by 70-100 millimetres by 2020, and by 100-130 millimetres by 2050. As a result, the future of Nicaragua's coffee exports is in jeopardy. Smallholder coffee farmers need support to shift towards resilient practices such as new shade-grown coffee varieties, or switch to cocoa, which is more adaptable and robust in a situation of variable climate patterns. The Government of Nicaragua, with the support of IFAD, is responding by introducing water efficiency and crop diversification measures into the cocoa and coffee value chains to buffer the effects of rising temperatures, and also strengthening the availability of weather information to ensure better preparedness for extreme weather events.

Progress so far

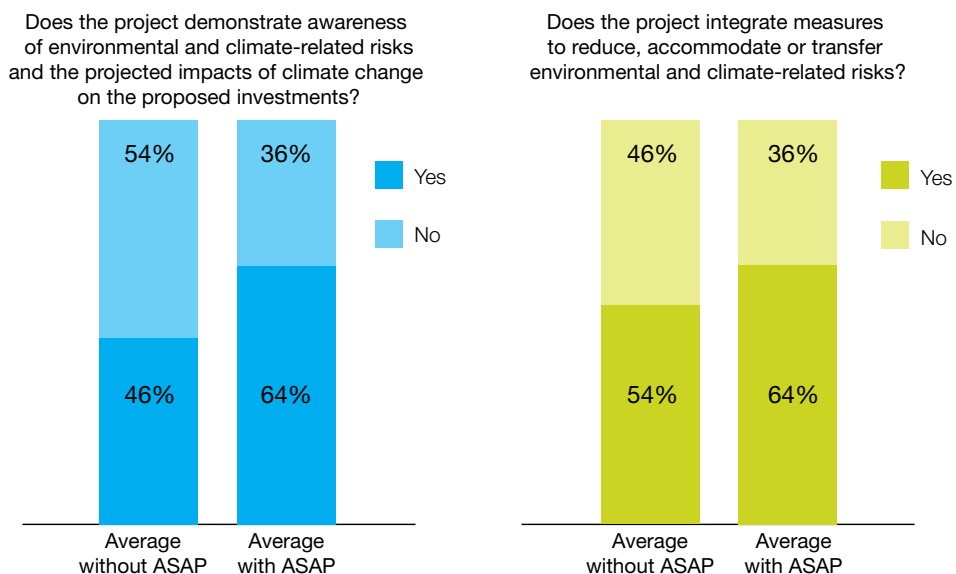
IFAD has made excellent progress in mainstreaming climate adaptation, with significant improvements so far during IFAD9:

- Half of all new COSOPs and a third of all new projects fully integrate climate change aspects into their design.
- Portfolio review guidelines have been updated to help project teams review climate vulnerability issues.
- A climate marker has been introduced into IFAD’s quality assurance (QA) process, which appraises the climate risk awareness and sensitivity of each investment design before it is presented to the IFAD Executive Board.
- Climate adaptation indicators have been added to IFAD’s Results and Impact Management System (RIMS).

- One third of IFAD professional staff have participated in corporate training courses on climate change, ASAP briefings or relevant e-learning courses.

The IFAD QA process provides a benchmarking mechanism to evaluate IFAD’s corporate progress in climate mainstreaming. In 2013, a set of new climate markers were incorporated in QA reviewer questionnaires to evaluate the responsiveness of IFAD investment designs to climate risk issues. Table 1 shows that the inclusion of ASAP-supported investment actions into one third of new 2013 project designs has significantly increased the responsiveness of IFAD investment programmes to climate-related risks – from 46 per cent (without ASAP) to 64 per cent (with ASAP). Around half of these designs were already integrating measures to reduce climate-related risks.

Table 1: Analysis of climate markers in the IFAD QA process



Source: IFAD/ECD, July 2014. Sample size: 22 investment designs between September 2013 and June 2014.





IFAD's way forward on climate mainstreaming

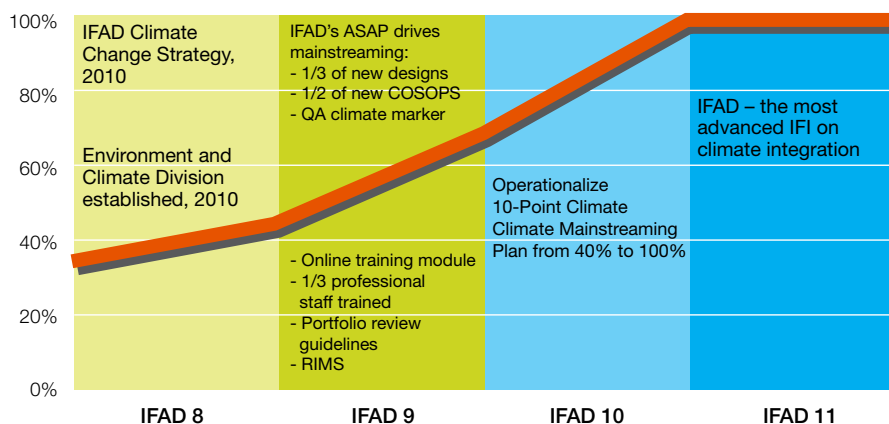
Building on the recent mainstreaming progress that has been catalysed by ASAP, IFAD is proposing a concrete plan to integrate climate change adaptation into 100 per cent of its investment portfolio. Implementation of this plan will commence from 2015.

10-point climate mainstreaming plan

1. **Climate risk screening** integrated into the quality enhancement (QE) process for all IFAD projects and COSOPs.
2. Phase 2 of **IFAD staff training** on climate integration rolled out: tailored climate learning seminars for all key divisions.
3. An **IFAD climate champion** appointed to help guide and promote the mainstreaming agenda.
4. **Increased technical support for climate mainstreaming** through deeper partnerships with knowledge and technical service providers, and increased technical staff capacity.
5. **Use of GEF and other cofinancing** resources expanded.
6. Increased use of **IFAD grants** as a tool for climate mainstreaming in IFAD's work at the regional and country level.
7. A scaled-up use of **earth observation (EO) and GIS** to improve project targeting, monitoring and impact evaluation.
8. Appraise the utility of a **climate vulnerability index** for the allocation of climate finance.
9. **Expanded communication and knowledge-sharing** on lessons and results from IFAD's climate-related work, with the objective of mobilizing greater climate finance for smallholders.
10. **Increased role of IFAD in managing climate finance**, mobilizing funds from climate sources in a diversity of actual and potential channels, including:
 - increasing core contributions to IFAD to cover the additional cost of climate mainstreaming
 - attracting additional complementary contributions
 - attracting supplementary contributions to ASAP
 - mobilizing multilateral funding sources (Adaptation Fund, Green Climate Fund, GEF, LDCE, SCCF).

Table 2: IFAD's plan to reach 100 per cent climate mainstreaming

Climate mainstreaming



IFAD invests in rural people, empowering them to reduce poverty, increase food security, improve nutrition and strengthen resilience. Since 1978, we have provided about US\$15.8 billion in grants and low-interest loans to projects that have reached some 430 million people. IFAD is an international financial institution and a specialized United Nations agency based in Rome – the UN’s food and agriculture hub.



International Fund for Agricultural Development

Via Paolo di Dono, 44 - 00142 Rome, Italy

Tel: +39 06 54591 - Fax: +39 06 5043463

E-mail: ifad@ifad.org


www.ifad.org

www.ruralpovertyportal.org

 ifad-un.blogspot.com

 www.facebook.com/ifad

 [instagram.com/ifadnews](https://www.instagram.com/ifadnews)

 www.twitter.com/ifadnews

 www.youtube.com/user/ifadTV

November 2014

