Launched in 2012, the Adaptation for Smallholder Agriculture Programme (ASAP) channels climate and environmental finance to enable smallholder farmers who participate in IFAD projects to increase their resilience. Through ASAP, IFAD is systematically integrating climate resilience into the overall IFAD portfolio.

**Mali**

Fostering Agricultural Productivity Project – Financing from the Adaptation for Smallholder Agriculture Programme (PAPAM/ASAP)

**Issues**

Mali is one of the Sahelian countries hardest hit by climate change. Climate trends show an increase in the average temperature across the country, a gradual decrease in mean annual rainfall, and an increase in the frequency and magnitude of extreme weather events such as droughts, floods and strong winds.

More specific impacts on rain-fed farming systems, especially cotton and maize in the Sikasso and Kayes regions, include late rains and shortened growing seasons. Even though average annual rainfall is decreasing overall, episodes of heavier rains following longer dry periods cause floods, soil erosion and destruction of rural infrastructure, including irrigation schemes and roads. Intense droughts in the north intensify migration of people and animals to the south, where human-induced pressure on natural resources then increases. This leads to deforestation, clearing of land for agriculture, overuse of soil and loss of biodiversity. A further consequence of this dynamic are lower yields, a reduced availability of wild food, the disruption of production methods and an overall increase in household poverty and food insecurity. Conflicts for access to natural resources are becoming more common.

**Actions**

PAPAM focuses on irrigation, water management and sustainable land management at plot level to increase the yield per hectare. However, promoting climate-resilient agriculture requires an ecosystems approach beyond the plot. An approach focused on irrigated plots alone can be ineffective if the deforestation surrounding the

**Project Summary**

Total cost: US$173.4 million
Approved IFAD loan: US$31.7 million
ASAP grant: US$9.9 million
Approved IFAD grant: US$0.3 million
Cofinancing: World Bank/IDA US$70.0 million; European Union US$19.5 million; Global Environment Facility US$8.1 million
Other contributions: Republic of Mali US$27.7 million; Beneficiaries US$6.2 million
Project period: 6 years (2012-2017); ASAP funding: 4 years (2014-2017)
Executing agency: Ministry of Agriculture
Beneficiaries: 1,710,000 smallholder farmers (ASAP: 65,000)
Project objectives: To improve the climate resilience of smallholders and ecosystems targeted by PAPAM.
watershed causes soil degradation, siltation and flooding during exceptional rainfall events. These events may also cause the destruction of rural infrastructure and riverbanks, which threaten the irrigated plots and cause inaccessibility in some areas.

ASAP financing complements PAPAM and provides smallholder farmers with complementary adaptation technologies and services. These include:

- access to renewable energy sources to reduce pressure on forest areas
- capacity development of civil society and government institutions to use climate information and planning tools
- an institutional environment at the national level that facilitates access to information on climate change trends and impacts (for example, alignment between the project environmental monitoring system and the national forest information system).

ASAP-funded activities will support three of the project’s components:

- **Transfer of technology and producer services.** Innovative renewable energy activities, such as various types of biogas digesters, with or without solar equipment, will be piloted to alleviate pressure on forest cover. Based on results obtained in an 18-month test phase, the best performing activities will be scaled up.

- **Irrigation infrastructure.** Participatory processes at the village level will be undertaken to guide collective investments financed by the project. This will result in community-based climate change adaptation projects, which will reforest degraded watersheds, protect irrigated areas from flooding and regenerate low groundwater tables. Training will be provided to disseminate climate information. The creation and training of land tenure committees and local ‘meteorological assistance groups’ will be supported.

- **Programme approach and sector monitoring.** To assist government coordination and policy dialogue among various actors in the agriculture and climate change sectors, ASAP financing will support the development and updating of policies and strategies in the area of climate change. Relevant actors and institutions will be trained, and data collection for the monitoring of climate change impacts on agricultural productivity and food security will be facilitated.

## EXPECTED IMPACTS

The project will increase the availability of adaptation assets and knowledge, which will enable target households to cope with the changing climate situation. The project will achieve the following impacts:

- The installation of biogas digesters reduces women’s workload and pressure on forest resources, with consequent reduction of risk of soil erosion and decline in yields due to increasing rainfall intensity.
  - 90 per cent of women reduce their daily workload.

- At the community level, construction of infrastructure, such as stabilized riverbanks, contour bunding or terracing, reduces the effects of flooding and erosion.
  - At least 2,000 hectares of agro-ecosystems are protected against erosion and 1,500 hectares of rice fields are protected against siltation.

- The project has a significant impact at the community level by helping communities to integrate climate change adaptation into local planning and monitoring.
  - 30 communal adaptation plans are integrated into local development plans and implemented.
  - 30 communal forest monitoring maps are produced annually.

- The project increases the capacity of smallholder farmers to collect, analyse and disseminate climate information, for example through access to seasonal weather forecasts in partnership with Mali Météo.
  - 10,000 farmers have better access to agro-climatic information.

- The project helps smallholder farmers to get involved in decision-making processes at the national and regional levels, specifically in environmental and climate change policies and strategies, such as the National Adaptation Plan. This has the double benefit of improving farmers’ access to information and enhancing the quality of policy processes. The systematic involvement of small producers enables policy processes to capitalize on local knowledge and strengthen the evidence base for decision-making.
  - 10 policy documents on adaptation to climate change are prepared in a participatory manner with farmers’ organizations.