

ADAPTATION FUND

Adaptation to Climate-Induced Water Stresses through Integrated Landscape Management – Bhutan
PHOTO CREDIT: ADAPTATION FUND

THEMATIC BRIEF | JUNE 2026

WATER AND SANITATION

The Adaptation Fund has supported developing countries with their adaptation needs by funding over **USD 430 million** in **58 projects** where supporting climate-resilient water supply and sanitation systems is the primary goal, representing **26%** of the Fund's total portfolio.

Through these grants, the Fund has strengthened the sustainable management of water resources and services in the face of increasing climate-related water risks such as **drought, flooding, and changing rainfall patterns**, while improving equitable and reliable **access to safe water and sanitation**.

These projects are expected to reach over **35 million beneficiaries**, increase and protect the incomes for over **10 million households**, and restore over **1.5 million hectares** of natural assets.

Figure 1.1: Share of Adaptation Fund portfolio mapped to 'water and sanitation', **by grant amount** (in % of total portfolio & USD million).

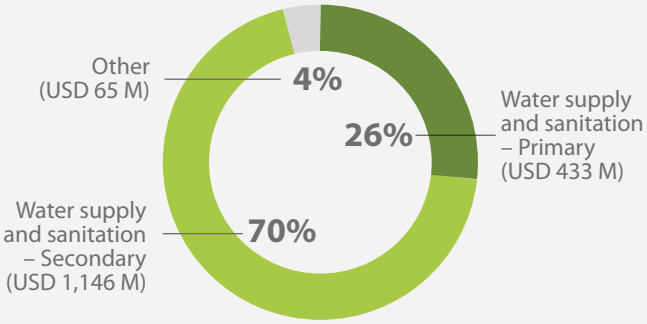
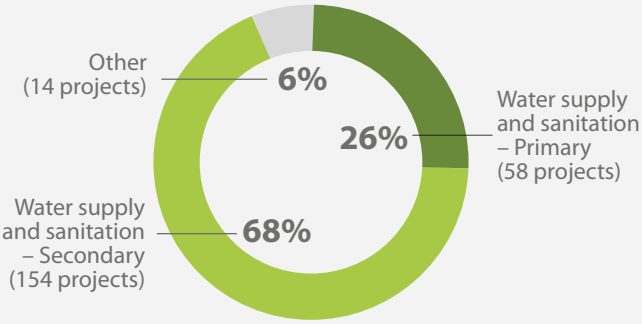


Figure 1.2: Share of Adaptation Fund portfolio mapped to 'water and sanitation', **by number of projects** (in % & number of projects).



Note: *Projects are categorized as "Primary" (directly focused on water and sanitation), "Secondary" (indirectly supporting water and sanitation without it being their primary focus), or "Other" (projects with no substantial water and sanitation component).*

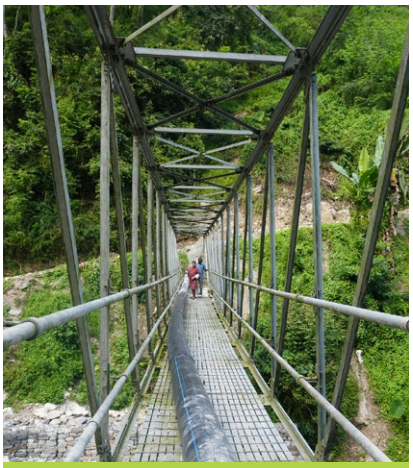


Restoring Marine Ecosystem Services by Rehabilitating Coral Reefs to Meet a Changing Climate Vuture – Mauritius and Seychelles.
PHOTO CREDIT: ADAPTATION FUND

Overview and Strategic Relevance

Water insecurity is one of the most direct and damaging consequences of climate change, affecting agriculture, health, economic productivity and stability. In response, the Global Goal on Adaptation (GGA), recognizes climate-resilient water supply, sanitation and water resource management as central priorities to strengthen climate resilience.

The Adaptation Fund contributes through practical, high-impact investments in climate-resilient infrastructure, integrated watershed management and expanded access to safe and reliable water services, targeting communities where vulnerability is highest and development needs are most acute.



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The Adaptation Fund Portfolio in Water and Sanitation

The Adaptation Fund's portfolio in water and sanitation spans several operational regions with the largest share of projects in **Asia-Pacific (38%)**, **Africa (34%)**, and **Latin America and the Caribbean (21%)**, alongside a smaller share in **Eastern Europe (3%)**. It also has a strong focus on highly vulnerable contexts, with **48%** of projects implemented in Least Developed Countries and Small Island Developing States.

Project delivery balances international expertise and direct access, with **38%** projects led by **National**, **10%** by **Regional**, and remaining by Multilateral Implementing Entities.



Integrated Climate-Resilient Transboundary Flood Risk Management in the Drin River Basin – Albania.
PHOTO CREDIT: ADAPTATION FUND

While most projects are **regular-sized projects**[1] **(74%)**, the portfolio also includes an important share of innovation, locally-led adaptation, and small grant project types.

Of the **58 water and sanitation projects**, 12 are closed, 31 are under implementation, and 15 didn't start implementation yet.

Figure 2. Geographical distribution of projects by type of implementing entity.
Distribution of Adaptation Fund projects mapped to 'water and sanitation' funding by region, broken down by the type of implementing entity responsible for project delivery.

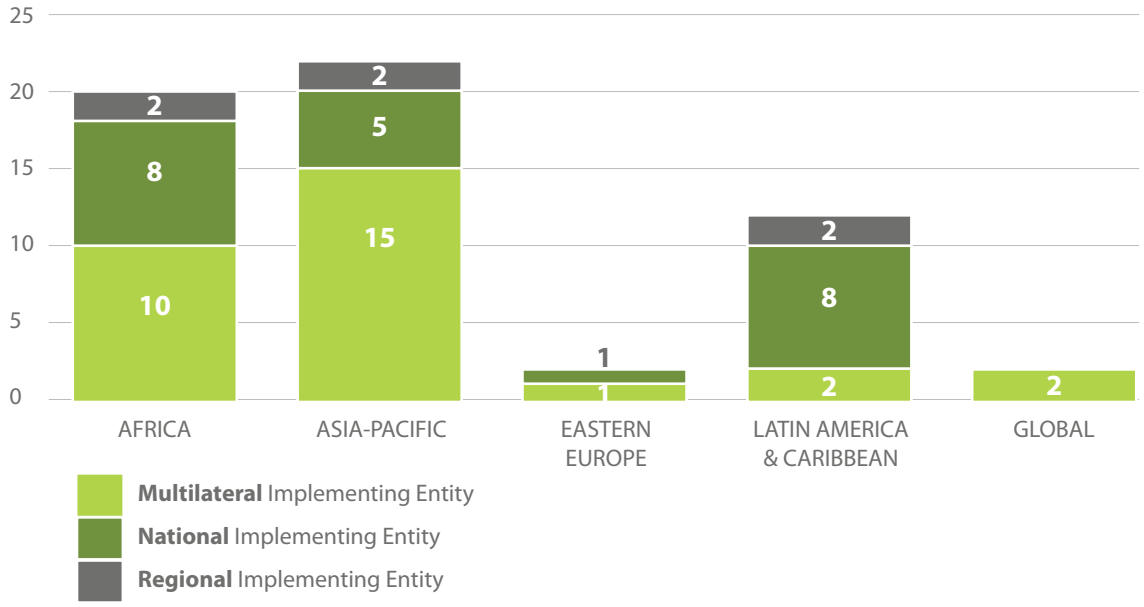


Figure 3.1: Share of Adaptation Fund portfolio mapped to 'water and sanitation', by implementing entity type (**in % of total portfolio & USD million**).

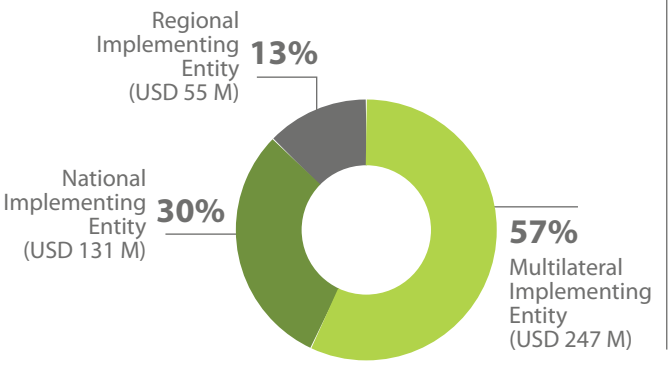
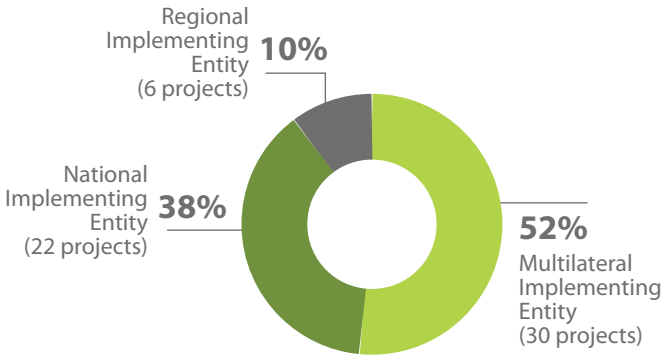


Figure 3.2: Share of Adaptation Fund portfolio mapped to 'water and sanitation', by implementing entity type (**in % & number of projects**).



Note: *Adaptation Fund 'water and sanitation' portfolio: USD 430 M across 58 projects*

1 Based on AF documentation (2017), a regular-sized project refers to a project requesting grants of more than USD 1 million. Link: Instructions-for-Preparing-a-Request-for-ProjectProgramme-Funding_Oct-2017.pdf



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Results, Impacts, and Co-benefits

The Adaptation Fund water and sanitation projects are reducing climate-related water risks, improving access to safe drinking water and sustainable sanitation systems, while strengthening the communities' capacity to anticipate, absorb, and recover from climate-related shocks.

Expected impacts from the 58 projects where water and sanitation are a primary goal include:

35 million
people reached directly and indirectly, including 43% women and 10% youth.

10 million
households with increased or protected incomes, including 2,400 female-led households.

1.5 million
hectares of ecosystems restored.

60
early warning systems strengthened.

1,900 km
of climate-resilient infrastructure improved.

These grants help improve water availability and quality, enhance service reliability, reduce climate risks, and strengthen community resilience.

Beyond projects where water supply and sanitation are primary goals, the Fund's portfolio in other areas such as food and agriculture, infrastructure, ecosystems, and poverty eradication also contribute indirectly to water security. These projects improve irrigation reliability, restore watershed and coastal ecosystem functions, and strengthen climate-resilient water and sanitation systems. Expected additional impacts include:

87 million beneficiaries reached.

Around **4 million hectares** of supporting ecosystems restored.

More than **6,700 km of infrastructure** improved.

Each adaptation investment can deliver multiple, compounding benefits, helping communities reduce climate risks while advancing broader development and environmental objectives. These benefits include ecosystem restoration, gender empowerment, and improved health outcomes, driven by integrated approaches that combine local knowledge, nature-based solutions, and strengthened institutions.

CASE STUDY:

LAO PEOPLE'S DEMOCRATIC REPUBLIC



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Enhancing the Climate and Disaster Resilience of the Most Vulnerable Rural and Emerging Urban Human Settlements in **Lao People's Democratic Republic**

Country:	Lao People's Democratic Republic
Implementing entity:	UN-Habitat (MIE)
Amount:	USD 4,500,000
Project duration:	2021-2024
Status:	Project Implementation Completed

Lao People's Democratic Republic is one of the world's most climate-vulnerable countries due to its dependence on climate-sensitive natural resources and limited adaptive capacity. Increasing floods, droughts, and storms, along with associated hazards such as landslides and disease outbreaks, pose growing risks to livelihoods, infrastructure, and basic services, particularly in poor and underserved rural and emerging urban settlements in the country's southern provinces. These risks are exacerbated by inadequate infrastructure, limited access to services, and the high vulnerability of remote and ethnic minority communities.



Enhancing the Climate and Disaster Resilience of the Most Vulnerable Rural and Emerging Urban Human Settlements – Lao PDR.
PHOTO CREDIT: ADAPTATION FUND

The Adaptation Fund is providing USD 4.5 million to enhance the climate and disaster resilience of vulnerable human settlements in southern Lao PDR. The project combines institutional strengthening, community capacity building, climate vulnerability and disaster risk assessments, and investments in climate-resilient water, sanitation, and related infrastructure systems. Its objective is to increase sustainable access to basic services while improving resilience to floods, droughts, storms, landslides, and disease outbreaks.
The project aims to improve access to essential services and strengthen the resilience of communities and local institutions.

ACHIEVED OUTCOMES

The project successfully strengthened climate and disaster resilience in some of Lao PDR's most vulnerable rural and emerging urban settlements through the construction of climate-resilient water supply infrastructure and complementary capacity-building activities. By completion, 189 communities had gained access to improved water services, benefiting approximately 125,295 people. The project also strengthened institutional and community capacities for climate adaptation through vulnerability assessments, climate action planning, community engagement, and training on the operation and maintenance of resilient water systems. Communities reported improved year-round access to water, reduced time spent collecting water, and enhanced resilience to droughts and other climate-related hazards.



Enhancing the Climate and Disaster Resilience of the Most Vulnerable Rural and Emerging Urban Human Settlements – Lao PDR.
PHOTO CREDIT: ADAPTATION FUND

Category	Achieved outcomes
Beneficiaries	125,295 direct beneficiaries gained access to climate-resilient water supply infrastructure across Attapeu, Salavan and Sekong provinces.
Points of infrastructure	189 water supply infrastructure systems constructed, including gravity-fed systems, solar-powered systems, rainwater harvesting facilities, slow sand filtration tanks, and household water connections.

Source: Terminal Evaluation of "Enhancing the Climate and Disaster Resilience of the Most Vulnerable Rural and Emerging Urban Human Settlements in Lao PDR (2024)



"Enhancing the Climate and Disaster Resilience of the Most Vulnerable Rural and Emerging Urban Human Settlements – Lao PDR.
PHOTO CREDIT: ADAPTATION FUND

CASE STUDY:
UGANDA



PHOTO CREDIT: SAHARA AND SAHEL OBSERVATORY

Enhancing resilience of communities to climate change through catchment-based integrated management of water and related resources in **Uganda**

Country:	Uganda
Implementing entity:	Sahara and Sahel Observatory (OSS) (RIE)
Amount:	USD 7,751,000
Project duration:	2017 - 2022
Status:	Project Implementation Completed

Uganda is highly vulnerable to climate change, with increasing temperatures and changing rainfall patterns contributing to more frequent floods and landslides. These impacts are particularly severe in the Awoja, Aswa, and Maziba catchments, where environmental degradation, unsustainable use of natural resources, and dependence on climate-sensitive livelihoods increase the vulnerability of local communities. The resulting pressures threaten ecosystems, agricultural production, water resources, and rural livelihoods.

Between 2017 and 2021, the Adaptation Fund provided USD 7.75 million to the Sahara and Sahel Observatory (OSS) to strengthen the resilience of communities in the Awoja, Aswa, and Maziba catchments. The project combines catchment-based water resources management, ecosystem restoration, climate-resilient agricultural practices, livelihood diversification, and institutional capacity building. Its objective is to increase resilience to floods and landslides through integrated, equitable, and sustainable management of water and related natural resources.

Through its integrated approach, which links climate adaptation, ecosystem management, community livelihoods, and water governance, the project aims to strengthen adaptive capacity at local, catchment, and national levels while providing a model for climate-resilient catchment management.



Enhancing Resilience of Communities to Climate Change through Catchment-based Integrated Management of Water and Related Resources – Project Completion Report.

PHOTO CREDIT: SAHARA AND SAHEL OBSERVATORY

ACHIEVED OUTCOMES

The project strengthened the resilience of communities to climate change across the Awoja, Aswa, and Maziba catchments through an integrated approach combining ecosystem restoration, sustainable water resource management, climate-resilient livelihoods, and institutional capacity development. The project restored degraded landscapes and wetlands, promoted sustainable land and water management practices, strengthened catchment governance structures, and expanded livelihood opportunities for vulnerable households. These interventions contributed to improved ecosystem health, reduced climate-related risks, and enhanced community resilience to floods, droughts, and other climate hazards.



Enhancing Resilience of Communities to Climate Change through Catchment-based Integrated Management of Water and Related Resources – Project Completion Report.
PHOTO CREDIT: SAHARA AND SAHEL OBSERVATORY

Category	Achieved outcomes
Beneficiaries	More than 100,000 direct and indirect beneficiaries reached through ecosystem restoration, climate adaptation, and livelihood interventions.
Length of infrastructure	422 km of biophysical flood control and water management structures established, including 250.2 km of demarcated riverbanks.
Households	Over 10,000 households benefited from alternative livelihood opportunities, including beekeeping, ecotourism, fish farming, zero-grazing, and other income-generating activities.
Natural assets protected or rehabilitated	2,199 ha of deforested land restored through afforestation, 563 ha of wetlands rehabilitated, and 721 ha of riverbanks restored.

Source: Final Evaluation Report: Enhancing Resilience of Communities to Climate Change through Catchment-Based Integrated Management of Water and Related Resources in Uganda (EURECCCA) (2023)



Enhancing Resilience of Communities to Climate Change through Catchment-based Integrated Management of Water and Related Resources – Project Completion Report.
PHOTO CREDIT: SAHARA AND SAHEL OBSERVATORY

Methods

Data are drawn from the Adaptation Fund's portfolio database (226 projects as of June 2026), which is classified using the GGA thematic area typology based on project documentation. Core indicator values represent expected or achieved results as recorded in approved project documents or evaluation reports respectively, extracted through an AI-assisted protocol.



Multisectoral Adaptation Measures to Climate Change in the South Oropouche River Basin for Flood Relief – Trinidad and Tobago.
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Adaptation Fund:
1818 H Street NW,
Washington DC 20433, USA
Phone: +1.202.473.7402
https://www.adaptation-fund.org/

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Facebook
X
LinkedIn
Flickr
Youtube

@Adaptation-Fund