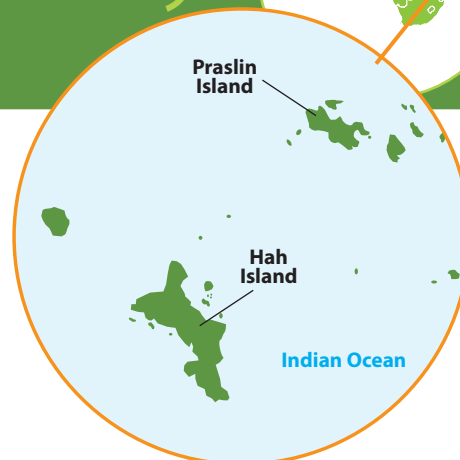




ADAPTATION FUND

Adaptation Story

SEYCHELLES



The Seychelles, a small island developing state (SIDS) in the Indian Ocean, consists of 115 islands, of which some 40 are granitic and the rest are coral formations, and most of the population mostly lives in about eight of these islands. The island faces several impacts of climate change, including sharp bursts of precipitation that creates heavy flooding in the wet season, and at the same time, imposes extended periods of drought during the dry season, leading to long spells of water scarcity.

The climate change projections in the Seychelles show that rainfall, while increasing in overall terms, will become even more irregular.

Communities living along the coasts are also vulnerable to flooding as a consequence of rising sea levels. During cyclone season, this vulnerability is exacerbated by increased storm surges.

However, a project is building resilience to these effects through ecosystem-based approaches that are securing water supplies and providing protections against flooding.

"I have seen a transformation of the wetlands at Anse Royale, from all the years I have worked here. The wetlands had become a dumping site that led to environmental impacts such as floods. The wetlands have now been cleaned, and we can bring students on educational visits by the wetland. The younger generation can now see moorhens — they are observing a livelier wetland with species that were not there before," said

Peggy Agathine, a Mont Plaisir Watershed Committee member and an active volunteer.

This rehabilitation of wetlands is part of the 'Ecosystem Based Adaptation (EbA) to Climate Change' project, funded by the Adaptation Fund, implemented by the United Nations Development Programme and executed by the Seychelles Ministry of Agriculture, Climate Change and Environment. The project is addressing two key issues—water scarcity and flooding that are directly related to the overall health and resiliency of the local ecosystem in both

the watersheds and coastal areas. The Adaptation Fund project applies nature-based solutions for the Seychelles community, ensuring these interventions are effective and sustainable for the community. So far, the watershed rehabilitation activities in the project have been implemented in selected watersheds covering 1,800 hectares on Mahe Island and about 1,200 hectares on Praslin Island, the two largest islands of Seychelles.

One of the main activities is reforestation that helps to enhance upland wetlands in watersheds and strengthen the integrity of the forest landscape. This forest rehabilitation method focuses on removing non-native species, while leaving the protected canopy in place. This activity not only protects vulnerable parts in the catchment, but also provides important products and services including endemic and native plant species.

"I have integrated my work, learning about different plants. Now I know that I have to transplant endemic plants before starting my work and set it aside on the terrain, transplanting it back into the soil. And this has increased my knowledge of plants that I didn't even know existed. Another challenge has been water scarcity that farmers have been facing. The drought would delay their work," said Perry Melanie, a Wetland Enhancement Contractor in Mahe Island.

But the project includes pilot restoration work in a Bougainville wetland that has provided the island its first-ever gabion weir (retaining wall), a natural engineering solution for water storage in the district of Baie Lazare in the south of the main island of Mahe. Similar weirs have been built across Mahe. This ecosystem-based solution to water storage increases resilience to climate change and enhances water supply, food security



The Seychelles is undergoing ecosystem-based adaptation to build climate resilience. (Photos courtesy of Seychelles Programme Coordination Unit)



Perry Melanie

PROJECT details

AF Funding Amount: USD 6,455,750

Objectives:

- Ensure that development in the Seychelles is sustainable, and resilient to anticipated climate change effects.
- Incorporate ecosystem-based adaptation into the country's climate change risk management system to safeguard water supplies, threatened by climate change induced perturbations in rainfall.
- Increase resilience to expected enhanced erosion and coastal flooding risks arising as a result of higher sea levels and increased storm surge.



Climate-smart reforestation to strengthen riverbanks and drainage in Seychelles. (Photos by Seychelles PCU)



ADAPTATION FUND

Adaptation Story

SEYCHELLES

BY THE NUMBERS

REACHED ABOUT
60,000
BENEFICIARIES

APPROXIMATELY **15,000**
BENEFICIARIES TRAINED ON
ADAPTATION MEASURES AND COASTAL
ZONE MANAGEMENT

15
KILOMETERS OF
COASTAL PATHS
AND BEACHES
PROTECTED

OVER
1,000
HECTARES OF
WATERSHEDS
HAVE
IMPROVED
MANAGEMENT
PRACTICES

MORE THAN
100
HECTARES
OF FORESTS
REHABILITATED

22
HECTARES OF
MANGROVES
RESTORED

400
HOUSEHOLDS,
OF WHICH
55%
ARE WOMEN HEADED
HOUSEHOLDS,
SEEN IMPROVEMENTS IN HOUSEHOLDS
AND LIVELIHOODS AS A RESULT OF
ENHANCED ECOSYSTEM SERVICES AND
ADEQUATE WATER STORAGE



Constructed gabion wall and adjacent retaining pond lined with planted trees in project.
(Photos by Dean Rose)

and livelihoods. On-site training is also provided to build local capacity in constructing these gabion rock weirs and retaining walls.

"The pilot restoration work in Bougainville demonstrates that there is more water available than we could ask for," Melanie added. "This promises long-term benefits, especially for farmers. If this could be replicated in all corners of the island, I doubt we'll ever have water scarcity for the coming decade."

Pascal Octave, one of the contractors and instructors who piloted this construction of the gabion weir in Bougainville, remarked, "The pilot gabion retaining wall project is the reason we have learned to build stone walls. From this capacity building, we have now become licensed stonemasons."

"Through this project, I have learned that gabions adapt well to the environment and also create water storage. I would like to encourage everyone to adopt this (retaining wall) solution," said Basil Alcindor, another gabion wall contractor and instructor who helped construct the gabion weir in the Bougainville wetland of the Baie Lazare district.

Other project activities include maintaining and enhancing tidal wetlands, installing bollards to protect beach berms on the coast of North East Point and developing integrated shoreline management plans for the Anse Royale district and North East Point, using EbA measures that include protection to enhance their climate change adaptation role in flood attenuation. It also enhances livelihoods.

"I was born here, and I grew old here. The area was formerly a wasteland, and my area was always subject to coastal flooding. And now I can appreciate the beauty of this wetland. There have been no flooding episodes ever since the wetland restoration work. Additionally, I have benefitted from a contract to trap and manage terrapins (mud turtles) during the restoration work with a monthly enumeration over a period of time. The water is within boundaries and everyone now enjoys this place. This is how it should be," remarked Walter Godley, one of the residents of North East Point.



Walter Godley

The project has also helped to increase awareness and develop skills and responsibilities of a wide range of stakeholders including district authorities and community organizations in ecosystem-based adaptation for watersheds and coastal areas, and building the lasting basis for further education, training and application in watershed and coastal ecosystem rehabilitation. The island now proudly boasts of a climate change guide that introduces active and inquiry-based activities about climate change into different subjects in the school curriculum. Such activities are fostering gender and youth engagement.

"These activities have also helped me as a woman to interact with other women and members of other watershed communities. It has enriched my knowledge, especially of agriculture, and has enabled me to meet people from different sectors. I have also benefitted from training sessions and workshops that have further developed my capacity and increased my knowledge.



Peggy Agathine

Through EbA, we have encouraged young people of Seychelles to engage with different age groups and roles, such as farmers, that has led to inter-generational learning," said Agathine. With a population of only 90,000 the large restored wetland has become a national recreational attraction for the whole island. Further, half of all project beneficiaries trained or engaged in the project have been women.

All of these activities are driven by community engagement which is instrumental for protection of the coastal and wetland ecosystem of this large archipelago.

"Communities are local archives and they have the historical knowledge. They have proven to be an important asset in monitoring and safeguarding natural resources, and ensuring sustainability of the project," said Rajelle Barbe, a Community Engagement Specialist based in Seychelles for the EbA project.

"This project proves that nature provides ecosystem services for communities to better adapt to climate change when nature-based solutions and EbA measures are championed in the watersheds," says Betty Victor, the Project Manager to the project in the Seychelles.