

DJIBOUTI

Ecosystem-based Adaptation

2010-2016



SUSTAINABLE DEVELOPMENT GOALS



60 fishermen benefitted from fishing kits and improved knowledge on sustainable fishing techniques for shrimp, clams and fish. 60 household benefitted from crop gardens and solar water pumps.



The project installed 5 automatic weather stations that supply live data across the country, allowing communities to prepare in advance for extreme weather. 2 district-level adaptation plans were produced, covering over 78,000 people.



The project established 4 tree nurseries, cleaned 50ha of degraded mangrove, and planted over 40,000 mangrove trees. No-take zones were established to protect biodiversity in the mangrove habitat.

PROJECT TITLE:

IMPLEMENTING NAPA PRIORITY INTERVENTIONS TO BUILD RESILIENCE IN THE MOST VULNERABLE COASTAL ZONES IN DJIBOUTI

EXECUTING ENTITY:



GOVERNMENT OF DJIBOUTI
Ministry of Urbanism, Habitat & Environment

KEY FIGURES:

4

Tree nurseries in operation, growing more than 10,000 seedlings.

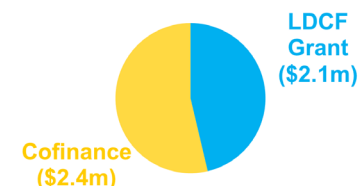
40,000+

Mangrove trees planted to halt erosion.

5

Automatic weather stations established with 30 rain gauges.

FUNDING:



PROJECT PARTNERS:

Secrétariat d'État à la Solidarité Nationale; Ministry of Agriculture, Livestock and Fisheries in charge of hydraulic resources (MAEM-RH); National Water and Sanitation Office of Djibouti (ONEAD); Djibouti National Research Centre (CERD); Djibouti Livestock Export Facility; Agricultural and environmental NGOs.

Supported by the
Least Developed Countries Fund



INTRODUCTION

- Djibouti is a small arid country where the availability of water is a key development constraint that inflicts crops and livestock. 85% of the 890,000 Djiboutians live in urban coastal areas, but these regions are showing severe signs of degradation from climate change.
- The project was located in two sites: Khor Angar in the North (pop. 3,500), where mangroves that once protected villagers from floods are damaged, and Damerjog (pop. 600) in the South, where communities face rising seas and saltwater destroying their crops.
- The project piloted approaches for rehabilitating degraded watersheds and wadi shores to reduce seawater intrusion and floods. Activities were designed to ease pressure on coastal buffer ecosystems like mangroves and increase incentives for ecosystem management (sources of fuelwood, fishing, agriculture, and ecotourism development).

TECHNOLOGIES & METHODS

- **Ecosystem-based adaptation (EbA)** was central to the project's activities. EbA is the tactic of using nature and healthy ecosystems to reduce the impacts of climate change.
- In the two main project areas, **watersheds and mangroves were rehabilitated**, providing a buffer zone to protect farmland and freshwater aquifers from saltwater intrusion and flooding.
- Rising seas carry sand and sedimentation, which suffocates the mangrove forests by blocking the entrances and canals that circulate fresh water. A **dredging and cleaning operation** was carried out, where debris were removed from 50ha of mangroves. With the circulation of water restored, the forest can breathe and grow again.
- To counter the impacts of drought, the project **upgraded wells, boreholes and pumps**. **Micro-dams** were built to control water flow, both halting erosion and strengthening water supplies, allowing communities to grow vegetables for their own-consumption and/or for selling to the market, leading to improvements in living standards.
- **Solar water pumps** were installed to increase

CLIMATE IMPACTS

- Djibouti is highly vulnerable to a variety of natural hazards, including multi-annual droughts, flash floods and cyclones. The country is classified as 'severely water poor'. During 1990-2014, 50% of reported human mortalities were caused by climate extremes.
- More specifically, Djibouti's coasts are in danger. The rising sea-level is leading to saltwater intrusion on people's farms and aquifers, destroying crops and water supplies. The floods damage critical water pumps, leading to further water shortages.
- Djibouti's coasts are vital economic drivers of the country, exemplified by the bustling Port of Djibouti. Coastal ecosystems (reefs, estuaries and mangroves) provide resources to the population and serve as buffers against floods.
- The problems wrought by climate change on the coasts are compounded by steep population growth, which increases unsustainable demands on Djibouti's water resources.

"Khor Angar is the most important mangrove forest in Djibouti. To make sure it didn't disappear, we had to intervene."

- Mohammed Ahmed Djibril, Ministry of Environment, Djibouti

"For the past years, it hasn't rained at all. Without trees, there is no rain and without rain there is nothing."

- Ali Ibrahim Mohammed, 65, local farmer at project site.

PROJECT LOCATION



The project was implemented at two sites: The town of Khor Angar in the Obock Region, and the village of Damerjog in the Arta Region.

STORIES & VIDEOS

Video:
<https://youtu.be/irw4c6YUKJo>

Human interest stories:

English:
<https://www.unenvironment.org/news-and-stories/story/oasis-dreaming-regreening-djiboutian-desert>

French:
<https://www.unenvironment.org/fr/news-and-stories/recit/reve-doasis-reverdir-le-desert-de-djibouti>

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