



Adaptation for  
Smallholder  
Agriculture  
Programme  
**ASAP**



## ASAP Innovations, Policy and Scaling

### DJIBOUTI

- PRAREV helped develop the fishing sector in target areas and contributed to improvements in small-scale fishers' livelihoods. PRAREV beneficiaries fishing revenues were 32% higher than those of non-beneficiaries.
- PRAREV had a positive impact on household food security and female participation in decision-making on fishery activities.
- The programme supported integrating climate change into national policies and strategies. Notably, it contributed to revising the Fisheries Code.

#### The challenge:

#### Coastal and inland climate impacts in Djibouti

A vulnerability assessment supported by ASAP unveiled that extensive portions of Djibouti's coastline are on the brink of significant ecosystem disruption. The primary threats stem from the deterioration of coral reefs and mangroves, alongside the persistent risk of gradual inundation and saltwater intrusion.

Climate change is affecting water temperature and ocean currents, which adversely impact fishery resources. The rise in sea temperature is causing fish migration further from the coast and hardships for local fishers ill-equipped to adapt. Furthermore, the rise in sea levels and the increasing frequency of extreme weather events, like storms and floods, are impacting coastal infrastructure, including production and post-production equipment.

The climate impacts go beyond the coast of Djibouti. Inland, the impacts persist as climate change brings prolonged droughts, reduced rainfall, and escalating temperatures. These adverse conditions negatively affect groundwater recharge, which serves as the primary source of freshwater in the country. The confluence of rising sea levels and reduced groundwater recharge is leading to an increase in the intrusion of seawater, which in turn affects the quality of water resources.



#### Programme to Reduce Vulnerability in Coastal Fishing Areas (PRAREV)

2013-2021

#### Project Financing

Total project cost: US\$ 13.34 million  
IFAD financing: US\$ 10.11 million  
ASAP grant: US\$ 5.9 million

#### Outreach

- The regions of Tadjourah, Obock, and the localities of Arta, Loyada and Damerjog.
- 27 617 household members and 5 021 households against a target of 29,810 and 5,420, respectively

#### Target group

Smallholder farmers with a special emphasis Households among the poorest and most disadvantaged social groups that suffered the effects of climate change; small-scale fishermen who have not been able to adapt their equipment to climate change; unemployed youth; fishermen and women fish sellers whose means are insufficient to develop their activities.

#### Programme Objective

Support people living in rural coastal areas affected by climate change to improve their resilience and reduce their vulnerability to such change and promote co-management of marine resources.

## The innovation: Pioneering a comprehensive approach of climate resilience and ecosystem regeneration in the fishery sector

PRAREV stands as an innovative programme in Djibouti's battle against the impacts of climate change. Conceived to bolster adaptation and resilience, what makes PRAREV an added value is its comprehensive approach, bridging multiple sectors, including fisheries, rural development, gender, environment, and climate change. The complexity of this endeavor demanded pioneering strategies in coordination, communication, and synergy among a diverse array of partners and stakeholders. In essence, PRAREV has become a blueprint, akin to a "school programme," charting a course for future projects to follow.

One of PRAREV's standout achievements is the rehabilitation of the **Godorya mangroves**. Beyond its ecological impact, this endeavor has unleashed new horizons for scientific exploration with the Center for Studies and Research of Djibouti (CERD). Culturing adapted plant species through in vitro and in vivo methods has opened doors to innovative scientific research. Moreover, it has paved the way for sustainable, collaborative actions to tap into the mangrove's fishing potential, presenting a promising avenue for **payment for environmental services**.

PRAREV has brought about transformative changes on various fronts. The installation of solar-powered cold rooms and the establishment of a marine biology laboratory staffed by a qualified team signify ground-breaking developments for the nation. Equally, introducing the long-awaited fishing fleet census and catch tracking system constitutes a significant leap forward. In addition, PRAREV has empowered fishermen with tailored microcredits, a lifeline aligned with their unique needs and realities, marking a first-time achievement with far-reaching implications for local communities.

### Lessons Learned:

- The economic and financial analysis shows that the revenues generated from tourism activities - particularly around the Godorya mangrove - strengthen the viability of the PRAREV. This suggests that the program could have invested more in the tourism/eco-tourism sector as a complementary activity to fishing. This diversification of income sources could have also contributed to improving the resilience of beneficiary households to shocks.
- The PRAREV has had a differentiated impact along the value chain. Program managers must take this into account to improve performance regarding fish capture and the profitability of fishing activities. Indeed, a more detailed analysis of the needs of the value chain segments involved in capture and post-capture could have allowed for more tailored interventions with value chain actors.

“

*Thanks to PRAREV, we [the fishers] have now been able to restore part of the mangrove. We have been trained and prepared to independently continue activities in the field with a monitoring system that we master.*

”

- Mohamed Ibrahim Mohamed, PRAREV's project participant



## Results and impacts

PRAREV helped develop the fishing sector in target areas and contributed to improvements in small-scale fishers' livelihoods. Project participants, more likely to own fishing equipment, experienced increased fishing revenues and market access, mostly derived from enhancing fish trading activities. PRAREV also had a positive impact on household food security and female participation in decision-making on fishery activities. Additionally, PRAREV's evaluation report reveals an improved understanding of climate change challenges and climate adaptation solutions among households attended by the project.

The programme has contributed to adaptation to climate change through its support for actions to preserve the Godorya mangroves and support for the creation of income-generating activities for the benefit of communities maintaining the mangrove. The project also focused on protecting coral reefs with the relevant national ministries. This joint action has enabled the delimitation of **marine protected areas (MPAs)** and the delimitation of coral areas subject to specific protection measures, such as the prohibition of fishing in these vulnerable ecosystems.

At the institutional level, cooperation with FAO has made it possible to strengthen the scientific and technical capacities of Djibouti's Department of Fisheries in the collection and processing of data on fishing efforts, laying the foundations for a **policy of sustainable management of fishery resources** based on an assessment of these resources and regular monitoring of its development.

The creation of the Marine Biology Laboratory within the Center for Studies and Research of Djibouti (CERD), thanks to PRAREV funding, will contribute significantly to a better understanding of the environmental conditions of the waters of the Gulf of Tadjoura through the measuring and monitoring of protected areas.

The programme has also supported integrating climate change into national policies and strategies. Notably, it contributed to revising the **Fisheries Code** and organized awareness-raising workshops on responsible fishing for coastal communities. These efforts led to the inclusion of principles such as responsible fishing, conservation of aquatic resources for food security and sustainable development, environmentally friendly fishing practices, and the preservation of critical habitats like mangroves into national legislation. Additionally, the program partnered with the Department of Environment and Sustainable Development to produce a report promoting the **sustainable blue economy**.



## PRAREV Footprint



**2,818 households** reported adoption of sustainable and climate-resilient practices and technologies



**9 ha of mangroves** were treated which should have a **positive impact on 100 ha of mangroves** (100% of the revised mid-term target)

## Impact assessment



PRAREV beneficiaries **fishing revenues were 32% higher** than those among non-beneficiaries



PRAREV beneficiaries are **21 percentage points more likely to own a boat** and, among boat owners, **beneficiaries' boats are 14% bigger than those of non-beneficiaries**



As for ownership production factors, the results did not show a statistically significant impact of the programme on the quantity of fish caught, with the exception of tuna which **increased by 7%**



Food insecurity **decreased by 35%**

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Investing in rural people

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