



GRANTEE

Shoals Rodrigues Association, Ocean Tribe, Association des Pecheurs du Parc Marin du Sud, Association des Pecheurs de Riviere Banane, Ter-Mer Rodriguez



WATERBODY

Aghulas Current Large Marine Ecosystem



PROJECT DURATION

2001-Present



AMOUNT

US\$475,468

COFINANCING

US\$404,699

CASE 8

Integrated Fisheries and Marine Reserve Management, Mauritius

PROJECT CONTEXT

Rodrigues is a semi-autonomous dependency of the Republic of Mauritius, situated within the Mascarene Archipelago, a recognized global biodiversity hotspot. The island is of volcanic origin and is encompassed by an extensive fringing reef, with a wide shallow lagoon that covers an area of 240 km². Fisheries are a vital source of employment, income and subsistence livelihoods in Rodrigues and play an important role in the local culture and traditions, and therefore their sustainable management is a priority. The fisheries of Rodrigues are highly diverse with over 100 fish species from a range of families recorded in fisheries sampling so far. In addition a variety of invertebrate species are also exploited. However, through the years, intensive fishing pressure in the lagoon has resulted in drastic declines of both finfish and invertebrate landings and degradation of lagoon habitats. Some important commercial species could become rare or even locally extinct if they are not protected. The isolation of Rodrigues also contributes to unusual and perhaps unique marine assemblages, and supports some endemic fish species.

PROJECT IMPLEMENTATION

Since 2001, the GEF Small Grants Programme (SGP) implemented by UNDP has undertaken a programmatic approach to promote integrated coastal and ocean governance in the area. Initially, during the period from 2001 till 2004 SGP supported the project “Sustainable Reef Fisheries Development in the Rodrigues Lagoon”, which became the catalyst for current marine conservation efforts in Rodrigues and resulted in the identification of 4 Marine Reserves in the northern lagoon by the fisher community. During implementation of this



project, an inventory of local fish species was carried out by a team of local and international marine scientists to determine their populations. Several new endemic species of fish and corals were discovered during these surveys, namely “the Rodrigues Damsel” and the “Rodrigues Acropora”, named after the island. These studies and discoveries have been acknowledged in leading scientific journals namely in the UK (Allen & Wright, 2003; Heemstra et al., 2004).

During 2004 till 2006 SGP supported another project “Marine Environmental Education in the Local Community”, which led to the development of the Marine Reserves by raising awareness amongst the local population about the need for protection and sustainable use of the marine environment. Some components in this project have been replicated in Mauritius several times by other NGOs and the Government, for example, the setting up of environmental corners in primary schools.

Two other SGP projects “The development of ecotourism in Rivière Banane as an alternative to fishing” and “Small-scale animal husbandry as a sustainable alternative to fishing” were funded in 2008. These projects supported the development of the Rivière Banane Marine Reserve, reducing the reliance of the local community on fishing and thus reducing illegal fishing within the reserve. The big challenge in these 2 projects has been to encourage fishers to change from a practice of day-to-day earnings towards the management of small community businesses where they have to share monthly incomes and re-invest part of it in running cost. This is still a challenge.

In 2009-2010 the SGP supported grant “Empowering the Southeast Marine Park Association Fisher Community through Ecotourism Development” supported the fisher community of the southern region through the creation of alternative livelihoods and thus limiting the exploitation of the lagoon. This project provided assistance to the fisher communities affected by the establishment of the marine protected area under a UNDP/GEF project.



In 2010-2012 the SGP grant “Improving Management Effectiveness for the Marine Protected Areas of Rodrigues” revitalized support for the Marine Reserves amongst both the local fisher community and the Rodrigues Regional Assembly (RRA). It provided training and support enabling local marine resource users to prepare a joint management plan for the four Marine Reserves.

SGP provided support in 2013 to the project “Alternative livelihoods and support for sustainable marine resource management in Rodrigues”. While previous projects built the momentum for sustainable management of marine resources in Rodrigues, this project is supporting the effective implementation of the Marine Reserves management plan as well as an island-wide octopus fishery closure.



Since 2015 to the present, the SGP grant “Empowerment of Off-Lagoon Fishers of Rodrigues” by Ter-Mer Rodrigues is working to empower fishers and local people for patrolling of illegal fishing and improving surveillance during closure season. The project supports the restoration of beacon lights, training on safety at sea, and distribution of fishing kits, first aids kits, and creation of five off-lagoon fishing co-operatives. It provides training on off-lagoon fishing

techniques and is introducing new and more efficient fishing gear to promote sustainable and economically viable off-lagoon fisheries. The project is implementing a policy initiative for removing tax on fuel for registered off-lagoon fishers. The project is expected to contribute in the development of sustainable off-lagoon fisheries in Rodrigues through empowerment and continuous training of off-lagoon fishers.

RESULTS AND UPSCALING

In the course of over a decade of sustained involvement of SGP, working closely with civil society, communities and local government and other stakeholders, several significant results have been achieved as described below:

Four marine reserves were developed. A final joint marine reserve management plan was developed and adopted for the four new marine reserves in the northern Rodrigues lagoon. This is one of the first management plans in the region that has been written by local marine resource users. The marine protected area network in Rodrigues now covers close to 80 km² of the reef and lagoon and will (once fully implemented) provide a refuge for marine biodiversity and help to restore fish and invertebrate stocks.

Capacity development. A series of training workshops and consultation meetings were also conducted with fishers, fisheries officers and tour operators to ensure that their interests were taken into consideration and addressed in the management actions.

Introduction of annual octopus fishing closure. As a result of the SGP projects, the Rodrigues Regional Assembly (RRA) took a policy decision to ban octopus fishing each year for two months from August to October to allow for their replenishment in the lagoon. In this context, the RRA’s policy is to provide alternative activities to redundant fishers during the octopus fishery closure. SGP supported the initiation and first 2 years of alternative livelihood opportunities to the fishers.

Policy Change. Another policy decision of the RRA was to move from traditional systems of “financial compensation to fishers” to a system of remuneration for carrying out ecosystem services such as forestry works (weeding and removal of exotic and invasive species); rivers and reservoirs cleaning and rehabilitation; pasture and land preparation, drain maintenance; clean-up of paths and trails; clean-up of islets, dredging and deepening of natural lagoon channels, and cleaning and embellishment of public building and space. Following the re-opening of the first octopus fishery closure initiative of 2012, an octopus catch of 294 Tons of octopus was landed during the first 48 days of fishing activities. That was equivalent to the mean annual production of the last six years (288 ton/year). This strongly suggests that the octopus closure is a crucial octopus fishery management measure. An octopus catch of 570.66 Tons was consequently recorded for the year. Four consecutive closures have seen the same trend. Based on these positive impacts, the RRA is now seriously thinking of having a second annual closure, most probably during the months of January and February as these are reportedly the months when the young octopuses which have been hatched during the first closure will grow bigger.

Mainland Mauritius Policy Change. Based on the successful octopus fishery closure in Rodrigues, a small-scale similar voluntary trial closure was carried out in the south-east region of mainland Mauritius in 2015. In 2016, the Ministry of Ocean Economy, Marine Resources, Fisheries, Shipping and Outer Islands has now embarked on a national closure from 15 August to 15 October given the steep decline of octopus fisheries to only 30 tons of octopus catch annually. They are partnering with the SGP and the FAO Smartfish Programme implemented through the Indian Ocean Commission (IOC) to support this closure. A regulation is under preparation and is expected to be passed in Parliament shortly. This initiative shows the transfer of lessons, replication of experience, and upscaling to national level.

EXPERIENCE AND LESSONS LEARNT

During the last 15 years (2001 -2016), in the course of the implementation of the different GEF SGP projects, it became clear that only the combined efforts of the Rodrigues Regional Assembly, conservation NGOs and stakeholder groups could lead to an effective marine resource management in Rodrigues. The scaling up, though not intended, became an evident answer to support the national and local Government objectives of strengthening management of protected areas and reducing fishing pressure in the lagoon. A strategic project was the answer to the challenges raised by the outcomes (policy decisions) of the different projects. It not only sustains a second year of octopus fishery closure but also supports the implementation of the Marine Reserves Management Plan.

Since 2012, the RRA has set up a new collaborative mechanism between the local government and SGP. All projects pertaining to Rodrigues are discussed with the EPMU in order to coordinate and mainstream them into the strategic priorities of the RRA through support to the communities. In turn the EPMU provides support by facilitating administrative procedures and decisions. This gateway to the highest decision making level in Rodrigues has strengthened the partnerships and led to direct support for strategic projects as well as regular SGP grants.

Government support has been key to this upscaling and this was readily obtained from the Rodrigues Regional Assembly. The first closure of the octopus fishery resulted in an increase in catches when fishing could resume, both in size and in quantity. The island was not prepared for this huge increase in terms of storage facilities and price control. These challenges have been tackled since then with several policy measures implemented to support fishers.

TABLE 3

List of SGP funded projects in Rodrigues Island that contributed to the improvement in the management and governance of its coastal and marine ecosystems

PROJECTS	GRANTEE	START AND END DATE	AMOUNT (US\$)	COFINANCING (US\$)	PARTNERS
MAR/01/02 "Sustainable Reef Fisheries Development in the Rodrigues Lagoon"	The Shoals Rodrigues Association (Shoals)	May 2001 – May 2004	42,254	37,490	National Environment Fund National Government, UK Foreign and Commonwealth Office Bilateral, Christensen Fund Foundation, Shoals Rodrigues Association, Rodrigues Underwater Group National NGO
MAR/04/01 "Marine Environmental Education in the Community"	The Shoals Rodrigues Association	Jan. 2005 – Dec. 2006	37,019	47,862	Barclays Bank, New England Biolabs Foundation, North of England Zoological Society, Rufford Award
MAR/SGP/OP4/RAF/07/02 "The Development of Ecotourism in Rivière Banane as an Alternative to Fishing"	Ocean Tribe	Dec. 2007 – Apr. 2009	49,226	23,566	Indian Ocean Commission, Shoals Rodrigues
MAR/SGP/OP4/CORE/07/03 "Small-scale Animal Husbandry as a Sustainable Alternative to Fishing"	Association des Pecheurs de Riviere Banane	Dec. 2007 – Apr. 2009	50,000	40,991	Indian Ocean Commission, Shoals Rodrigues
MAR/SGP/OP4/YR2/RAF/08/03 "Empowering the SEMPA Fisher Community through Ecotourism Development"	Association des Pecheurs du Parc Marin du Sud	Jun. 2009 – Jun. 2010	49,959	17,825	SEMPA
MAR/SGP/OP4/YR3/CORE/09/04 "Improving Management Effectiveness for the Marine Protected Areas of Rodrigues"	The Shoals Rodrigues Association (Shoals)	Jul. 2010 – May 2012	47,010	92,759	British High Commission in Mauritius, RECOMAP, Rodrigues Regional Assembly
MAR/SGP/OP5/Yr2/CORE/BD/13/07 "Alternative livelihoods and support for	The Shoals Rodrigues Association (Shoals)	Jun. 2013 – Oct. 2014	150,000	209,082	British High Commission in Mauritius, Chester Zoo, Decentralised Cooperation Programme Mauritius, ISLANDS - COI in Mauritius, Mauritius Research Council (MRC), Rodrigues Regional Assembly, Smartfish, The Deep Aquarium

