

**END OF PROJECT REPORT**

**Support to the Government of Seychelles Rapid Assessment to Farquhar Atoll and Development of an Early Recovery Framework**

**Aftermath of Very Intense Tropical Cyclone Fantala**

**Country:** Seychelles

**Implementing Partner:** Ministry of Environment, Energy, and Climate Change

**Responsible Partners** Ministry of Environment, Energy, and Climate Change

**Other partners** Island Development Company Ltd

Total Allocated resources UNDP managed funds): \_USD 50,000

* Government \_\_\_\_\_\_\_\_\_\_\_\_
* Other (partner managed resources):
* IDC USD 30,565
* Donor \_\_\_\_\_\_\_\_\_\_
* In kind contributions \_\_\_\_\_\_\_\_\_

Unfunded budget: US$ 50,000 requested from OCHA

Co- Financing – USD$ 40,000

Programme Period: April 2016 – July 2016

Programme Components:

Award ID: 00096568

Project ID: 00100479

Project Duration: 3 months

Total Budget US $50,000

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# EXECUTIVE SUMMARY

The GOS-UNDP project *Support to the Government of Seychelles Rapid Assessment to Farquhar Atoll and Development of an Early Recovery Framework* was a three months’ project with an estimated total budget of US$50,000 was earmarked. The project responded to GOS request for assistance to the UNDP in the light of severe damage caused by the tropical cyclone Fantala to infrastructure and the environment on Farquhar on the 17th April 2016.

The project was executed by the Department of Risk and Disaster Management of the Ministry of Environment, Energy and Climate Change (MEECC).

The Department of Risk and Disater Management partnered with the Islands Development Company (IDC) in the implementation of the project. The IDC is the owner and management company of Farquhar islands.

The project objective was:

*The project was to provide support to the government of Seychelles to immediate needs assessments of the affected of Farquhar and to support response to early recovery planning processes and the development of multi-sectorial early recovery plan for the island which was affected by the cyclone Fantala in April 2016.*

In order to achieve the project objective (as stated above) the project had three expected outputs:

1. **Support to immediate needs assessments in the affected islands**
2. Immediate support to assessment missions to the islands to survey damage and provide recovery estimates (including immediate recovery needs) to allow for the return of the workers as well as the environmental NGO back to the island
3. Catering to immediate needs (diesel fuel, repair to desalination plants, etc..)
4. **Support response to early recovery planning processes and the development of multi-sectorial early recovery plan**
5. Support for developing analytical reports to design recovery plan
6. Sharing of assessment information to support grant based fund raising efforts (coordination)

# I. Context of the Project

The Republic of Seychelles lies in the western Indian Ocean, east of mainland Africa and north to north-west of Madagascar. It has a total landmass of 455 km spread across an Exclusive Economic Zone (EEZ) of around 1,374,000 km. There are 115 islands listed in the Constitution of Seychelles which divide into two groups, the mostly granitic islands (the inner islands), centred around Mahe and Praslin, and the outer coralline islands (the outer islands), lying west and south-west of the granitic group. The inner islands comprise a slightly larger landmass than the outer islands, but occupy a much smaller area of ocean.

Farquhar is the most southerly of the outer islands (10’10‟S; 51’08‟E), situated 770 km SSW of Mahe. The atoll covers 17,800 ha (land and sea) and contains ten islands: the two main islands North and South Island cover 799 ha (97% of the landmass), between which are three small islands known as the Manahas, on the northern rim of the atoll there are four islands, Trois Iles (Despose, Ile du Milieu and Lapin), and then Banc du Sable which is the most western island. Ile Goëlettes is situated on the south. The lagoon has a maximum depth of 14.6 m. There is an airstrip on North Island and boat access into the lagoon is possible through the reef passes.

A total of 34 people were living and working on the small island, but most of these were evacuated in the days before Cyclone Fantala arrived as a precaution. Those who remained on the island are confirmed to be unharmed as they were able to shelter in a number of buildings which had been designed with cyclones in mind. The remaining staff on the island have cleared the runway of debris and it is now operational, but weather conditions still do not yet allow access.

Farquhar is noted for exceptional biodiversity being important aggregating areas for certain sea birds and homes to species such as red-footed booby and frigate birds. The islands also support certain economic activities for the island Development Corporation. It has a well-established salted fish industry and also coconut oil production, which are exported to and sell to the population on Mahe. It is also one of the major fly fishing spot in the world, an activity that contribute financially to the management of the outer islands. These activities help to sustain the livelihood of many local people that contribute to the socioeconomic aspects of the islands.

Presently the UNDP has a GEF funded project entitled “Expansion and Strengthening of the Protected Area Subsystem of the Outer Islands of Seychelles and its Integration into the broader land and seascape” currently active on the island. Farquhar was an integral part of the project where two Conservation Officer were based on the island to cover the environmental monitoring programme there.

Tropical Cyclone Fantala (19S) formed over the southwest Indian Ocean on April 11th. It then moved westward, further intensifying. On April 17th Very Intense Tropical Cyclone Fantala (Category 5), the strongest cyclone ever recorded in the Indian Ocean basin, passed directly over Farquhar at 0600 UTC, with maximum sustained wind speeds of 241 km/h and with gusts of up to 350km/h, causing severe damage to Farquhar Island. The cyclone then changed course and on April 19th at 1800 UTC passed over Farquhar again with maximum sustained winds speeds of 157 km/h.

On 19 April 2016, UNITAR/UNOSAT triggered the International Charter on Space and Major Disasters on behalf of the United Nations Resident Coordinator Office (UN RCO) for Seychelles and& Mauritius to support, with satellite imagery analysis, emergency response operations within the affected areas in the Farquhar Atoll.

While there was no requirement for a lifesaving humanitarian response, significant reconstruction work needed to be assessed and undertaken to protect these valuable islands. The small community that inhabited those islands needed to have their facilities restored as well as the essential services. The livelihood of the people who resided on the island were affected as a result in addition to those who participated in the ecotourism activities of the islands.

Farquhar also provided support and assistance to many of our local fisherman when in distress given that these areas are well known to be very good fishing grounds. In addition, the NGO Island Conservation Society that was undertaking environmental management as part of a GEF funded project on the island and have also suffered considerable damage to equipment and facilities.

On 20 April 2016, the Government of Seychelles, based on initial findings and upon recommendation of the DRDM and in accordance with the Disaster Risk Management Act of 2014, Section 39(3), declared the Farquhar Atoll, a disaster zone and on April 21st requested the United Nations for international assistance.

Initial assessment from the 14 IDC staff that remained on the island indicated that there were no fatalities, but much of the infrastructure and buildings on the island had been damaged or flattened by the storm's powerful winds, except for two buildings that were designed with cyclones in mind. These building include a store and a warehouse for sheltering the staff remaining on the island.

The 14 people who remained on the island were unharmed and they immediately started clearing the runway of debris to ensure its serviceability for the arrival of relief and recovery flights.

In coordination with the Department of Risk and Disaster Management, the IDC sent two recovery flights to the island on the 22nd April 2016 and a supply ship on the 3rd May 2016 with provisions for staff residing on the island as well as equipment required to repair and restore essential services such as electricity and also water (through desalination).

**II. Recovery Strategy and Needs**

The passing of Tropical Cyclone Fantala over the Farquhar Atoll, which devastated highly-modified environments, i.e. coconut palm tree groves and mixed forests, offers a window of opportunity to promote the restoration of degraded natural ecosystems and thereby accelerate the achievement of the Government's biodiversity conservation goals for the atoll. Accordingly, the Government of the Seychelles and the IDC5, with the technical support from ICS, are committed to phasing out unsustainable practices while promoting environmentally-friendly economic activities, such as high-end nature-oriented tourism (e.g. fly-fishing, and bird watching), ensuring that any increase in the number of tourists will solely be allowed with strict adherence to technical recommendations on the maximum number of people that may visit the atoll without causing damage to its unique environment. In addition, the recovery strategy will promote sustainable livelihoods that are compatible with, and contribute to, the long-term protection of Farquhar’s natural ecosystems and the services they provide. Therefore, the resilient recovery approach is based upon the following three pillars: (1) biodiversity and environmental protection; (2) blue and eco-sensitive economic development; and (3) security and disaster risk management.

It is also recommended to adopt a build back better approach, which would be the guiding principle of the recovery and reconstruction strategy. This approach will help increase the overall resilience of the affected population and assets and promote sustainable development. The recovery strategy should address emerging needs related to the reconstruction of damaged assets and the reactivation of productive activities. This strategy is expected to promote the rehabilitation of, offer sustainable alternatives to, and promote the expansion of tourism-related options, based on three guiding principles: (i) the protection of the Atoll’s natural environment and its unique biodiversity; (ii) promoting sustainable, environmentally-friendly economic activities; and (iii) mainstreaming disaster risk management and climate change adaptation as the overarching themes for the selection of interventions leading to build resilience to adverse natural events.

K**ey Recommendations**

* Prioritize the recovery of the SCG’s capacity to monitor from the Farquhar Atoll its territorial and Exclusive Economic Zone (EEZ) waters, strengthening disaster preparedness and response capacities, including Search & Rescue;
* Recover economic activities based on the overall goal of maintaining the atoll’s extraordinary biodiversity by promoting eco-sensitive and marine oriented activities that support the sustainability of the atoll’s contribution to the country’s sustainable social and economic development;
* Rebuild infrastructure to cyclone proof standards, and replicate this approach on the other Outer Islands.

**General Recommendations**

* Prioritize the re-establishment of the Seychelles Coast Guard’s capacity to monitor from the Farquhar Atoll the country’s territorial and Exclusive Economic Zone waters, strengthening disaster preparedness and emergency response capacities. Given the strategic importance of the SCG post at Farquhar Atoll for the performing of national security operations along the Seychelles’ territorial waters and EEZ; and maritime Search & Rescue operations, as well as safety and security support to activities within the Farquhar Atoll; it is of utmost importance to prioritize the reconstruction of the SCG facilities at Farquhar, including the installation of a new communications tower and related communications equipment.
* Reactivate economic activities, incorporating the technical recommendations of relevant experts on the types and scale of acceptable productive activities that are sustainable and compatible with the long-term development and conservation goals for the Farquhar Atoll. Bring tourist oriented visitation to pre-cyclone levels, exploring the feasibility of increasing tourism absorption capacity. Any increase on the number of visitors shall seriously consider experts' recommendations on the maximum number of people that may visit Farquhar at the same time without causing deterioration of the physical, socio-cultural or environmental characteristics of the atoll. Similarly, production of coconutderived products (e.g. coconut oil and copra) as well as salted fish shall be brought back to pre-cyclone levels.
* Install new Automatic Weather Stations (AWS) at Farquhar. Consider the need to increase the density and coverage of the country’s meteorological network. As demonstrated by the passing of Tropical Cyclone Fantala, timely access to reliable meteorological data is critical for informing emergency operations related to rapid-onset extreme meteorological events. The installation of a new AWS is urgently needed in Farquhar. Expanding the coverage and density of the country’s meteorological network to other Outer Islands is an urgent need for strengthening and improving weather monitoring and forecasting capabilities, as well as to improve the effectiveness of the country’s meteorological Early Warning System. Hence, the sustainability of the operation of the AWS at Farquhar, as well as other nodes of the weather-monitoring network across the whole country, should not be an afterthought, and adequate and predictable funding options should be budgeted and provided for operations & maintenance. Along with proper equipment, there is a need to update and harmonize the country’s Standard Operating Procedures for disaster preparedness and emergency response. This need is particularly urgent for the Farquhar Atoll and Outer Islands located along the path of tropical cyclones.
* Build storm shelters capable of withstanding category 5 cyclones, and keep them properly equipped with portable radios and survival kits, on all Outer Islands located along the path of cyclones. Cyclone shelters save lives. The remoteness of the Outer Islands poses a serious challenge to residents and tourists. Therefore, it makes sense to build additional cyclone shelters on other islands. These shelters shall be built to comply with technical specifications to withstand category 5 cyclones and shall be kept properly equipped with battery-powered radio-communication devices as well as emergency survival kits. Cyclone shelters should be used as the refuge of last resort as it would be expected that people at-risk are informed of any evolving emergency situation in a timely manner, as well as SOP for emergency evacuation would be in place and known by all concerned stakeholders.



# II. PROJECT RESULTS SUMMARY

|  |  |  |  |
| --- | --- | --- | --- |
| **Description/objective** | **Description of Indicator** | **Target level at end of project** | **Achievement at end of project** |
| **Output 1**: Support to immediate needs assessments in the affected outer islands***Baseline****: 0***Target: 1*** 1. Immediate support to assessment missions to island to survey damage and provide recovery estimates

 * 1. Catering to immediate needs (diesel fuel, salt water desalination plant, etc)
 | Needs assessment produced | * 1. USD50,000 received by IDC on 15.09.2017 to cover flight costs.

 1.2 First boat trip with recovery supplies, machinery for infrastructure repairs and site clearing and some construction materials was dispatched on 3rd may 2016. Two additional boat trips with constructions materials and additional supplies were sent to Farquhar on the 1st September and 2nd October 2016.  | Two flights done on 22.04.16 and 22.04.16 for recovery team and representatives of the Department of Risk and Disaster management. Two flights done on the 12.05.16 and 13.05.16 for World bank representatives and assessorsReconstruction of electricity generation house, water desalination plant house and new water storage tank have been completed to date. Reconstruction of the IDC guest house and staff accommodation house is still on-going.Clean up has been completed on North island and the debris have been sorted out and stacked away. |
| **Output 2**: Support response to early recovery planning processes and the development of multi-sectorial early recovery plan2.1 Support for developing analytical reports to design recovery planning. 2.2 Sharing of assessment information to support grant based fund raising efforts (coordination).  | Report: Cost recovery options | 2.1 World Bank and UNDP rapid assessment experts visited Farquhar on the 12th and 13th May to assess the damage caused by the cyclone and to conduct a PDNA. | The rapid assessment the project team presented their findings to the Finance Minister of the Seychelles on May 16, 2016, highlighting the estimated damage and loss at US$10 million and needs at US$8.5 million, as well as going through options for possible World Bank financial assistance.Ecological assessment information for the island vegetation will be used in developing the vegetation management plan for Farquhar. PDNA was written and shared broadly with the UN, and EU, and WB departments |
| **Total**  |  |  |  |

# III. PERFORMANCE REVIEW

## **III.1 Performance against indicators**

The performance of the project against its two (2) indicators was considered to be satisfactory with the target for Output 1 fully achieved. For the target of Output 2 there has been fully achieved. The rapid assessment group presented their initial findings to various government representatives including the CEO of IDC and the media on the 16th May 2016. The final has been provided to the Government and DRDM.

# IV. IMPLEMENTATION STRATEGY REVIEW

## **IV.1 Implementation arrangements**

The project was implemented on behalf of MEECC by the Department of risk and Disaster Management with the collaboration of the Islands Development Company Ltd. The RC Office and UNDP Resident Representative ordered an [International Space Charter](https://www.disasterscharter.org/web/guest/activations/-/article/cyclone-in-seychelles) through UNOSAT / UNITAR (Glide Number **TC20160418SYC)** to undertake detailed satellite mapping of the impact of the cyclone on Farquhar. The RC was also in contact with OCHA concerning accessing their emergency response funds.

**V.** **IMPLEMENTATION ISSUES**

The below is a list of implementation issues identified in 2016.

| **Type** | **Description** | **Comment**  |
| --- | --- | --- |
| ORGANIZATIONAL | Limited time to properly cover all areas of the assessment program cyclone.   | The devastation to buildings (staff accommodation and guest house) provided some challenges in getting the rapid assessment team to Farquhar. Housing of the IDC field support team proved a challenge.The assessment was done over two days with the assessment team having to return back to Mahe by 17:30 hours on the first day instead of remaining on the island for an early start in the ground survey work. Less time was available for field work.Access from the North island to South Island and other islets was constrained by the tide movement around the atoll and inside the lagoon. |
|  ENVIRONMENTAL   | Marine ecological assessment could not be done.   | Planned underwater assessment of the impact of the cyclone on the island reef and lagoon could not be undertaken in view of poor visibility caused by occasional cloud overcast and underwater disturbances (silts, etc..) |
|  |  |  |

# VII. FINANCIAL STATUS AND UTILIZATION

## **VII.1 Financial summary**

The project had a total UNDP grant of $50,000, which was expected to be supported by some co-financing from the IDC. The co-financing was unspecified in view of the urgency of the situation and the fact that the island was owned by IDC. The funds has been used to pay for flights to Farquhar as indicated at II.

## **VII.2 Financial overview**

*Financial overview for the whole duration of the project (Use of TRAC 3)*

**WORK PLAN BUDGET SHEET: RESULTS AND RESOURCES FRAMEWORK**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **EXPECTED OUTPUTS****and indicators including targets** | **PLANNED ACTIVITIES***List all activities including M&E to be undertaken during the year towards stated CP outputs* | **WEEK** | **RESPONSIBLE****PARTY** | **PLANNED BUDGET** | **Expenditure (TRAC)** | **CO FINANCING** |
| 1-4 | 5-8 | 9-12 | 13-14 | Source of Funds | Budget Description | AmountUS$ | AmountUS$ | AmountUS$ |
| **Output 1** :Support to immediate needs assessments in the affected outer islands*Indicator:* Needs assessment producedBaseline: 0Target: 1 | * 1. Immediate support to assessment missions to island to survey damage and provide recovery estimates
	2. Catering to immediate needs (diesel fuel, salt water desalination plant, etc)
 | XX | X |  |  | MEECC, IDC | TRAC 1.1.3 | FlightsTravelOperationalEquipmentRepairscosts Supplies | 15,00025,000 | 15,00025,000 | 10,00020,000 |
| **Output 2**: Support response to early recovery planning processes and the development of multi-sectorial early recovery plan*Indicator:* Report: Cost recovery optionsBaseline: 0Target: 1 | 2.1 Support for developing analytical reports to design recovery planning2.2 Sharing of assessment information to support grant based fund raising efforts (coordination) |  | XX | X | X | MEECCRCO and UNDP |  | ConsultantAdvocacy | 10,000 | 10,000 | 10,000 |
| **Total (usd)** |  |  |  |  |  |  |  |  | **50,000** | **50,000** | **40,000** |

## *\* As at end December 2016*