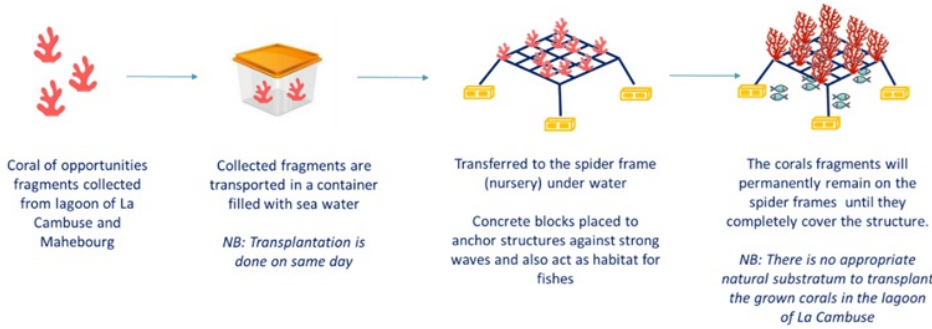
PROJECT REPORT

For MOL Mauritius International Fund

Implementing organisation's Details	Name: Currimjee Foundation Address: 38 Royal Street, Port Louis Telephone: +230 650 6240 l Mobile: +230 5421 5942 Contact name(s): Pascal Fleur; Ravi Luckhun Email: csr@currimjee.com | pascal.fleur@currimjee.com | ravi.luckhun@currimjee.com Website: https://www.currimjee.com/we-care#currimjeefoundation
Project Title	Coral Reef Restoration in the South East of Mauritius
Project Purpose	Coral reefs in Mauritius have been significantly impacted by anthropogenic activities, with a 2016 bleaching event affecting about 70% of the island's reefs (Bhagooli, 2017). These reefs are vital fish habitats, and their degradation has led to a significant decline in lagoon fish populations, impacting about 1,800 registered artisanal fishers and additional non-registered subsistence fishers (Naggea et al., 2021). Furthermore, coral reefs play an imminent role in climate change adaptation, protecting coastal zones and the depending economic activities. A lagoon survey carried out in 2018 and 2020 by the Currimjee Foundation revealed that the project site – La Cambuse Lagoon which is part of the Blue Bay Marine Park (a declared RAMSAR site since 2008) hosted a severely degraded marine ecosystem, but which still hosted a rich biodiversity.  *Figure 1: Satellite image of collection site and nursery* The project entails an active restoration of the marine ecosystem of La Cambuse lagoon using coral farming technique. This methodology includes introduction of artificial structures on which coral fragments are attached and grown. The purpose of project is to preserve and improve the biodiversity richness of the area, while protecting the livelihood of inhabitants dependent on the marine ecosystems such as fishermen and skippers. It will also help protect the coastal regions from sand erosion due to rise in sea level attributed to the impacts of climate change. Additionally, educational sessions around the importance of the marine ecosystem and coral farming which is being carried out in the project will help sea users to understand the importance of preserving this important and fragile ecosystem and at the same time help sustain such projects on the long term. *Bhagooli, R., 2017. State of Coral Reefs around Mauritius Island: implications for coral rehabilitation and management. Tokyo, Japanese Coral Reef Society.* *Naggea, J; Wiehe, E; Monrose, Sandy., 2021. Inequity in unregistered women's fisheries in Mauritius following an oil spill. Women in Fisheries Information Bulletin.*

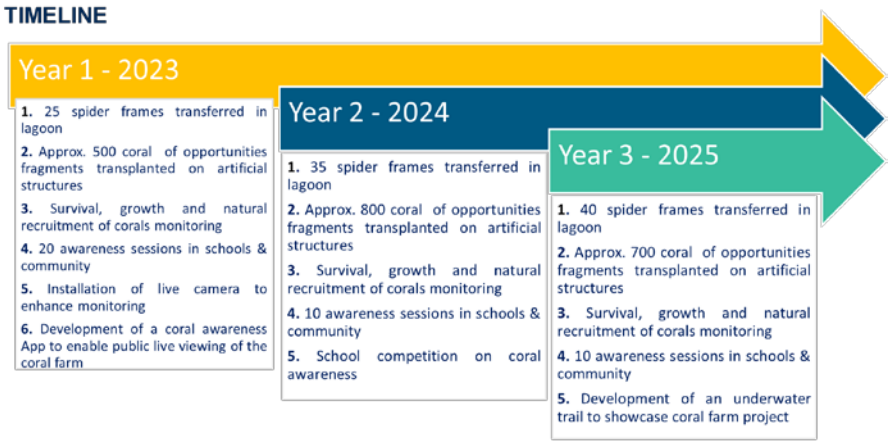
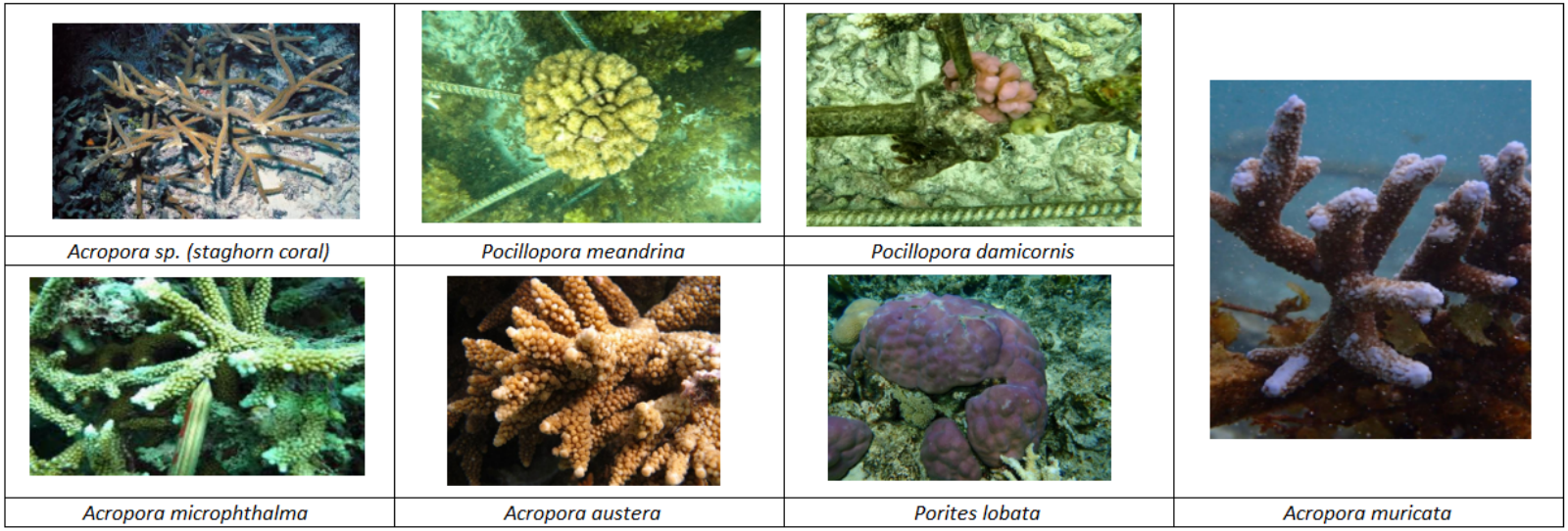
Project Summary	The project involves the active restoration of the coral reefs through coral farming in the lagoon of La Cambuse, whereby artificial structures called spider frames and concrete blocks have been introduced to affix and grow coral fragments collected in a non-destructive manner from the sea floor, support natural coral regeneration through sexual reproduction and provide immediate habitats for fish and other marine organisms. Regular maintenance is conducted to preserve the structures and remove predators like drupella snails that feed on corals. The survival rate, growth rate, natural recruitment, and marine biodiversity level is monitored regularly using scientific methods to measure the success of the project. Additionally, awareness sessions on sustainable fishing practices are being conducted with local fisherpersons, skippers and hotel guests to gain their support and reduce the ecological impact of their activities. Similar sessions are being held with secondary schools and university students.

Figure 2: Affixing coral fragments on the frames



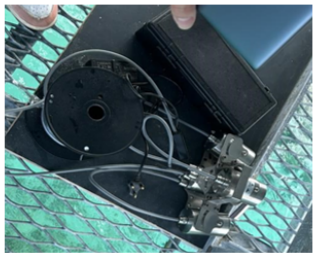
Timing	Planned start date:	April 2023	Planned completion date:	March 2026

Project Plan	
Project Purpose:	
To restore the degraded marine ecosystem of La Cambuse using coral farming technique	
Output 1:	
Coral farm implemented and a self-sustaining and functioning reef ecosystem is re-established.	
Activities linked to Output 1:	1.1 Introduction of artificial structures 1.2 Transplantation of coral fragments 1.3 Maintenance and removal of predators 1.4 Installation of live cameras with sensors 1.5 Survival and growth Monitoring
Output 2:	
Increased awareness of local fishermen, skippers and students on good fishing practices to protect the marine ecosystem and coral farming	
Activities linked to Output 2:	2.1 Identification of registered/unregistered artisanal fisherperson and skippers in the region 2.2 Organise awareness sessions with registered/unregistered artisanal fisherperson and skippers in the region 2.3 Involvement of secondary and university students in the coral farming project

Timeline	 ***Figure 3: Timeline of coral farming project***
Project results as at end March 2024	
Coral Transplantation & Survival	45 spider frames have been introduced in the lagoon of La Cambuse, with 511 coral fragments of 7 different coral species collected and affixed on the structures. The survival rate is above 90% on average for the 7 species. However, the growth rate which ranges 0.067 cm/year to 1.348 cm/year was noted to be slower than what is reported in literature, which can be attributed to the strong sea currents occurring in the region. Additionally, natural coral recruitment through sexual reproduction was noted on the spider frames, which validates the need of artificial structures in such instances to provide the hard substratum for coral regeneration. As at date 40+ new recruits have been reported. 35 additional spider frames will be introduced in second year of the project and approximately 500 additional coral fragments will be affixed.
Coral Species	 ***Figure 4: Coral Species***

Camera System	An underwater camera system has been installed at the nursery to monitor coral growth and observe marine life. This system provides valuable data for managing the nurseries and allows underwater coral videos to be shared via mobile apps. These videos help the public appreciate the importance of coral reef protection and restoration, particularly benefiting the younger generation and individuals who cannot swim (including individuals with a disability) by educating them about the marine environment.

Cable and power system located at the beach. Cables go from the beach to the camera underwater to supply power to the camera.



High-resolution underwater camera capable of capturing detailed images of corals and other marine species.

Figure 5: Live camera installation

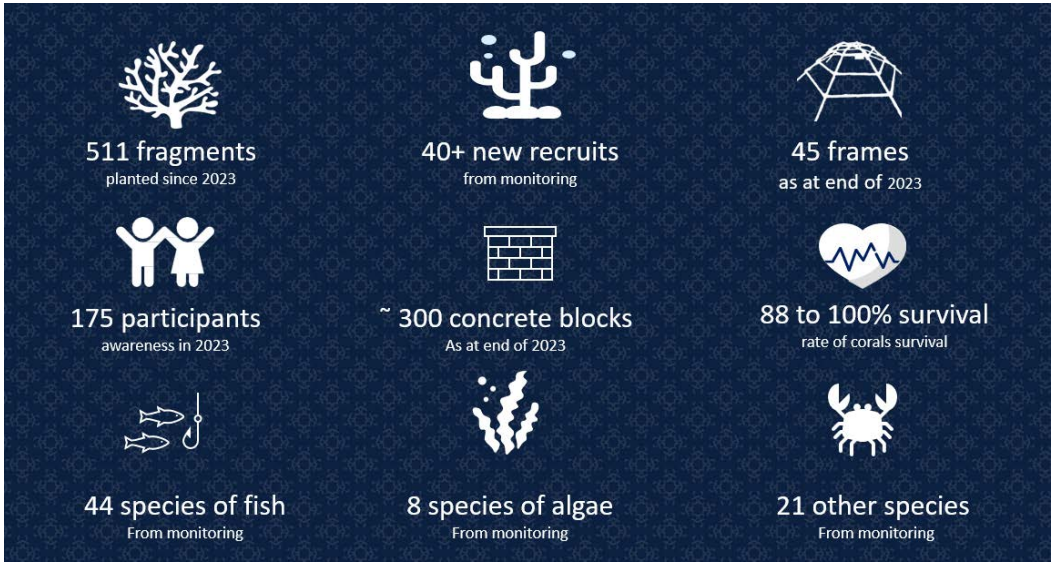
Progress in Number	

Figure 7 : La Cambuse coral farming KPIs