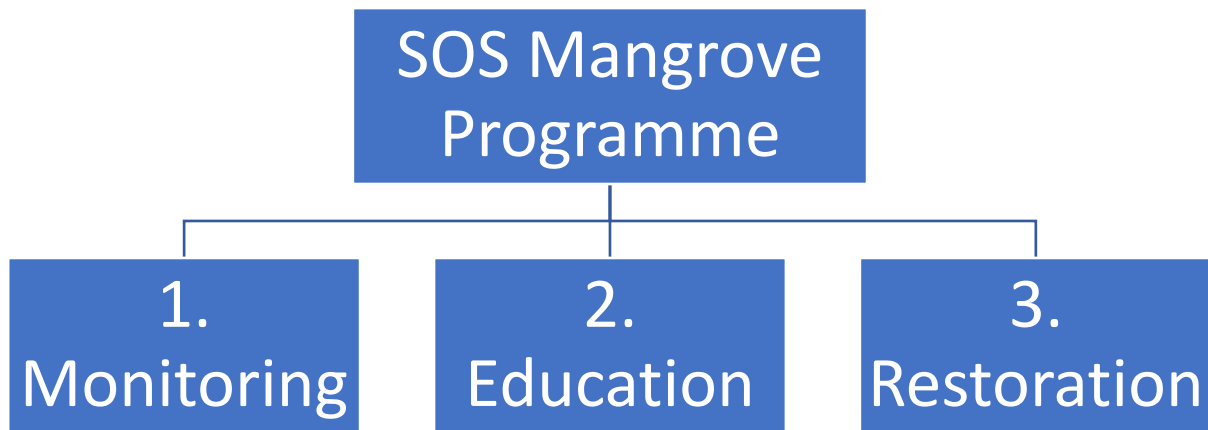


The SOS Mangrove Program Phase 2

The SOS Mangrove Program was initiated by Reef Conservation in 2020 following the oil spill of the bulk carrier MV Wakashio off the coast of Mauritius. Reef Conservation in collaboration with the relevant authorities, international experts and other stakeholders participated in the immediate response to the oil spill and developed long-term monitoring protocols to study how ecosystems will respond to oil pollution. The second phase of the program started in 2022 funded by the MOL Mauritius International Fund for Natural Environment Recovery and Sustainability, it aims to bridge knowledge gaps on mangrove ecosystems and to collaborate with communities to promote awareness of the importance of mangrove habitats. The program envisions mangrove restoration initiatives in Mauritius, by building a mangrove nursery, and strengthening connections with the various NGOs and stakeholders involved.

The 3 components of the SOS Mangrove Program



1. Monitoring

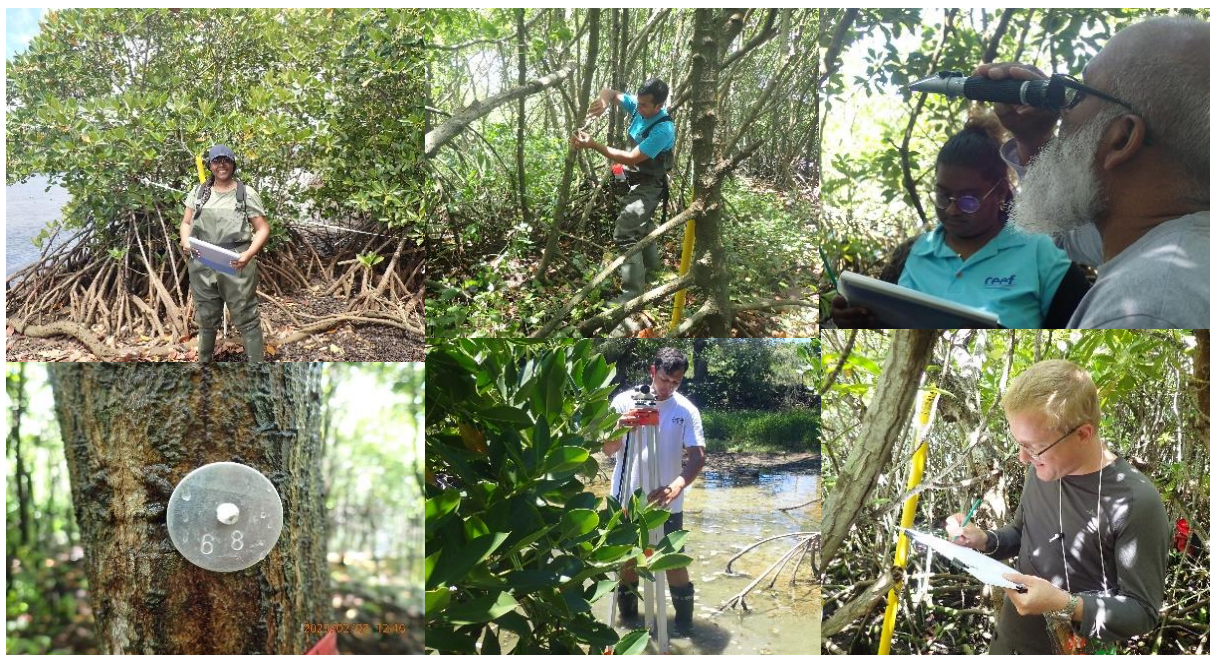


Figure 2 various aspects of mangrove monitoring conducted at 3 core sites.

The monitoring included the IEMP (Integrated Environmental Monitoring Programme) conducted in collaboration with AFRC (Albion Fisheries Research Centre), visual surveys conducted at 15 mangrove sites in the southeastern part of the island and 3 baseline sites, Anse La Raie, Melville Brachois and Ferney where elevation profile, salinity, hydroperiod, species distribution, forest structure and above ground biomass were investigated.

Under the IEMP, 6 sites impacted by the oil spill were assessed together with 1 control site. Results indicated that no oil was no longer present above ground in those 6 sites however the number of living seedlings was less than those recorded at the unaffected site.

The visual surveys were produced monthly in 2021, quarterly in 2022 and bi-annually in 2023 following the frequency of surveys conducted in various studies abroad due to more visible impacts during the initial spill and longer-term impacts in the long run. In total, 15 visual surveys have been produced since the beginning of the SOS Mangrove program. The surveys established that in 2023, there were 3 sites that still had oil visible within their sediments. A total of 20 tagged trees went missing from 2021 to 2023 and the reasons included plant death, illegal logging, cyclones, and other factors.

Studies were conducted at the three baseline sites, Anse La Raie, Melville Barachois and Ferney where a total of 39 permanent monitoring plots have been set up in well-preserved mangrove forest stands. 593 mangrove trees have been tagged since the start of the SOS Mangrove Programme. 125 trees were tagged in dwarf plots and 468 trees were tagged in normal plots. A technical report has been produced detailing facts and figures obtained for the zonation of mangroves, it's environmental conditions and the above-ground biomass.

2. Education



Figure 3 communication and outreach on radio, newspapers, TV (Top). Sensitisation of community members and school children (Bottom).

In regards to education, Reef Conservation was involved in the production of communication and educational tools, bis lamer, a fully equipped mobile educational bus, including field trips in the mangroves together with Eco-schools as well as citizen science surveys using our newly developed app, “Mangrove Matters” now available on the play store for android users.

Various means of communication were established including participation in 2 radio talk shows, interviews in 2 documentaries, articles published in at least 2 newspapers and over 3600 audience reached via our social media page.

A total of 8 bis lamer educational sessions were conducted around the island with various communities and organisations. Eco-schools also participated in 8 mangrove field trips where they were briefed on the importance of preserving mangroves.

The citizen science workshop and training ensued with 26 participants including an average of 15 community members for each site visited. A total of 12 sites were surveyed all along the coast of Mauritius.

The table below summarizes the audience who attended the sessions as well as the number of participants who were present.

Table 1 summary of the different activities and number of visitors reached under the education component of the SOS Mangrove program phase 2.

Description	Visitors (Childrens)	Visitors (Teens)	Visitors (Adults)	SUB TOTAL (Visitors)
Bis lamer and community outreach	366	125	433	924
Mangrove field trips and Eco-school visits	195	196	53	444
Citizen science workshop and field surveys			174	174
TOTAL	561	321	660	1542

3. Restoration



Figure 4 completed mangrove nursery (Left) and visit of restoration site at Le Morne, Mauritius with NGO, ADD during citizen science surveys (Right).

Under the Restoration component, one mangrove nursery of 300m² has been built in Melville where both species of mangroves are present as well as many mangrove associates. The mangrove nursery is expected to accommodate around 2000 plants and subsequent propagation will begin shortly after relevant permits are acquired and one staff will be hired to support the mangrove nursery, maintain infrastructure, and monitor the seedlings being propagated.

The mangrove restoration site by another NGO, ADD (Association de developement durable) was also visited during citizen science surveys to showcase what can be achieved and support local restoration efforts.