GULF AND CARIBBEAN FISHERIES INSTITUTE

Activity 2a: Facilitate community-based Marine Litter and Marine Protected Areas Projects under the ACP MEA III Work plan

a) Implement all aspects of a small grants program in support of marine litter prevention and reduction(consisting of at least 3 small grants) Output 2.3.6 ACP MEAs III.

Through this small grant programme, 3 marine litter projects with a focus on plastic reduction, reuse and recycling were awarded with funding in September 2022.

MARINE LITTER GRANTS

Citizen science as a management strategy for marine litter in the biosphere reserve of Cienaga Grande de Santa Marta, Colombian Caribbean (INVEMAR, Colombia)

The CiénagaGrande de Santa Marta (CGSM), located in the department of Magdalena, is the most productive coastal lagoon complex in the Colombian Caribbean; It is also a biosphere reserve, RAMSAR wetland, and an area of importance for the conservation of migratory birds. Despite its importance, significant amounts of marine debris have entered this ecosystem, affecting the environmental quality of the environment and the communities that live there, due to deficiencies in basic sanitation in coastal populations, for which it is estimated that close to 65% of the solid waste generated is deposited in natural bodies of water. This project contributed to different strategies that seek to guarantee environmental sustainability through the proper management of solid waste disposal. This project set a precedent about the relevance to implement citizen science projects with community associations that are dedicated to activities such as artisanal fishing, aquaculture, waste transformation, among others. The full report and supporting documents can be accessed here.

Plastics Solutions Academy (Sea of Life, Belize)

In 2018 Belize passed a national policy to phase out all single use plastics. The policy represents an important step forward for a nation whose environment is central to its culture and economy. However, the policy lacks a clear implementation plan and enforcement mechanisms. Sea of Life (SoL) hosted a Plastic Solutions Academy (PSA) in Belize City, the most populated municipality in the nation and a seafront community and provided education, network opportunities, and capacity building for local stakeholders through a series of workshops. The Plastic Solutions Academy brought together 11 participants ranging between 18-49 years who were representative of all six districts of Belize. They attended over 26 hours of workshops which were a mixture of online and full day events in Belize City. Participants were supported in the development and piloting of locally designed solution to prevent and reduce marine litter in Belize. Sea of Life is currently working to secure support for the incubation of two solutions that were developed from this program. Refillable Corozal will introduce refillable water stations in school campuses whilst Keef and the Reef, an ocean literacy campaign will focus on a book for children between the ages of 3-5 years old. The campaign incorporates key emotional appeals and power of choice to encourage children and parents to choose alternatives to single use plastic products. The full report and supporting documents can be accessed here.

Reduit Beach and Vigie Marine Litter Prevention Research Project (Greening the Caribbean, Saint Lucia)

The Reduit Beach Marine Litter Prevention Research Project (The Project) used cutting edge behavioral science approaches through training from The Center for Behavior and the Environment. The objective of

this project was to create more effective ways to prevent Saint Lucian residents littering at the Reduit Beach and Vigie Beach project sites. The process applied behavioral and social and design thinking to identify a solution that can put an end to beach littering specifically, and possibly littering in general. The Project also attempted to measure the effectiveness of the environmental solution to solve the problem of marine litter caused by land based human behavior at Reduit Beach and Vigie Beach. The identified behavioral solution was complemented by design and installation of high visibility anti–littering messaging/signage along foot and vehicle paths leading to the beachfront project sites. The full report and supporting documents can be accessed here.

b) Implement all aspects of a small grants program in support of effective marine protected areamanagement (consisting of at least 5 small grants for example on MPA management effectiveness,capacity assessments and other management priorities) Output 2.2.4 and 2.2.5 ACP MEAs III.

Currently three small grants supporting management capacity building for the implementation of effective MPAs, and 3 hybrid grants in support of marine litter management were implemented.

MARINE PROTECTED AREAS GRANTS

Financial sustainability through an Eco-Friendly Store promoting behavior change in single use plastics (BICA, Honduras)

In an effort to decrease single use plastic making its way to dumps in the Caribbean and improve sustainable financing in the Sandy Bay-West End Special Marine Protection Zone (SBWE-SMPZ) BICA implemented an Eco Friendly Store. The Eco Store aimed to have mostly local (Honduran) products, however the only products that are not local are reusable single use alternatices, 4Ocean jewelry made from recycled materials and reef safe sunscreen. There is a high priority to empower local artisans. The initial intention was to have the Eco Store based at one or both ports (Mahogany Bay and Port of Roatan), however this was so far unsuccessful fur to expansions being underway and delays in the approval process. Nonetheless an opportunity arose with a tour operator called Coconut Adventures where a partnership was made where they provided a space for the Eco Shop in return for informed guides on glass bottom boat and mangrove tours. The full report and supporting documents can be accessed here.

Evaluating sites to confirm SCTLD presence and for treatment and monitoring prioritization activities within the Cayos Cochinos Archipelago Natural Marine Monument (Honduras Coral Reef Fund, Honduras)

Due to the multiple new confirmed SCTLD-infected sites in various areas within the MPA, there was a need to increase efforts to prevent the further spread of the disease has arisen. The CCANMM conservation team evaluated all sites where the disease was reported and sites with high percentage of coral cover and diversity were established as priority treatment and monitoring sites. Treatment was applied at these sites with colonies being tagged and mapped for follow-up activities. Patrolling and ranger operations were enhanced, as well as environmental education and awareness activities for the local communities and tour operators. This project increased treatment application and monitoring efforts; strengthened data collection, analysis, and report capacities; promoted local actor awareness about SCTLD; and increased patrolling operations within the MPA, as well as ranger abilities and capacities. The full report and supporting documents can be accessed here.

Increasing the management capacities of the Cayos de San Felipe National Park with an emphasis on threatened and critically endangered species (Fundación Antonio Núñez Jiménez de la Naturaleza y el Hombre, Cuba)

The PNCS which was declared a National Park and SPAW Site, works in the conservation of threatened species. The reinforcement of protection and surveillance activities and community environmental education have been one of the main strategies developed for the conservation of these species. Species such as turtles and manatees are under pressure from illegal hunting and fishing and bycatch. This project conducted a series of water surveys and patrols, covering over 440 nautical miles and 230 hours of

observation, revealing the presence and relative abundance of Antillean manatees in and around the park. Additionally, sea turtle conservation efforts led to the identification of 330 nests across various key locations. Importantly, the project identified threats to manatees and sea turtles that will inform conservation management and direct enforcement efforts. The project included community outreach activities, such as environmental festivals and workshops, to raise awareness and engage local communities in conservation efforts. Furthermore, the project aimed to integrate communities into conservation efforts through training and collaboration with local fishers. The project's diverse initiatives highlighted the commitment to safeguarding the unique species and ecosystems of PNCSF–a SPAW site critical to the survival of Antillean manatees in their entire distribution range. The full report and supporting documents can be accessed here.

HYBRID GRANTS

Community Based Conservation at Cuba's Guanahacabibes National Park (The Ocean Foundation, Cuba)

Located on Cuba's western tip, Guanahacabibes National Park (GNP) is a UNESCO Biosphere Reserve (1987) and national park (1991). GNP's location at the confluence of the Gulf of Mexico, Caribbean, and the fast-moving Yucatan Straits, leads to the accumulation of thousands kilograms of oceanic flotsam. During this project considerable progress was made regarding mangrove restoration, removal of marine debris, capacity building on sargassum composting, and education of local communities through several workshops in La Fe, Cuba, a fishing village directly outside PNG. A total of 41 residents of La Fe participated in mangrove restoration and marine debris removal workshops. An estimate of three hectares of mangrove habitat were left in improved condition, which is related to the reduction of invasive vegetation and marine debris. A total of 42 cubic meters of invasive vegetation were removed and another 9 cubic meters of marine debris were taken to a landfill located 2 km from La Fe. A hectare of mangrove habitat was restored through the planting of 1,450 new propagules. Over 45 children from the local primary school of Calixto Garcia Iñiguez also participated in educational workshops. The full report and supporting documents can be accessed here.

Bluefields Bay MPA Marine Litter Research, Education and Multi-Site Cleanup Event (BBFFS, Jamaica)

Fishing is a key industry in the growing Bluefields community, with approximately 350 fisher-folk using this coastal-marine area for business and livelihood. In 2009, as development and pollution levels increased, BBFFS leaders foresaw a need to protect marine resources, and partnered with the Ministry of Agriculture and Fisheries to declare the Bluefields Bay Special Fishery Conservation Area an MPA, one of the largest in Jamaica, at 1,375 hectares. This project enabled the BBFFS to lead the community in building research and educational capacity to continue protecting the Bluefields Bay for years to come. It's scope included 1) repairing an existing patrol vessel to enable regular collection of marine litter data, the hosting of scientific groups for marine health research, plus a more efficient monitoring, protection and conservation effort within the MPA and 2) hosting a community marine litter prevention workshop and multi-site coastal cleanup event, to increase educational capacity by sharing data collected on marine litter in phase 1, training for prevention and reduction of marine litter, and increasing community volunteerism in marine litter prevention in areas surrounding the MPA

Waste, People and Reef Health (BICA, Honduras)

BICA regularly implements a Citizen Science program, brand audits, which consists of collecting data on solid waste through specialized reef, beach, creek, mangrove, and community cleanups. This data has supported the approval of a single-use plastic ban for plastic bags, straws, bottles and foam in the municipality of Roatan. Close to 22,000 articles were collected from October 2022 -May 2023 with 233 volunteers through brand audits conducted with the private and public sector; 74% was identified as being single use plastic and the remainder being recyclable material. Eighteen households also participated in a waste separation project in Sandy Bay with over 400 kg of recyclable waste collected since October 2022 by the recycler's association. Through this project BICA used aerial drones as a non-intrusive method to monitor, identify and track marine litter and understand its origins in the Bay Islands National Marine Park. Capacity was increased with partners from the Bay Islands National Marine Park Technical Committee with training in the use of drones

and photogrammetry software, following which two major sites were selected and monitored. Drone data was correlated with the data collected by citizen science activities to create maps and other products which can be shared with stakeholders to improve waste management on the island of Roatan. The full report and supporting documents can be accessed here.