

Sea and sand



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As it continues to finance projects aimed at raising environmental awareness and promoting sustainable development in line with the United Nations list of Sustainable Development Goals, the United Nations Global Environment Facility's Small Grants Programme (SGP) is helping two organizations successfully replenish Barbados' coral reefs and bring new life to abandoned areas of the Walkers Sand Quarry in St Andrew.

In a recent panel discussion on the role of fisheries in the blue economy, marine biologist and owner of Dive Barbados Blue Watersports, Andre Miller stated that the majority of the coral reefs off the coast of Barbados had died in recent years owing to pollution, over-fishing and other factors. "All we have left now are 1.5 square kilometres of patch reef, 16 square kilometres of bank reef, and one square kilometre of fringing reef; that is less than four per cent of the part of Barbados we see."

As a result, the Coral Reef Restoration Alliance of Barbados, known as CORALL, has embarked on a mission to "engage members of the community in the conservation of biodiversity and environmental stewardship" by reinvigorating coral reefs in two locations on the northwestern coast of Barbados, namely Folkestone in St James and the waters off Port St. Charles in St Peter.

Project Management Specialist and a member of the CORALL team, Tracey Phillips, said, "Our reefs are subject to several stressors which have had an adverse effect on their sustainability, including damage from vessels, waste water runoff from agricultural production along with effluent, and fishing."

So they took small fragments from three different species of coral, grew them in a laboratory for just over a year, then replanted them offshore. President of CORALL, Susan Mahon, continued, "After that, we monitored them and measured their growth every two weeks for the first two months, using a team of volunteers drawn from the community."

In terms of education, Mahon said, "Most people do not know that coral reefs are made up of animals and not plants, and we have started a public education campaign for all ages stressing the importance of sustaining our reefs. We have held talks with children attending summer camps, staged a poetry competition, and are also in the process of making videos." Phillips was confident the replanting project would be successful "because there were some reefs in Mexico that had completely died off, but after a similar project, within 20 years they were thriving again."

Moving to the east coast of Barbados and heading inland, the Walkers Sand Quarry has played a prominent role in Barbados' construction sector for the last 50 years, supplying some 98 per cent of all sand used in local building projects. As a result, some sections of the 300-acre property have been fully exhausted, but a group of specialists in sustainable agriculture are busy bringing new life to those depleted areas.

Formerly based at the Ministry of Agriculture's Graeme Hall headquarters, the Caribbean Permaculture Research Institute of Barbados (CPRI) is transforming 120 acres of the Walkers quarry into the Walkers Reserve. The man behind the initiative, Ian McNeel, said, "This is the largest regeneration project in the Caribbean. It invests in the new economy that recognizes the wealth and health of our oceans, our soils and our fresh water systems, and will help us build resilience in a time of climate chaos, as we saw first hand with the three major hurricanes that struck the region last year."

Permaculture specialist, Erle Rahaman-Noronha, who has taught permaculture for more than 20 years, said, "Many quarries are abandoned at the 'end of life', when their resources are fully depleted; this model shows how they can be restored and used for agricultural purposes. This one is ideally suited because there is a fresh water estuary nearby (Long Pond), a dune system and a 120 feet ridge along with the mined-out areas. Initially we started a plant nursery at Walkers, and when those plants matured, we transplanted them to the depleted sections of the quarry in a strategic fashion aimed at bringing the soil back to life. Future plans include expansion of the natural waterways and the introduction of fish to those waters."

McNeel added, "We are creating a food forest and are harvesting some 60 different species, including pomegranates, pineapples, khus khus, bananas, cassava and Jamaican ackee, among other plants, and as part of our educational component and community outreach we are showing residents how to get value-added products from these crops. We also have several beehives on site and we produce our own honey and beeswax here."

Since its establishment four years ago, some 300 people from all over the world have been trained in permaculture at CPRI's original Graeme Hall site and the new one at Walkers, and the organization also wants to build classrooms and dormitories at Walkers as it expands the training component of its operations.

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