

## \$9.5-million reef project

Wednesday, April 25, 2012

THOSE who fish off the coasts of Clarendon and St Catherine will be able to catch bigger and larger quantities of fish once the artificial reef project at the Three Bays Fish Sanctuary is completed.

It will be implemented and managed by the Caribbean Coastal Area Management Foundation (C-CAM), thanks to a \$9.5 million donation by West Indies Alumina Company (WINDALCO), a joint venture of UC RUSAL Alumina Jamaica Ltd & Jamaica Bauxite Mining Ltd.



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Under the agreement, which was inked during the opening of the Foundation's field office in Salt River, Clarendon on Friday, WINDALCO will finance the boundary demarcation, the installation of a coral nursery, the purchase of materials, as well as monitoring and maintenance activities. The area will then be declared a no-fishing zone.

No date is yet set for the project to get off the ground, but planners expect it to be in a few weeks, as it is contingent on the return of lead scientist Thomas Goreau who helped develop the technology which will be used to build the reef.

In his presentation Friday, C-CAM scientist Brandon Hay, explained the importance of the work.

"Those of us who fish this area regularly will know that it is a shadow of what it used to be and every trip is a growing disappointment. Each time you go out you will notice something different, you will catch less, you will work harder," he said.

"The general challenge is that the area is overfished," WINDALCO's senior information & public affairs officer Kayon Wallace told Environment Watch later. "Fishermen are catching fewer and smaller fish because they are not being given the opportunity to grow. They have no safe haven, so what the project will do is create this haven where they will be given that opportunity to breed and grow and then they'll be released."

"That entire area has 3,000 fisher families so you can understand the impact on livelihood and quality of life if they keep fishing without giving the fish time to mature," she added.

Salt River is part of the Portland Bight Protected Area and is home to fish sanctuaries and forest and game reserves. WINDALCO's shipping facility, Port Esquivel, is also located in the protected area.

The reef will be created using Bio Rock technology which was conceived and developed at the Discovery Bay Marine lab. Some work was also done in the

Indo-Pacific.

"We will be using a process called the Bio Rock technology which is an electrified reef. Basically, you have a metal frame. You run an electrical current through that and over time, that ionisation (the chemistry of it) causes the precipitation of a layer of calcified minerals on that metal frame. That basement is very similar in consistency to the actual skeleton of a living coral and so it forms the ideal form of substrate for the settlement of coral and also continuing research has suggested very strongly that somehow... there is a measurable and significant increase in the resilience of the reef in an electrified field type of setting," said Hay.

"The full biophysical reason why this is so is the subject of ongoing research but the co-developer of the process, Dr Thomas Goreau, will be the principal scientist who will be helping us install these reefs and monitor them."

Hay added that the naturally occurring coral reefs have been decimated by overfishing and changes to the climate and are unlikely to exist anywhere else in the world during his lifetime.

"And so the mantra in coral reef management is building for resilience. It is significant that this Bio Rock process is believed to contribute significant amounts of resilience to the reefs, to the corals themselves. The corals are thought to grow faster and be more resilient to some of the stresses which would normally and is at the moment creating such havoc on our reefs. I'm talking about the elevated temperatures, the siltation and so on," he said.

In welcoming the sponsorship C-CAM's executive director Ingrid Parchment was hopeful that the artificial reef project would remedy the situation and increase fish yields.

"We will be able to improve and increase the fish stock in Jamaica so the fishers will have bigger fish to catch,"

she said.

C-CAM manages three fish sanctuaries in the Portland Bight Area

At Friday's signing, WINDALCO's environment, health and safety manager Alicia Burnett explained the stages of the million-dollar project.

"The project will be implemented in three phases. In the first phase, there will be mobilisation of the resources and the commencement of the coral nursery. In the second phase, the artificial reef will be built and installed and the third phase focuses on monitoring," she said.

Burnett added that while the project will be managed by C-CAM, WINDALCO would maintain its involvement through its support of the public education efforts.

*Please note that this sum is in Jamaican dollars, and one Jamaican dollar is worth about one cent US, so the amount is actually about US\$100,000. The funding is to our local partners, the Caribbean Coastal Areas Management Foundation for mitigation of damages caused by dredging a bauxite shipping port, and most will go to support of their activities. The Global Coral Reel Alliance will be playing a supporting role to their important community-based management efforts.*

Read more:[http://www.jamaicaobserver.com/environment/9-5-million-reef-project\\_11323018#ixzz1FoLzvYY](http://www.jamaicaobserver.com/environment/9-5-million-reef-project_11323018#ixzz1FoLzvYY)