

NEWSLETTER

Coral Component Wetland Conservation and Coral Reef Management Project



Foreword

The 1998 mass coral bleaching event marked the start of efforts to nationally coordinate coral reef monitoring in the Maldives. Since then the government has supported a National Coral Reef Monitoring Programme where some 15 sites have been monitored on a regular basis. The results have provided an excellent time series of substrate cover useful for managing the reefs. However, there are limits to what is possible using the human and financial resources available to government.

The purpose of this newsletter is to disseminate information about efforts to extend this National Coral Reef Monitoring Programme using Tourist Resorts and Dive Centres to reflect the principle that the custodians and users of natural resources should participate in their monitoring and management.

The importance of coral reefs to Maldives cannot be over-stated - the very existence of our islands depend on the production and replenishment of coral sand and rubble from living coral reefs. Both tourism and reef fisheries also depend, to a significant extent, on the health of our coral reefs.

We know that coral reefs are extremely vulnerable to climate change, particularly to elevated sea-surface temperatures. They may also be vulnerable to ocean acidification. If we are to safeguard our homes, our tourism related livelihoods and our food security

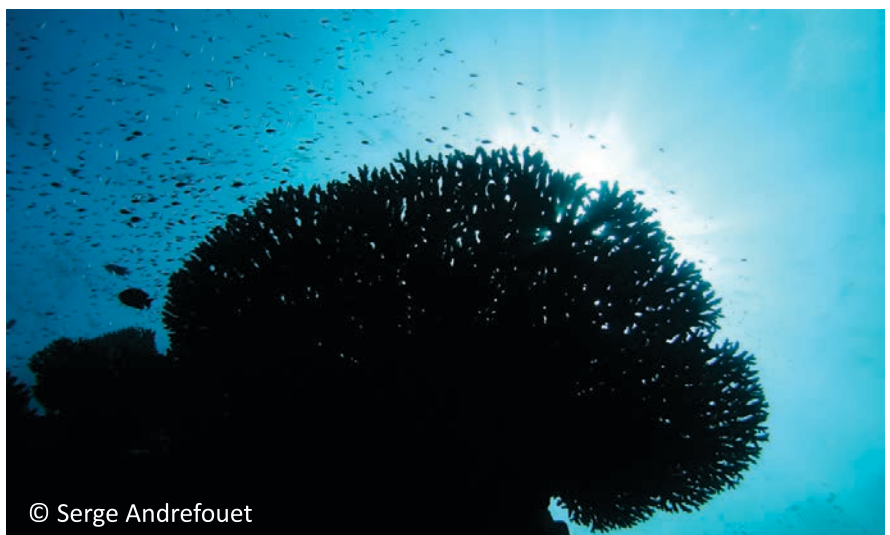
we need to better understand the changes taking place in our coral reef ecosystems. We need to monitor the coral reefs for longer periods of time to generate the evidence based research to guide our management decisions. To this end a broad spectrum of ecosystem changes need to be monitored regularly, over large areas and in a consistent and cost-effective way.

The European Union and Australia currently support the Maldives Climate Change Trust Fund. The Fund is administered by the Climate Change Advisory Council and the Ministry of Environment and Energy. The Fund supports the Wetland Conservation and Coral Reef Monitoring for Adaptation to Climate Change (WCCM) Project. Part of this Project supports the development of the National Coral Reef Monitoring Programme with an emphasis on increasing participation by Resorts and Dive Centers. Sixteen protocols have been developed ranging from sea-

level inundation to reef fish consumption that will be monitored in a systematic way. An online web-enabled database will be developed to allow entry of the monitoring data. The Project is expected to generate the scientific evidence necessary for us to better understand and so more effectively manage our coral reefs.

We would, therefore, like to welcome you to the first edition of this newsletter and extend our thanks to the five resorts and dive centres who have committed to help pilot tourism sector participation in this project. Hopefully the pilot will prove successful and can be rolled-out to more resorts and dive centers in the future. We, therefore, look forward to your continuing interest and support.

M. Shiham Adam
Director General - MRC



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NATIONAL CORAL REEF MONITORING PROGRAM BY MARINE RESEARCH CENTER

The 1998 was a bad year for the coral reefs of the world. Mass coral bleaching events occurred in the world killing around 98% of coral populations in some parts of the world. In the Maldives 98% of the coral reefs were severely impacted as a coral bleaching associated with increased sea surface temperature. This led to a nationwide concern about the stress exerted on the coral reefs of the Maldives. The Maldives was on highlight in international media due to this mass bleaching event as tourism and fishing industry are highly dependent on coral reefs.

This in turn led to the start of the National Coral Reef Monitoring Project in 1998, a government funded research project surveying 15 sites throughout the Maldives.

Surveys of these sites have been carried out annually, however in recent years due to shortage of staff and low budget had prevented the Marine Research Center from carrying on surveys. Plus recent downsizing of government staff had fully immobilized the Coral Reef Research Unit in



proceeding with the monitoring of the reefs. As part of strengthening coral reef monitoring capacity at national level, a coral reef monitoring project was initiated through Maldives Environmental Management Project (MEMP) administered by Ministry of Environment and Energy (MEE). This initiative was further developed as a coral component of Wetland Conservation and Coral Reef Conservation (WCCM) project though funding by Climate Change Trust Fund (CCTF).

CCTF is financed by European Union and the Government of Australia. This fund with an overall of appraising climate change adaptation and mitigation the project is administered by the World Bank and is implemented by Ministry

of Environment Energy.

The coral component is operated by Marine Research Center, through Ministry of Fisheries and Agriculture. Partners to the project include Ministry of Environment and Energy, Ministry of Tourism Arts and Culture and Environmental Protection Agency. The project will be rolled out to the tourism sector, especially resorts as collaborating partners who are regarded as significant stakeholders as resource users.

A Memorandum of Understanding (MoU) between all the stakeholders will be signed identifying roles and responsibilities of each party to the MoU. The resorts will be asked to monitor and collect minimum one data set annually from a fixed reef in their resort.

Convention of Biological Diversity (CBD) and Ecosystem Approach to Coral Reef Monitoring Framework

Among the principles of the ecosystem approach specified in decisions made under the Conference of the Parties (COP) to the Convention on Biological Diversity (CBD) that "Management should be decentralized to the lowest appropriate level. This has been followed as guiding principle developing the Coral Reef Monitoring Framework under the coral component of WCCM.

CLIMATE WATCH PRINCIPLES

- CLIMATE CHANGE FOCUS
- ECONOMIES OF SCALE
- INFORMATION COLLECTED BY STAKEHOLDERS
- RAISES AWARENESS / EDUCATION
- INTERGRATED AND SCALABLE
- SHOWS COMMITMENT OF STAKEHOLDERS

PROJECT UPDATE

Since the development of the project the project had witnessed up's and down's. In the initial stages the project had difficulties in appointing staff for the project due to lack of expertise in this field in the Maldives. First a foreign consultant was hired by the project as a project advisor. Dr. Alec Dawson Shepherd a very experienced Marine Biologist from United Kingdom was responsible for formulating this project. He is one of the early researchers of the Maldivian coral reefs. He also worked with Marine Research Center on various projects on the coral reefs of the Maldives. The joining of Hussein Zahir as Coral Component Coordinator to this project had been another major development in the project. Hussein Zahir had been working with Marine Research Center for more than 25 years and he was leading Coral Reef Research Unit when he left Marine Research Center. He is credited for developing and running the two major coral reef monitoring projects for the Marine Research Center. The project had also engaged Yoosuf Rilwan from Marine Research Center as a resort Liaison Officer who will be coordinating with the resorts as the project develops. He had worked with Hussein Zahir and Dr. Shepherd on the existing

coral reef monitoring projects for 5 years.

During the development of the project meetings and trips were conducted to see the interest level of the resorts in joining this project. In developing the project Marine Biologists working in the resorts and relevant experts were consulted.



The idea of the project was to develop a nationwide monitoring program in which the resorts participated. So existing survey projects were identified and the project coordinators were consulted to standardize the methods of data collections.

Since then the project had developed and five resorts from

South Male' atoll and North Male' atoll had signed the MoU with the project.

There are several components to the project. The main components of the project are; the developing of monitoring protocols for various monitoring components of this project, to develop a web enabled database to enter the data collected by resorts, training of participating resorts to collect the data on the given protocols and finally the resorts will be asked to submit at least one data set from each protocol annually.

The monitoring protocols for various monitoring components have been peer reviewed through independently contracted consultants and are ready to be used. At the moment the work of developing the web enabled database is going on and this work had been given to the Lim Geomatics Inc. from Canada. The consultants from this company recently came to the Maldives to discuss ways to develop the database. The plan is to complete the database by October 2013 and trial it in the field. Also selection of consultants for the implementation of required training is currently ongoing. The project hopes to begin the required training by the time the database is completed.

Key elements of the Coral Reef Monitoring Project

- 1 A set of standardised monitoring protocols
- 2 A web enabled database to handle the data
- 3 Training for the tourism sector to collect the data and use the web enabled database
- 4 The tourism sector does the monitoring, not government
- 5 The Maldivian environmental sector provides training support
- 6 Government sets the standards and audits compliance

The following resorts have signed MoU's as partners to the project in November 2012. A focal point and four staff responsible for implementing the relevant protocols have been assigned from each resort.

Jumeirah Vittaveli

Previously known as Bolifushi , Jumeirah Vittaveli is a luxury resort located in the South Male, atoll of the Maldives. The resort was renovated and opened very recently.



Paradise Island Resort and Spa

Know as Lankanfinolhu the Paradise Island belongs to the one of the leading business initiative known as "Villa". (North Male')



Taj Exotica Resort and Spa

Taj Exotica is a another luxury resort just 15 minutes from Male'. The resort is situated in the South Male' atoll.



Banyan Tree Maldives Vabbinfaru

Vabbinfaru in North Male' atoll is one of the resorts in the Maldives which started towards the conservation of the Coral reefs in the Maldives.



Bandos Island resort and Spa

Bandos Island resort in North Male' atoll is one of the oldest resort in the Maldives. The resort is just 15 minutes from Male'atoll.



Contact detail:

Yoosuf Rilwan | Liaison officer,
Coral Reef Monitoring Project, Climate Change Trust Fund,
Marine Research Centre, Ministry of Fisheries and Agriculture,
Malé, Rep. of Maldives.

Tel: 332 2242 | Mobile: 779 1202
email: coralcomponent@mrc.gov.mv