



EUROPEAN UNION OF AQUARIUM CURATORS

REPORTING FORM

FOR *IN SITU* CONSERVATION PROJECTS FUNDED

2018/2019

1 TITLE OF PROJECT	Coral Husbandry Workshops Maldives	
2 NAME OF APPLICANT	Nicole Kube & Pablo Montoto Gasser	
INSTITUTION	German Oceanographic Museum Stralsund Germany/ ZooAquarium de Madrid	
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DATE OF REPORT:	August 2021
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PLEASE SEND YOUR REPORT TO ISABEL KOCH, SECRETARY-GENERAL OF EUAC

(ISABEL.KOCH@WILHELMA.DE)

AND COPY TO

João Falcato : jfalcato@oceanario.pt; Brian Zimmerman: zimmerman@bzsociety.org.uk

3 LOCATION OF PROJECT (REGION & COUNTRY)

Maldives, Indian Ocean

4 PROJECT START AND END DATES:

August 2018 – December 2019

5 PROJECT CO-ORDINATOR, ADDRESS AND INSTITUTIONAL AFFILIATION

(IF DIFFERENT FROM APPLICANT)

6 PROJECT TYPE

(TICK ANY COMPONENTS THAT APPLY)

- BIOLOGICAL/ECOLOGICAL RESEARCH
- VETERINARY/CONSERVATION MEDICINE
- ANIMAL WELFARE
- CAPTIVE BREEDING
- RE-INTRODUCTION/RE-STOCKING/TRANSLOCATION
- HUMAN-WILDLIFE CONFLICT

- EDUCATION/PUBLIC AWARENESS
- TRAINING/WORKSHOPS
- COMMUNITY-BASED/SOCIAL POLICY
- ECOTOURISM/SUSTAINABLE DEVELOPMENT
- SUSTAINABLE USE
- WARDENING/LAW ENFORCEMENT
- PROTECTED AREAS MANAGEMENT
- OTHER: _____

7 FOCAL SPECIES (COMMON AND SCIENTIFIC NAME)

Stony corals (*Acropora spec.*; *Pocillopora spec.*, *Porites spec.*; etc.)

8 IUCN RED LIST STATUS (OR OTHER THREAT LISTING) OF FOCAL SPECIES

CITES YES NO

APPENDIX II

9 PROJECT BACKGROUND

Coral reefs provide food and livelihoods for the people in Maldives, fishing, building material and most of all a wide range of employment and commercial opportunities associated with tourism. In the past, some restoration efforts were started but they were not very successful due to lack of knowledge in handling corals and coral reef ecology. To fulfill this gap this project has started coral husbandry workshops in Oct 2015 and has educated up until 2019 around 250 local people on seven different Maldivian islands (4 hotel islands, 3 local islands). In theoretical and practical lessons, the participants learned about the ecology and importance of biodiversity within a healthy coral reef, threats to coral reefs, handling techniques of living corals and techniques for reproduction of living corals and successful strategies for restoration. Coral tables were equipped with coral fragments as well as planted directly into the reef. The whole course lasted 4 days. The project managed also that the locals developed an increased interest in the health and care of their coral reefs, resulting in regular cleaning actions, guest talks, guided tours and advanced care of the planted fragments.

10 WAS THE OVERALL PROJECT PURPOSE FULFILLED?

Yes.

Unfortunately, a global El Niño event in 2016 caused severe damages in the reefs of Maldives and the project islands from 2015 due to massive coral bleaching. Most of the project islands could rebuilt their reef projects thanks to the knowledge they had gained in the workshops. We kept in contact with the hotel islands, and we got regular reports on their progress, except of one, which had a change of management.

We decided to hold additional workshops on local islands, as the situation is completely different to hotel islands. A mixture of local population and touristic premises like guesthouses or smaller hotels characterizes the chosen local islands. This is due an increased interest in alternative travelling to meet “the real life” on the Maldives, so local people are gaining income from renting private accommodation.

The chosen islands were Maafushi (South Male Atoll), Rasdhoo (Rasdhoo Atoll), Ukulhas (Alif Alif Atoll). We got the invitation to hold the workshops either with local dive clubs (Maafushi, Rasdhoo) or with the Council of the island (Ukulhas). Esp. on the last island the number of participants was quite high and included adults as well as a school class and Boy Scout Group.

11 WHAT OBJECTIVES WERE MET?

We accomplished three more workshops on three local islands with theoretical and practical lessons including the following objectives:

- 1.) Transfer of knowledge about ecology and biodiversity of a coral reef and the threats
 - 2.) Transfer of knowledge about abundant coral species and status of reefs of the listed islands
 - 3.) Transfer of knowledge about sampling strategies with minimum impact on the reef maximizing the number of collected species
 - 4.) Lesson about fragmentation techniques, different attachment methods (advantages and disadvantages), best spot for grow out
 - 5.) Certification of participants
 - 6.) Recommendations about best location for coral restoration
 - 7.) Recommendations on reduction on human impact factors, if necessary (e.g. removal of garbage, choosing construction material, effluent treatment etc.)
 - 8.) Recommendations for handling methods and practical advice for things to be done after a storm (e.g. adjustment of still living corals as they sometimes have just fallen down)
- A.) Compilation of all information from the workshops/evaluation of the restoration projects were handed out with the “Coral Rehabilitation Manual” by Alasdair Edwards.

WHAT OBJECTIVES WERE NOT MET?

Due to a tight travel plan and limited financial resources we couldn't visit the former islands (Centrara Grand, Konotta) in the south of Maldives, which needed to have a flight included and unfortunately we couldn't find a sponsor for that.

On the local island no guest events were organised as the tourists are staying decentralised (compared to a resort).

12 WHAT PROJECT ACTIVITIES WERE UNDERTAKEN?

We always made check dives of the underwater situation of the islands with photo and video documentation. The evaluation results were summarized into a presentation to be given to the local community and esp. people chosen to be in charge for the project including recommendations and answers to questions.

To 1.-4.) Seminar in seminar room /diving at local reef, photodocumentation

To 1.-4.) Diving at the housereef and coral sampling, presentation of fragmentation methods (on land and underwater), establishing coral nursery and building a small minireef

Seminar in classroom with final recommendations/video material

To 6.) All workshops closed with the handing out of the certifications and group pictures.

To 7.-8.) This information were included in the workshop.

To C.)

We handed out hard copies of the “Coral Rehabilitation Manual” by Alasdair Edwards.

13 WHAT OUTCOMES WERE ACHIEVED DURING THE COURSE OF THE PROJECT?

We achieved that the local people understood the importance of the protection of the coral reefs and the possibilities, which lay in the restoration projects. They all learned and understood the methods and were able to collect and replant coral fragments. The locals were much interested in guided snorkeling tours where we could explain indicators for reef health or problems.

ARE ANY ONGOING?

On two islands (Maafushi and Ukulhas) regularly corals are replanted and monitored. Unfortunately on Rasdhoo there was a change of management of the dive base, which was about to recruit new member of staff. However, we were able to make a quick education with those who were new to the dive center and check out the project site.

The team in Maafushi had continued planting of coral fragments and mini reefs. 9 months later the number of cages had doubled in the lagoon. Also in Ukulhas additional cages were added after the workshop.

DID ANY EXPECTED OUTCOMES FAIL?

The difficult part is to keep the local communities working on the projects. It is important to identify people in charge, preferably from the local dive centers to ensure regular checks on the project sites. In Rasdhoo unfortunately, the number of staff was not enough to ensure regular checkups and continuation of the works, due to the change of management in the responsible dive base.

Depending on the setup and involvement of the councils, the necessary steps to improve conditions on the local islands need to be discussed with the members of the council, which is on some islands a bit difficult being a foreigner. However, during the second trip in 2019 we have teamed up with the Local NGO “Save the Beach” to improve that.

14 DID LOCAL PEOPLE/COMMUNITIES PARTICIPATE IN THE PROJECT? IF SO, HOW MANY AND WILL CONTINUED CONTACT BE MADE?

Yes, with the workshops on the local islands ca. 100 people were educated. We still are in contact with the islands and paid a second visit in December 2019 to review the projects and the coral growth.

15 DID THE GOVERNMENT OF THE HOST COUNTRY RECEIVE INFORMATION ON THE PROJECT'S RESULTS?

The Maldivian government was not informed directly. However, through the close connection to the "Maldives Coral Institute" whose patron is the former president and current speaker of parliament Mohamed Nasheed, government officials are also aware of the project.

16 HOW DID THE RELATIONSHIP WITH OTHER NGOS WORK? WERE THERE ANY ISSUES?

During the second trip we have made a cooperation with the local NGO "Save the Beach" in the persons of its president Hassan Beybe and Thanzy Naeem with whom we are planning future projects. The cooperation is very fruitful, friendly and respectful. We are doing weekly updates per conference call.

17 TOTAL PROJECT BUDGET AND EXPENDITURE (IN EUROS)

16.978 Euro

18 AMOUNT OF MATCHING FUNDS SPENT:

12.978 Euro

19 AMOUNT SPENT FROM EUAC FUNDS:

4000 Euro (see table below and attached excel file)

20 EXPENDITURE BREAKDOWN (IN EUROS)

TRAVEL	3409
SALARIES	
ACCOMMODATION	340
EQUIPMENT	
COMMUNICATION	52
MISCELLANEOUS	250
TOTAL	4051 (51 Euro spent from matching funds)

21 PUBLICATIONS PRODUCED AS A RESULT OF THE PROJECT

Pablo Montoto (2020) German Oceanographic Museum, Zooaquarium de Madrid and Coral Doctors Cluster to Develop a Project on Training of Locals on Reef Rehabilitation in the Maldives. Drum and Croaker, Vol 51, 121-124.
