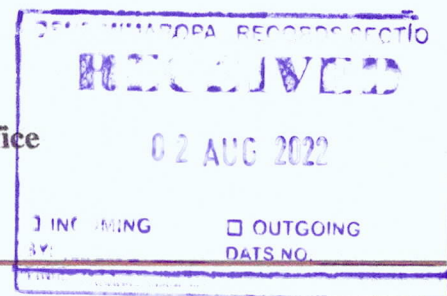




Republic of the Philippines
Department of Environment and Natural Resources
MIMAROPA Region
Provincial Environment and Natural Resources Office
Bgy. Sta. Monica, Puerto Princesa City, Palawan
E-mail: penropalawan@denr.gov.ph
Telfax No. (048) 433-5638



8 July 2022

MEMORANDUM

FOR : The Regional Executive Director
MIMAROPA Region
Roxas, Blvd. Ermita, Manila

THRU : The Assistant Regional Director for Technical Services
MIMAROPA Region

FROM : The Provincial Environment and
Natural Resources Officer

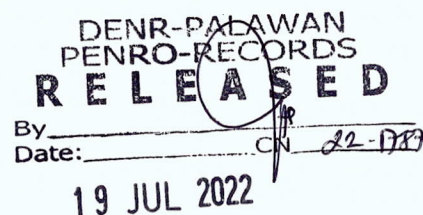
SUBJECT : REPORT ON THE ATTENDED SEMINAR ON UPSCALLING
CORAL RESTORATION IN THE PHILIPPINES USING THE
LARVAL ENHANCEMENT METHOD ON JULY 4, 2022

Furnishing you the copy of the report of PENRO CDS on the attended introductory project seminar for the Upscaling Coral Restoration in the Philippines using the Larval Enhancement Method under the ACIAR Regional Coral Restoration Network on July 4, 2022 at Holiday Suites Function Hall, Puerto Princesa City as per invitation of Dr. Patrick C. Cabaitan and Dr. Vanessa Rodriguez of University of the Philippines – Marine Science Institute dated June 17, 2022.

The attached report includes the participating agencies, presentations of UP-MSI team, key takeaways and recommendation of CDS-SIMO staff.

For your information and record.


FELIZARDO B. CAYATOC





Republic of the Philippines
Department of Environment and Natural Resources
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Telfax No. (048) 433-5638

8 July 2022

MEMORANDUM

FOR : The Provincial Environment and
Natural Resources Officer

THRU : The Chief,
Technical Services Division

The Chief, Conservation and Development Section
Snake Island Management Officer in concurrent capacity

FROM : Genesis Z. Ustares
Marine Biologist II, Snake Island Management Office

Julius F. Landrito
Data Manager, Snake Island Management Office

SUBJECT : **REPORT ON THE ATTENDED SEMINAR ON UPSCALLING
CORAL RESTORATION IN THE PHILIPPINES USING THE
LARVAL ENHANCEMENT METHOD ON JULY 4, 2022**

DENR PENRO
PALAWAN RECORDS
RECEIVED

BY: [Signature]
DATE: 07-12-2022 22:09

Submitted is the report of the undersigned on the attended introductory project seminar for the Upscaling coral restoration in the Philippines using the Larval Enhancement Method under ACIAR Regional Coral Restoration Network on July 4, 2022 at Holiday Suites Function Hall, Puerto Princesa City as per invitation of Dr. Patrick C. Cabaitan and Dr. Vanessa Rodriguez of University of the Philippines – Marine Science Institute dated June 17, 2022.

The meeting was attended by the following agency: Philippine Coast Guard, Palawan State University, Palawan Council for Sustainable Development Staff (PCSDS) and DENR PENRO Palawan.

The team of UP-MSI presented the following:

- ACIAR Project Introduction – presented by Prof. Maria Vanessa B. Rodriguez
- Coral Biology, reproduction and restoration – Mr. Charlon Ligson
- The Larval Enhancement Method – Dr. Dexter dela Cruz
- Coral Restoration in a changing world: Assisted evolution – Prof. Cecilia Conaco
- Governance and political economy of coral restoration – Mr. Joey Gatus
- Future spawning and collaborative activities – Dr. Dexter dela Cruz

The following are the takeaway of the undersigned on the attended seminar:

- The project aims to increase the scale and efficiency of the larval enhancement method, produce more resilient and heat-tolerant coral community, to use of innovative technology in restoring the degraded reef areas, to monitor and evaluate impacts of restoration to reefs and human communities and to create network for coral restoration in the Philippines;
- Port Barton, San Vicente, Palawan is one of the project sites.
- Next year (2023) will start the coral spawning and larval enhancement activity in Palawan and to conduct trainings and seminars to transfer the technique and skills to the collaborators;
- Corals are usually observed that to spawn during summer season between the months of February to July during 6:00 to 10:00 PM, 1 week before and after full moon time;



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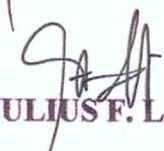
- The MPAs are form of a passive coral restoration that mitigates the sources of disturbances and let the reef recovery by itself;
- The coral gardening is a fragmentation process, getting a portion of a healthy coral to transplant it to desired restoration site. This process will only clone the fragmented corals including the properties and will only decrease the resiliency to climate-change.
- The larval enhancement method enhances the survival rate of the corals in every lifecycle stages and increase the resiliency to climate change.
- Consideration in choosing restoration sites:
 - Formerly good reef community;
 - Have good water turbidity; and
 - No presence of macro-algae succession and sedimentation to aid the larvae to easily settle in the substrates;
- They also conducted in the laboratory the breeding of resilient coral polyps and resilient symbionts forming of a heat-tolerant phenotypes and coral community;
- They also identifying the marine governance gaps and to develop and apply strategies for on-going protection and restored reefs;
- Collaborative activities with the LGUs, NGAs and private sector will include trainings and scientific support for the proper restoration process of coral reef community;
- The UP-MSI team will bring a 3x3 meters inflatable larval rearing next year for the deployment during larval enhancement activity in Port Barton, San Vicente, Palawan;

The following questions were asked during the open discussion portion:


- Prof. Galon of PSU asked if they will provide an MOU for the partnership and implementation of the project. The UP-MSI is currently drafting MOU between academes and other partners including the obligations and responsibilities of each parties;
- The undersigned asked if the team already presented the project to BMB and what will be the role or participation of DENR in this project. The project was already presented to BMB but only thru Zoom and it will be properly discussed thru face-to-face meeting. Further, the DENR will be involved in monitoring and developing of governing policies and strategies in protection and restoration of degraded coral reef community.

The undersigned recommends the participation of SCUBA divers of CDS section of CENRO Roxas for the field work activity – the larval enhancement process, that was schedule next year, since Port Barton, San Vicente is their direct area jurisdiction and for further aids in monitoring activities.

For your information and further instructions.


GENESIS Z. USTARES

JULIUS F. LANDRITO

Noted by:


RHODORA B. UBANI
Chief, CDS/SIMO