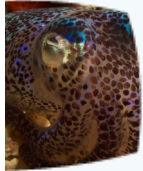


- CCC CARRIED OUT AN ASSESSMENT OF THE REEFS IN THE COASTAL WATERS OF BARANGAY CUASI BETWEEN JUNE AND JULY 2016



- THE REEF IS IN GOOD HEALTH BUT SHOWS SIGNS OF OVERFISHING. IT WOULD BENEFIT FROM THE ESTABLISHMENT OF AN MPA THAT ADDRESSES SIGNS OF OVERFISHING AND OTHER ANTHROPOGENIC IMPACTS THAT PROMOTES SUSTAINABLE AND RESPONSIBLE EXPLOITATION



- ELECTRONIC AND HARD COPIES OF THE FULL TECHNICAL REPORT ARE AVAILABLE FROM OUR PROJECT SCIENTIST

Cuasi Napantao MPA

A REPORT BY
CORAL CAY
CONSERVATION
Expeditions

There is no MPA present within the waters of Barangay Cuasi. The site is characterised by low recorded impacts from sewage and invertebrate harvesting. Located in the Municipality of San Francisco, Cuasi has potential to join Napantao in the development of an economic stream from diving and ecotourism.

The Current Status of the Cuasi Coral Reef

Surveys conducted by CCC found that per 500m³, there were, on average, 89.25 ±8.27 fishes, of which were composed of 14 ±0.07 unique species.

The abundance of commercially important species surveyed was low (10 ±1.59 500m³⁻¹) with the majority between 0-10cm.

The biomass (kg) of Parrotfish, Grouper and Snapper was low across the reef (0.06kg ±0.04 500m³⁻¹).

The size and low abundance of the commercially important

fish is concerning and suggests that exploitation rates are too high.

2 Crown of Thorns Seastars (CoTs) were recorded during the whole survey; indicative of a healthy system.

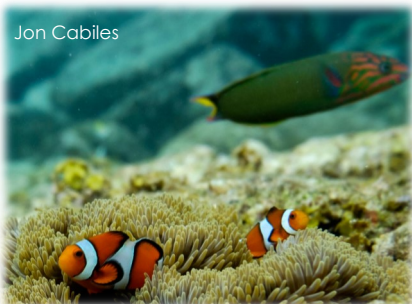
Hard coral was the dominant substrate (37.5% ±3.5 20m⁻¹). The majority of hard coral was composed of competitor corals, such as non-branching *Acropora* sp. of which suggests the coral reef experiences low levels of anthropogenic impacts.



Why Are MPAs Important?

MPAs protect areas of reefs from human impacts. Within an MPA, fish are protected and can grow larger, producing more offspring. This leads to 'overspill', increasing fish numbers outside the MPA. In the Philippines many very successful MPAs have been created including the famous Apo Island MPA. Not only do these well managed MPAs help to enhance fish stocks, they also provide income from tourism and other benefits such as protection of coastal habitats and communities from storms.

Jon Cabiles



CCC's assessment of the Cuasi coral reef

The coral reef across the whole survey site is in good health. However, the amount of small sized commercially important fish is a concern.

Many fish take a long time to grow in size and need to reach a certain length before they become sexually mature. In addition, larger fish produce more offspring. Therefore, fishing large, adult fish, and removing them from the coral reef means that less offspring are produced and the population decreases and cannot recover.

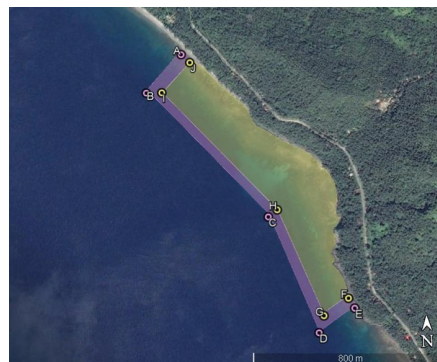
A permanent MPA needs to be established within the Barangay Cuasi's waters. This MPA should follow the spatial design of a core no-take area (NTA) surrounded by 50m buffer zones or marine reserve (MR). This will allow "spill-over" to occur from populations within the NTA, increasing fish size, abundance and diversity within the area.

Over time, with larvae from populations inside the NTA spilling onto other areas of the reef, the abundance and diversity of fauna will increase as well as the percentage composition of hard coral.

With a well-managed and attractive coral reef, the Cuasi MPA will improve possibilities of attracting dive-related tourism as well as commercial potential.

Key Recommendations:

- It is recommended that the local community start consultations to designate a permanent MPA to promote sustainable exploitation.
- Due to the location of transects, and recommended MPA, consultations will also need to be held with the adjacent barangay.
- Throughout the establishment phase, it is key that transparency is practiced and local fisher folk and other stakeholders are involved at discussion every level.



What are coral reefs?

Corals are beautiful organisms of the phylum Cnidaria that are related to jellyfish and anemones. Each hard coral structure that can be seen on coral reefs is made from millions of tiny individual polyps that form a coral colony. Polyps secrete CaCO_3 (calcium carbonate) to create a corallite. It is these corallites that build hard structures and essentially, coral reefs.

Over centuries, coral polyps create huge coral reefs composed of a diverse range of coral structures. Providing habitat for thousands, if not millions, of other species through the highly complex structure.

A healthy coral reef will support an abundance of large sized commercially important species of both fish and invertebrates such as Groupers and Giant Clams. Thus, coral reefs are essential for the livelihoods of local communities as well as governments due to their monetary value with regards to tourism and coastal defence services.

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