

Conservation Benefits of MAC Certification Information Sheet

How Marine Aquarium Council (MAC) Certification creates conservation

MAC Certification implements conservation on the ground in three ways:

- Requiring reef conservation and management for marine ornamental collection areas
- Eliminating destructive collection practices and reducing overfishing
- Contributing to sustainable livelihoods and poverty reduction

Requiring reef conservation and management for marine aquarium fishery areas

MAC Certification is delivering conservation to reefs in the high diversity center of global marine biodiversity. The MAC Standard for Ecosystem and Fishery Management requires each MAC Certified harvest area to develop a Collection Area Management Plan (CAMP). This brings multi-stakeholder resource management to areas where there is little incentive or likelihood of this happening otherwise. The management plans include "no take" areas, with the goal of having an average of 20% of each MAC Certified collection area as "no take". The fishers participate in selecting the reserves - creating a high probability that the reserves will be respected.

Philippines' coral reefs in the collection areas that have been MAC Certified are now being conserved through the implementation of reef management, including fish sanctuaries. As the number of MAC Certified collection areas grows, other reefs in the Philippines, Fiji and elsewhere will have similar management and protection.

Our vision is that MAC Certification will result in world's largest network of managed coral reef areas and reef reserves. This conservation success can be measured in clear and simple terms:

- Increase in number and hectares of marine ornamental collection areas under management.
- Increase in number and hectares of "no take" reef reserves/fish sanctuaries.

Eliminating destructive collection practices and reducing overfishing

MAC Certification results in the reduction in the use of destructive fishing in certified collection areas at many levels. For starters, resident marine aquarium fishers in MAC Certified collection areas participate in a quality control system (i.e. MAC Certification) that does not allow or condone destructive fishing methods, especially cyanide use, and has a multi-layered verification of compliance.

MAC Certified fishers are more clearly linked to, and responsible for, the collection area for which they have been certified to use. As a result, they are much more compelled and empowered to provide surveillance and reporting on illegal fishing activities by other fishers from within their community and on outside fishers that come into "their" area to undertake unauthorized fishing.

The threat of over fishing of aquarium stocks in MAC Certified collection areas is reduced through many aspects of MAC Certification. MAC Certified fishers are required to record their catch species and amounts in log books, which are periodically checked against the purchase records of the MAC Certified buyers to help ensure accuracy. This means there is now known catch levels from known collection areas, providing data for managing harvest levels in the near future. This is coupled with the marine aquarium fishery assessment and monitoring methods created by

Reef Check (MAQTRAC) that provide a scientific basis for improving the stock and area management (such as better design and siting of the "no take" areas). This is backed up by a collect-to-order system. The MAC Certified fishers only collect what has been ordered by a MAC Certified buyer, meaning no collection of reef organisms that do not have a specific market demand.

In the meantime, fishing pressure is also immediately reduced (often significantly) in MAC Certified collection areas due to lower post harvest mortality rate as a result of no chemical use in the capture of marine aquarium organisms and significantly improved handling practices. Compliance with MAC Standards by exporters, importers and retailers further improves survival rates of the catch, additionally reducing pressure. Finally, and very importantly, fishing pressure is reduced in the "no take" sanctuaries, which also "reseed" the harvested portions of the MAC Certified collection area, and through the more active control of unauthorized outside fishing.

As number of MAC Certified fishers and industry operations grows, the success of MAC in reducing threats can be measured by the increase in the:

- number of MAC Certified collection areas and "no take" areas.
- number of MAC Certified marine aquarium fishers.
- number of MAC Certified exporters, importers, and retailers.
- improved survivability/reduced mortality of MAC Certified organisms.

Contributing to sustainable livelihoods and poverty reduction

The continued opportunity for marine aquarium fishers to earn a sustainable living in certified areas is much more likely to be ecologically, socially and politically viable. It is ecologically viable in that the reef is managed for its health and continued productivity and the fishery is based on non-destructive methods. It is socially viable in that the community stakeholders accept an aquarium fishery that is not based on methods that destroy their reefs, encourage illegal fishing practices and are unsafe for divers. It is politically viable in that local or national governments understand that the fishery is being undertaken in a responsible, environmentally sound manner and should be allowed to continue.

With certification, the incentives to participate in this viable use of natural resources is linked to a system that requires reef conservation and management. Reefs that are healthy and productive support the aquarium fishery and other community needs, e.g. harvesting subsistence food fish, contributing to poverty reduction. Communities that depend on the local resource base for their livelihood and subsistence needs are less likely to resort to destruction of the resource base.

Replicating reef conservation due to certification

MAC Certification provides a model that creates reef conservation in many ways and at many levels - and this is already happening:

- Replication among marine aquarium collection sites: Additional collection areas are seeking to develop and implement management plans so that they can become MAC Certified.
- Replication among other reef uses: the marine aquarium fishery management planning process for MAC Certification can be used as a template for developing management of other reef uses.
- Replication among other kinds of commercial reef uses: learning from MAC, industry standards are now under development for the Live Reef Food Fish Trade.

The Big Picture: Financially Sustainable Reef Conservation

Most importantly, MAC Certification creates financially sustainable conservation. The marine aquarium industry's willingness and ability to pay for the value and services of MAC Certification have been confirmed. The MAC Business Plan outlines a 5-year track to financial sustainability

for MAC and MAC Certification. A significant portion of the marine aquarium industry will be operating according to the MAC Standards within the next five years, achieving the conservation benefits outlined above. Industry support for MAC will supplant the donor support needed over this transition period, resulting in financially sustainable certification - and reef conservation.

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