

**PNG SEASmart PROGRAM**

**FEBRUARY 09**

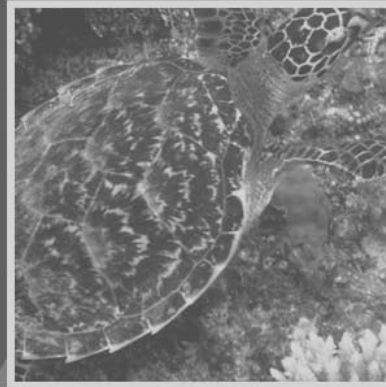
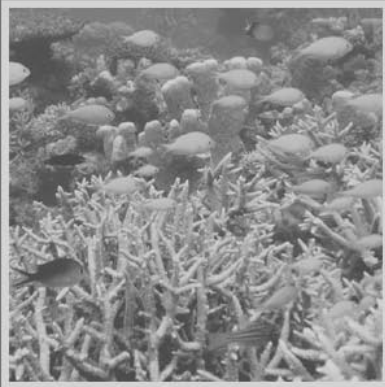
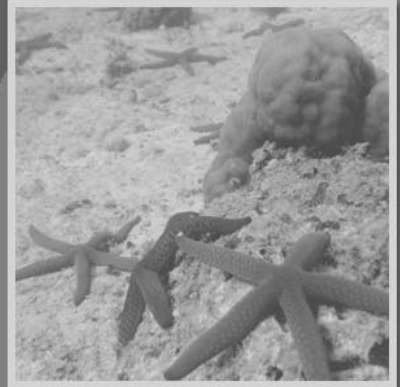
# **Resource Assessment & Management Survey Manual**



PNG NFA

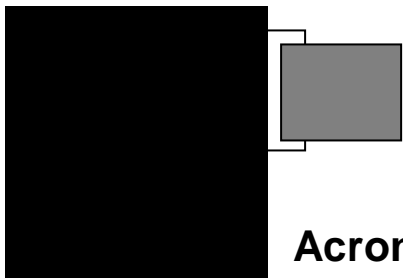


EcoEZ Inc.



Resource Assessment & Management Survey Manual  
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## Acronyms .....

RAM	Resource Assessment & Management
NFA	National Fisheries Authority
MAQTRAC	Marine Aquarium Trade Coral Reef Monitoring Protocol
FMA	Fishery Management Area
FMAP	Fishery Management Area Plan
GCRMN	Global Coral Reef Monitoring Network
GPS	Global Positioning System
GIS	Geographic Information System

**Background .....**

Papua New Guinea reefs are under pressure from different anthropogenic factors including pollutions, over fishing, sedimentations, and other damaging activities but little is known about the status of the PNG coral reefs. There is little to no knowledge of the health of thousands of kilometers in PNG reefs. The PNG National Authority (NFA) and ECOEZ are currently working around the country aim to achieve knowledge on how to manage the reefs and the same time the fishermen can have a livelihood like marine aquarium fishing.

This manual was born out of ECOEZ with the aim to continue furthering knowledge about under-researched marine areas for opening marine aquarium fishing around PNG with developing scientific methods to monitor and manage coral reef fisheries for fish and invertebrates and to determine the level of catch could be sustainable. Not only this, it's included to monitor the marine foods and Sea Cucumber (Beche de mer) stocks. However, like any other fisheries in the developing countries, the challenges will lie in conceptualizing the scientific framework and the reasonable implementation for such system with the view of long-term sustainability.

The major suppliers of wild-caught marine aquarium fishes and invertebrates are the Philippines (Albaladejo and Corpuz, 1981,1984; Albaladejo et al., 1984), Hawaii Taylor, 1974; Katekaru, 1978; van Poolen and Obara, 1984; Anon., 1988), Caribbean Sea (including Florida), Indonesia (Kvalvagnaes, 1980), Mexico, Red Sea, Sri Lanka (Senanayake, 1980; Wood, 1985), Mauritius, Kenya (Samoilys, 1988a), Maldives, Seychelles, Taiwan and the Pacific Region (Randall, 1987; Lewis, 1988). In the early 1980's, the import value of marine fish and invertebrates for the aquarium trade was estimated to be between US\$24 to 40 million annually (Wood 1985). But, current estimates import value of marine aquariums between US\$200 and 300 million annually (Chapman et al. 1997; Larking and Degner 2001).

## Area Selection and Public Awareness .....

Before a selected area can begin the process towards certification and fishing, a comprehensive analysis is undertaken to ensure that it meets a set of area selection criteria. The full RAM Survey is undertaken in selected areas recommended by National Fisheries Authority (NFA) after the scoping and rapid resource assessment. An area is normally selected if it has met the following criteria:

- Interest of local resident fishermen; the indicator will be known after a public awareness before the survey.
- Good species mix (commercially viable) and volume in order to make the trade feasible;
- “Buy-in” of local level government units and fishermen; and
- Potential of fishers to adopt a certifiable way (use of nondestructive methods such as barrier net fishing) of tropical fish fishing.

### **Other relevant information that fall under the last criterion includes:**

- Operational issues and market linkages;
- Stakeholders and other resource users; and
- Clan/ownerships, and legal issues.

It is necessary to secure written permits provided by NFA prior to surveys. The team should present themselves in the community/village and makes awareness before the surveys.

Gathering of secondary data and subsequent field scoping activities (and community workshops when deemed necessary) should provide information on the following:

- Area’s fisheries (fishing practices/methods, mean livelihood and, fishing sites, seasons);
- Locations of habitats; and boundaries of the owned reef by clan.

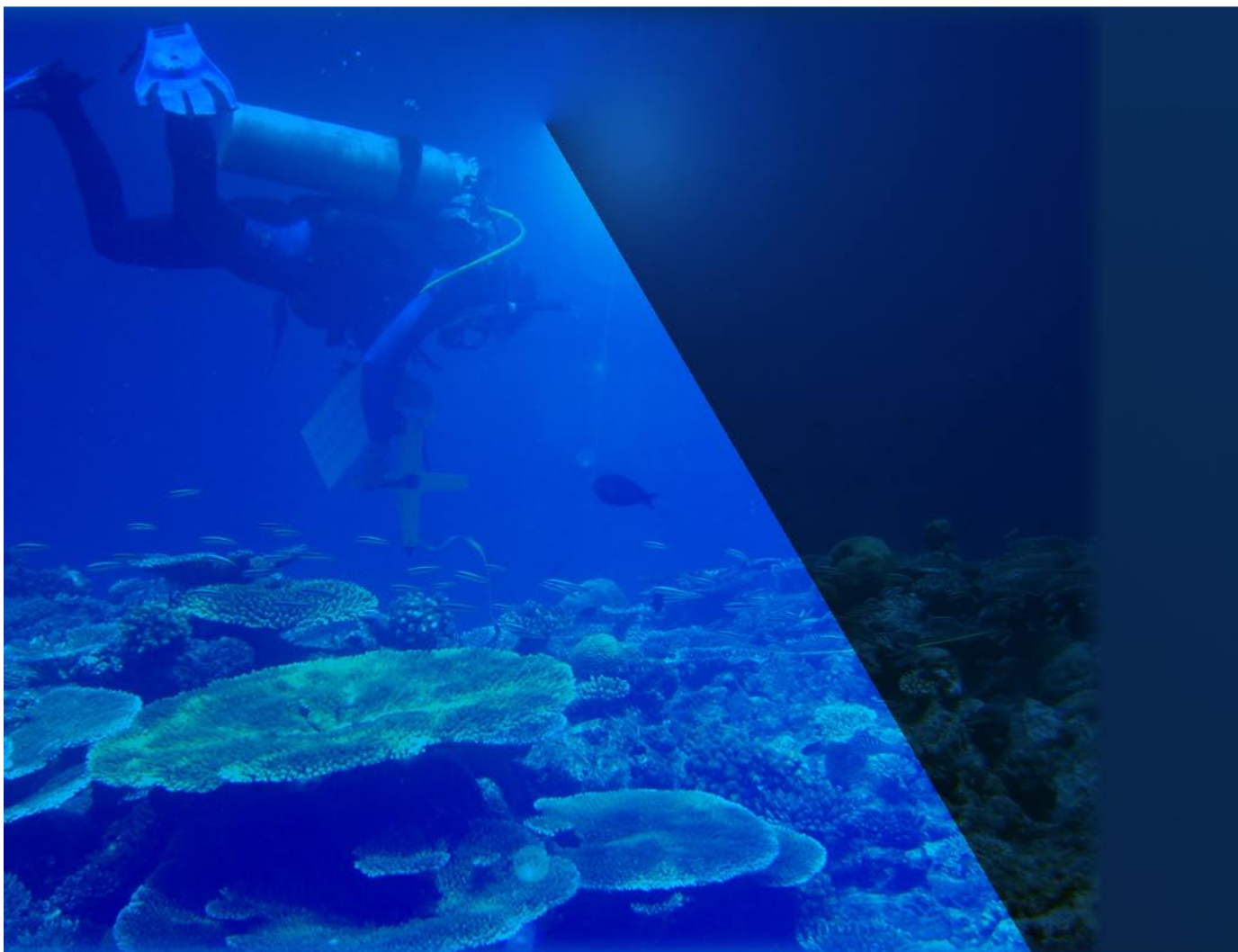
- Characteristics of local fishers (number of fishermen, holidays and days of no fishing, profiles, events and history of the village), etc.

Information may be collected in interviews with Community/Village leaders, or owners of the reefs, focus group discussions and actual field observations. Working with local fishermen will help begin to build trust and to increase the level of knowledge about fishing practices, fishing sites, inside laws and regulations and resource management perspective of the fishers and perceived needs. Data analysis and interpretation must be done carefully and in the context of the overall fisheries in the area and then presented soon back to the area. The output from the survey will form the basis for the local Area Profile and Aquarium Fisheries Management Report to be submitted to the MAP (Management Area Plan) Committee and NFA representatives.

### **Rapid Resource Assessment (RRA)**

After the NFA (National Fisheries Authority) or Provincial Fisheries suggest and give a list of village/s to the Country/Programme Director of the company, the initial desktop analysis should be performed. All EcoEZ Executive Committees and Management Committees should attend the desktop analysis. After the area/s were analyzed and pass with the Site Selection Criteria (SSC), a RRA is carried out. Basically the minimum dive sites to be produced should not be lower in 20-dive sample in the project area

*Note: If you want to have the complete copy of the RAM manual, please feel free to contact us. Thank you.*



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