

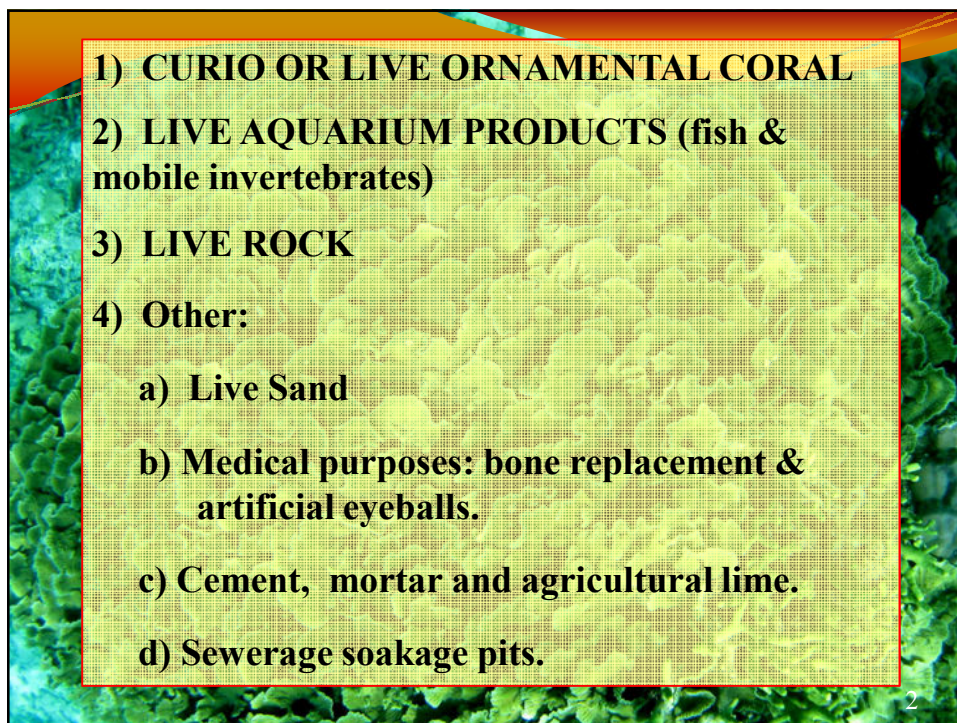


**National Management Plan
for the
Aquarium Trade in Fiji**

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for the Marine Ornamental Trade
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1) CURIO OR LIVE ORNAMENTAL CORAL
2) LIVE AQUARIUM PRODUCTS (fish & mobile invertebrates)
3) LIVE ROCK
4) Other:

- a) Live Sand
- b) Medical purposes: bone replacement & artificial eyeballs.
- c) Cement, mortar and agricultural lime.
- d) Sewerage soakage pits.

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Elements of the Fiji Management Plan:

- **Dept. of Environment**

- CITES secretariat: Scientific Council & Management Authority

Dept. of Fisheries

- Management decisions
- Permitting : CITES and Export permits
- Export database
 - Monitor exports
- Non-detriment Finding Committee
 - Establish criteria
- Secretariat for the Fiji Marine Aquarium Council (FMAC)
 - Communication and clarification

Animal Health & Quarantine - OIE permit issue

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Custodian /Trader partnership

**Resource + Entrepreneurship =
Employment & Village and National benefits =
Profitable Business**

A mutually agreeable business relationship is entered into. -

A partnership between the custodian who has the fishing rights and the aquarium trader who has the knowledge and finance to conduct the trade.

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Institute of Marine Resources – Consultancy:

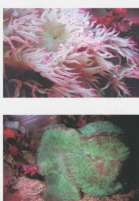
- Resource assessment
- Non-detriment Finding (NDF) for live coral collection
- Environmental Impact Assessment & NDF for live rock

Marine Aquarium Council (MAC) certification programme


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Resource and collection area management plans

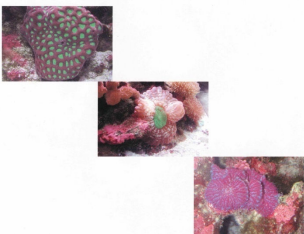
Environmental Impact Assessment and Collection Area Management Plan Information for the Collection of Hard Coral for Aquarium Fish, Fiji



Report by
Edward R. Lovell
Biological Consultants,
Fiji July 2003



Creation of an Aquarium Fisheries Management Plan (AFMP) for live rock, corals and other benthos in the Walt Smith International collection areas



Report by
Edward R. Lovell
Biological Consultants, Fiji
August 2001

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Aquarium Trade Organizations:

Marine Ornamental Traders Association (MOTA)

- Organization of traders
- Discuss problems
- Set policy
- Proactive approach to the fishery

Fiji Marine Aquarium Council (FMAC)

Fisheries Dept. (secretariat) hosted association of all parties interested in the management of the aquarium fishery.



What is the Fiji's Aquarium Fishery Management Plan ?

Absence of a detailed legislative base

Management has evolved through setting of policy & guidelines within the broader Fisheries Act.

Live fish have been collected since 1983, live rock late '80's, and live corals 1995. Coral collection is not regulated collected domestically.

The curio trade was active through the late 1980's to late 1990's, but is now banned for export with the exception of an unresolved NGO's activity.

This approach suits a fishery which is developing within a global market but functions within a national and community framework.

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Aquarium Trade Guidelines

In accordance with the *Fisheries Act* and the *Endangered Protected Species Act (EPS Act)*,
To promote a sustainable fisheries consistent with a diverse marine ecosystem ensuring resource utilization is:

- ▶ environmentally sensitive for future sustainability of stocks
- ▶ protection of endangered species
- ▶ to achieve a balance between developing profitable reef based industries,
- ▶ maintaining optimum reef health &
- ▶ limiting environmental impacts.

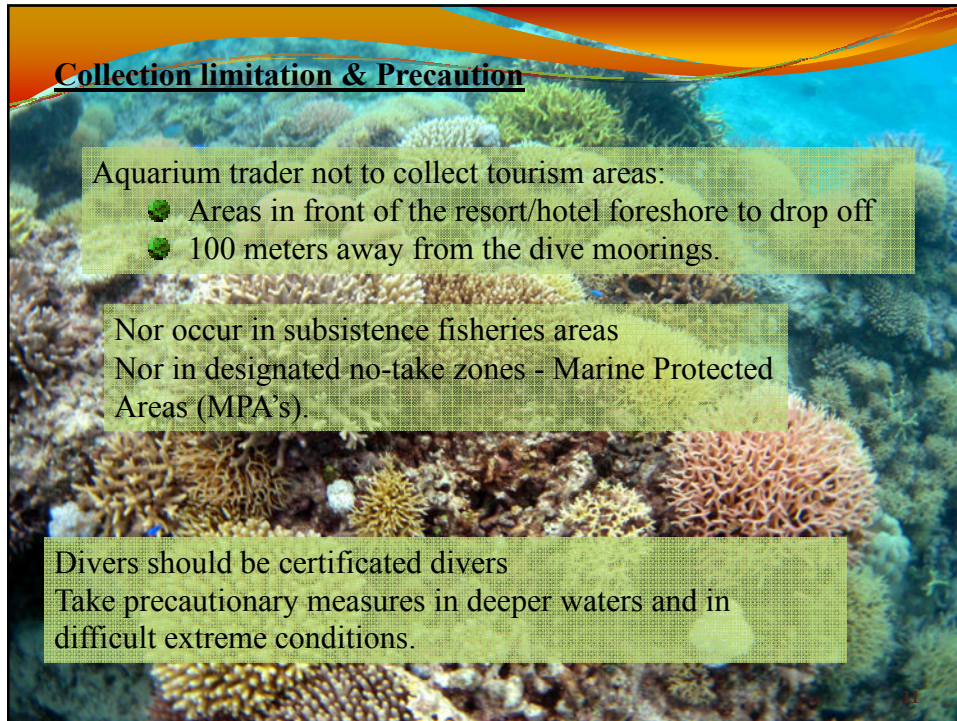
General Management

Moratorium on the number of companies: 5 licensed to operate
Licenses are required from the Fisheries Dept.

Provincial Administration endorse to the Commissioner of the division.

The Commissioner facilitates the decision of the chief to Department of Fisheries. Fisheries Officer issue a Fisheries License to collect from the Qoliqoli.

One Area One Operator as the presence of multiple users competing for the same resource can be detrimental to the survival of species.



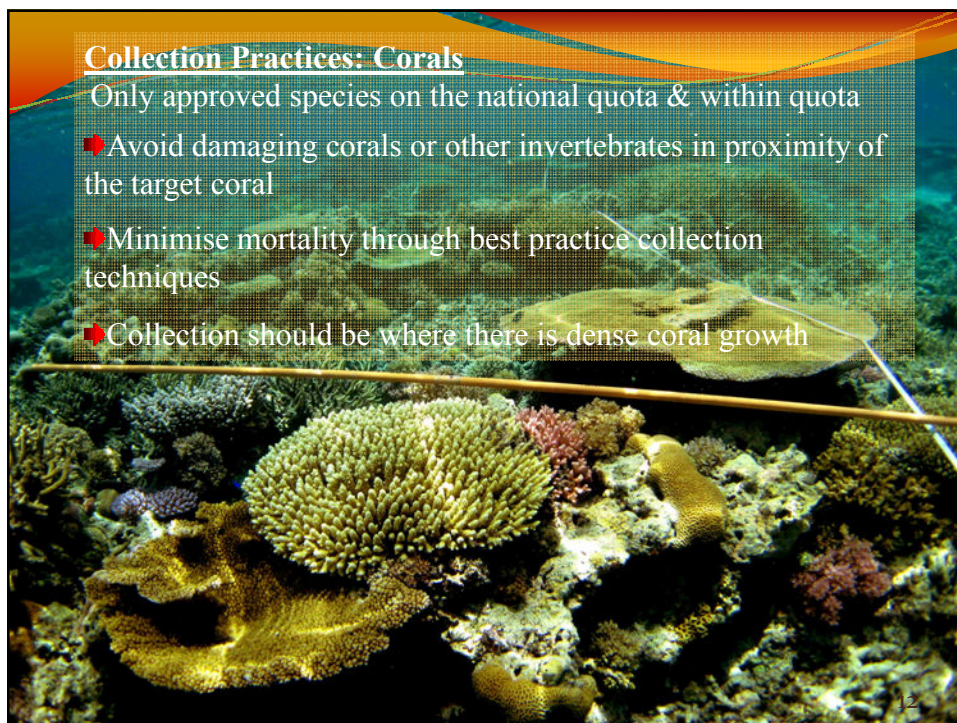
Collection limitation & Precaution

Aquarium trader not to collect tourism areas:

- Areas in front of the resort/hotel foreshore to drop off
- 100 meters away from the dive moorings.

Nor occur in subsistence fisheries areas
Nor in designated no-take zones - Marine Protected Areas (MPA's).

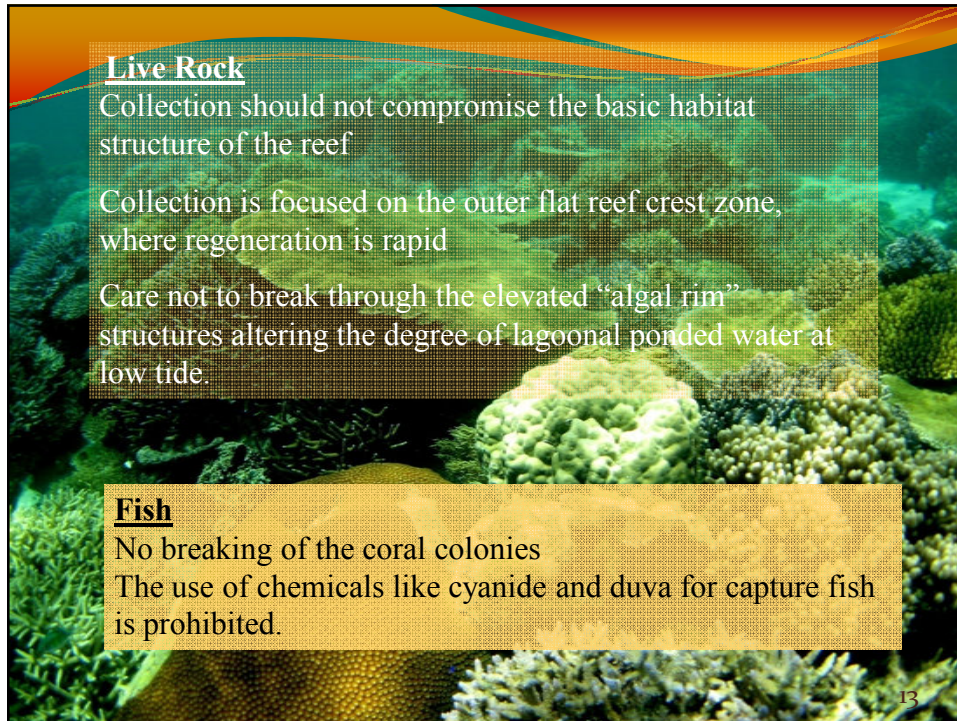
Divers should be certificated divers
Take precautionary measures in deeper waters and in difficult extreme conditions.



Collection Practices: Corals

Only approved species on the national quota & within quota

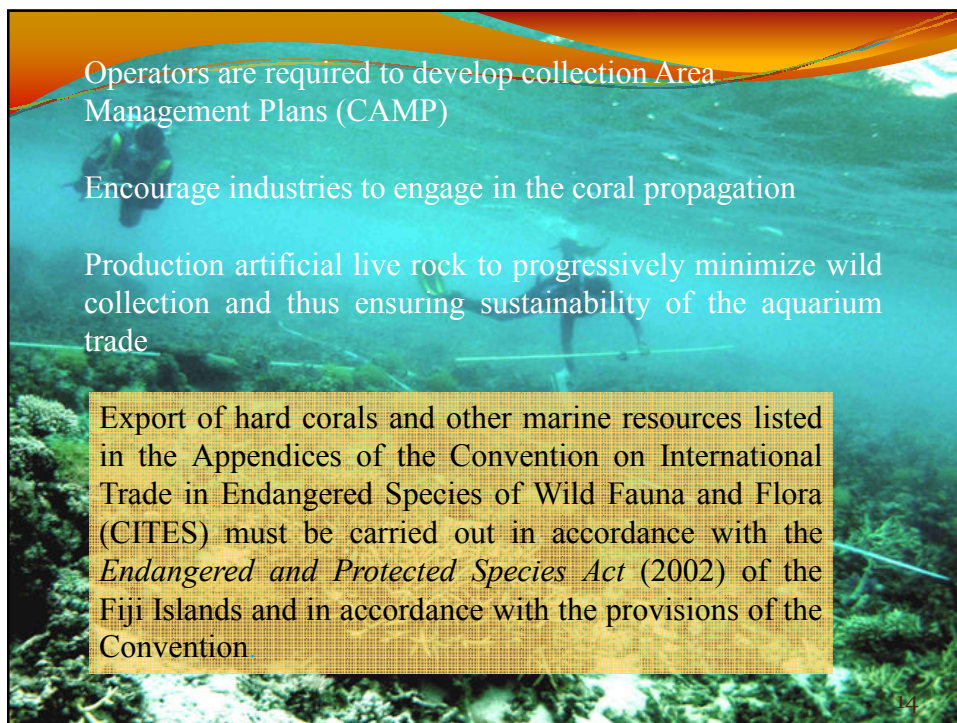
- Avoid damaging corals or other invertebrates in proximity of the target coral
- Minimise mortality through best practice collection techniques
- Collection should be where there is dense coral growth



Live Rock
 Collection should not compromise the basic habitat structure of the reef
 Collection is focused on the outer flat reef crest zone, where regeneration is rapid
 Care not to break through the elevated “algal rim” structures altering the degree of lagoonal ponded water at low tide.

Fish
 No breaking of the coral colonies
 The use of chemicals like cyanide and duva for capture fish is prohibited.

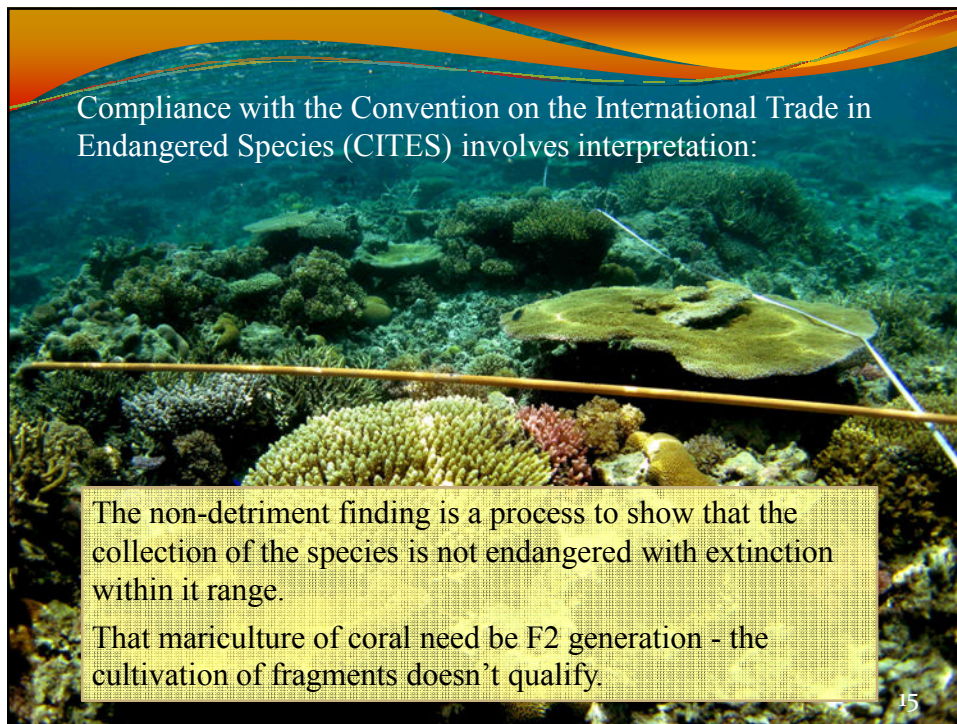
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Operators are required to develop collection Area Management Plans (CAMP)
 Encourage industries to engage in the coral propagation
 Production artificial live rock to progressively minimize wild collection and thus ensuring sustainability of the aquarium trade

Export of hard corals and other marine resources listed in the Appendices of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) must be carried out in accordance with the *Endangered and Protected Species Act* (2002) of the Fiji Islands and in accordance with the provisions of the Convention.

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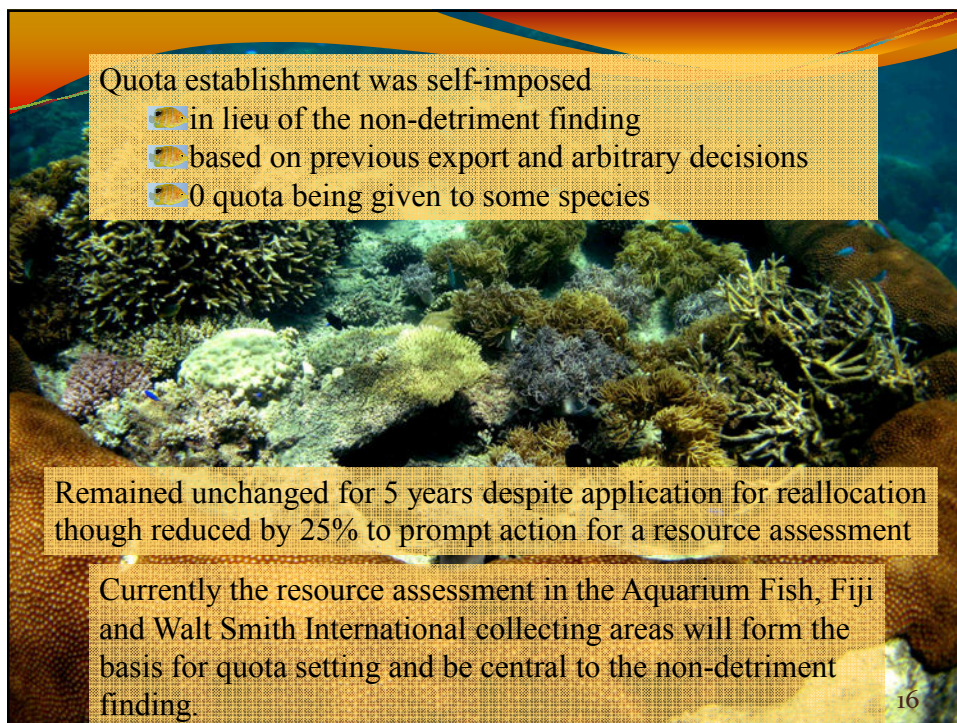


Compliance with the Convention on the International Trade in Endangered Species (CITES) involves interpretation:

The non-detriment finding is a process to show that the collection of the species is not endangered with extinction within its range.

That mariculture of coral needs to be F2 generation - the cultivation of fragments doesn't qualify.

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Quota establishment was self-imposed

- in lieu of the non-detriment finding
- based on previous export and arbitrary decisions
- 0 quota being given to some species

Remained unchanged for 5 years despite application for reallocation though reduced by 25% to prompt action for a resource assessment

Currently the resource assessment in the Aquarium Fish, Fiji and Walt Smith International collecting areas will form the basis for quota setting and be central to the non-detriment finding.

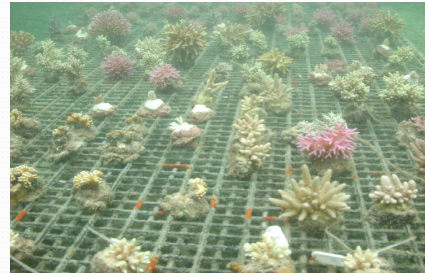
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Coral Restoration

Farm aquaculture corals



Aquaculture rocks



