

► The Management Arrangement

- There is a nationwide moratorium on the issuance of licences for LRFFT imposed in 1998.
- The National Fisheries Board approved a trial project in Kavieng to obtain the much-needed information to formulate and develop a "LRFFT Management Plan."
- At present, the LRFFT in PNG is managed under a national management plan known as "The National Live Reef Food Fish Management Plan".

Very Important Reminders

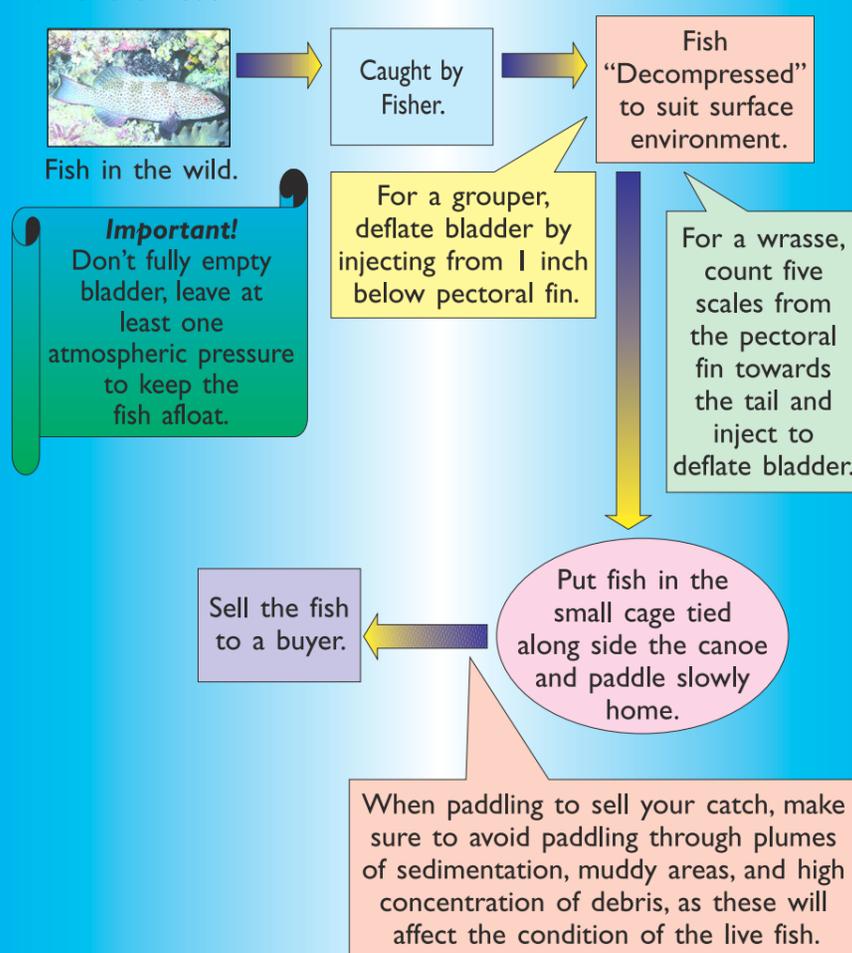
- * Fishing for live fish is restricted to handlining only.
- * Fishing for LRFFT is restricted to local fishers catching and selling fish to the operator.
- * The use of sodium cyanide including derris roots for capturing fish is illegal.
- * Use of hookah gear, SCUBA and traps are prohibited in the LRFFT.
- * Fishing on spawning aggregation sites for the purpose of selling live fish is prohibited.

Size Limits for Exports

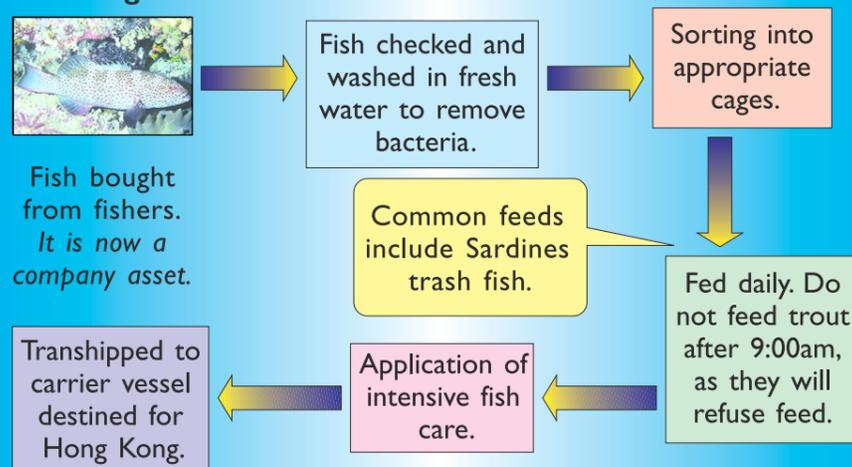
Common Name	Scientific Name	Export Size Limit	Common Name	Scientific Name	Export Size Limit
Coral Cod	<i>Cephalopholis miniata</i>	no minimum size	Red bass	<i>Lutjanus bohar</i>	no minimum size
Tomato Rockcod	<i>Cephalopholis sonnerati</i>	no minimum size	Stripery sea perch	<i>Lutjanus carponotatus</i>	25cm
Hump Head Maori Wrasse	<i>Chelinus undulatus</i>	65cm	Saddle tailed sea perch	<i>Lutjanus malabaricus</i>	40cm
Black spot tusk fish	<i>Choerodon schoenlenii</i>	30cm	Moses perch	<i>Lutjanus russelli</i>	25cm
Barramundi cod	<i>Cromileptis altivelis</i>	40cm	Red emperor	<i>Lutjanus sebae</i>	55cm
Flowery cod	<i>Ephinephelus fuscoguttatus</i>	55cm	Maori Perch	<i>Lutjanus rivulatus</i>	55cm
Trout cod	<i>Ephinephelus maculatus</i>	no minimum size	Squaretail coral trout	<i>Plectropomus areolatus</i>	36cm
Camouflage grouper	<i>Ephinephelus polyphekadion</i>	37cm	Chinese footballed trout	<i>Plectropomus laevis</i>	60cm
Potato cod	<i>Ephinephelus tukula</i>	65cm (>120cm)	Leopard coral trout	<i>Plectropomus leopardus</i>	36cm
Maori grouper (Maori cod)	<i>Ephinephelus undulostriatus</i>	45cm	Bar checked coral trout	<i>Plectropomus maculates</i>	36cm
Red throat emperor	<i>Lethrinus miniatus</i>	35cm	High fin coral trout	<i>Plectropomus oligocantus</i>	36cm
Managrove jack	<i>Lutjanus argentimaculatus</i>	40cm	Coronation trout	<i>Variola louti</i>	no minimum size

Process to care for a Live Reef Food Fish

A. Fishers Level



B. Caring for Live Fish in Ponds



What is the Fisheries Manager - Inshore's plan for LRFFT?

- Assess the available stock in the management areas.
- Provide awareness materials to educate the fisherman.
- Provide training on "live fish handling".

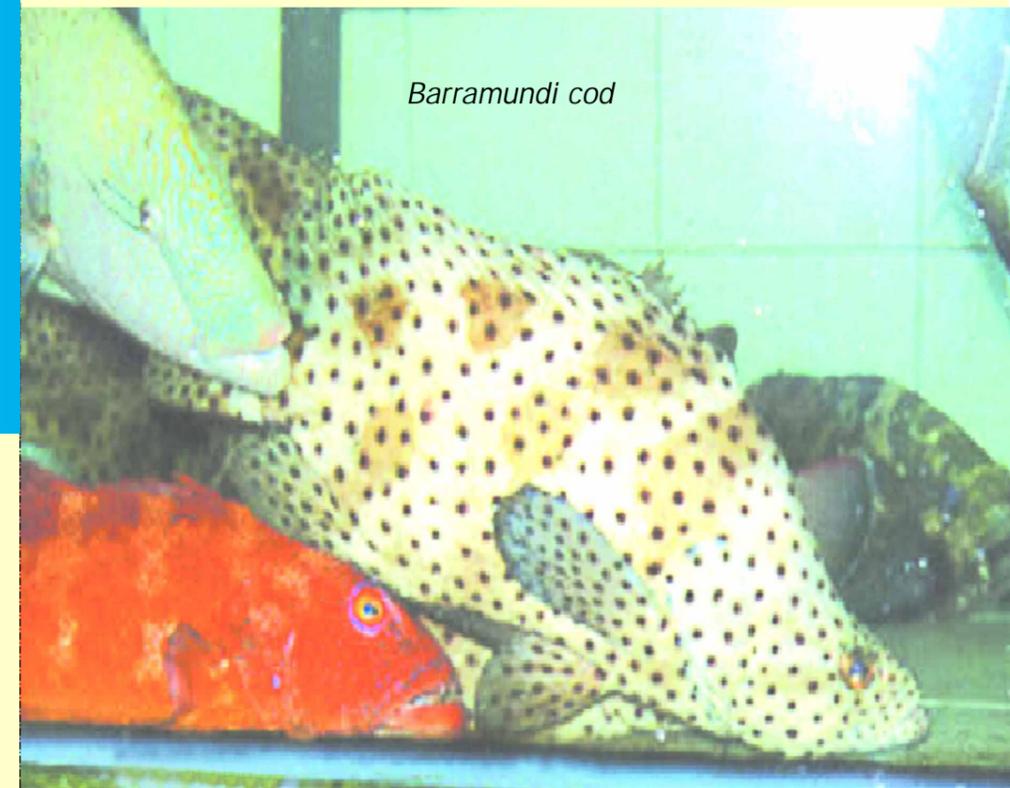


NATIONAL FISHERIES AUTHORITY

Live Reef Food Fish Trade in Papua New Guinea

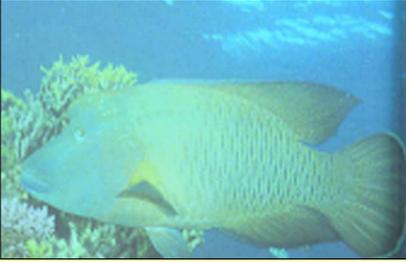
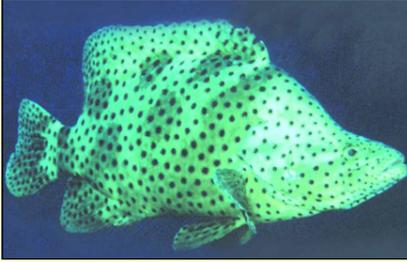
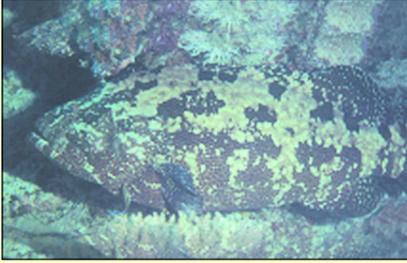
► What is Live Reef Food Fish Trade (LRFFT)?

LRFFT is the increasing trade for live groupers, wrasses, and some snappers that caters for rich consumers in Hong Kong and Southern China. These consumers prefer the beauty of live fish from tanks while dining in very expensive hotels because of the perceived status and prestige.



► **What are the common species targeted for LRFT?**

Species targeted for LRFT may differ from region to region depending on the distance and demand by the consumers.

COMMON NAMES	SCIENTIFIC NAMES	COMMON NAMES	SCIENTIFIC NAMES
Maori wrasse	<i>Chelinus undulatus</i>	Barramundi cod	<i>Cromileptus altivelis</i>
			
Blackmarbled coral grouper	<i>Plectropomus laevis</i>	Brownmarbled grouper	<i>Epinephelus polyphekadion</i>
			
Camouflage grouper	<i>Epinephelus polyphekadion</i>	Highfin coral grouper	<i>Plectropomus oligacanthus</i>
			
Giant grouper	<i>Epinephelus lanceolatus</i>	Squaretail coral grouper	<i>Plectropomus aerolatus</i>
			

► **Where do they live?**

Most groupers, cods and trouts are usually found in coral-rich areas of lagoon and outer reefs. They are more abundant around islands and atolls. Some species like squaretail coral grouper, brown marbled cod, camouflage grouper are usually found in small schools. These fishes usually aggregate on a certain part of the reef to spawn at a certain period of time. Groupers during spawning period may become vulnerable to over-exploitation by fishers. Groupers feed mainly on crustaceans (portunid crabs), fishes, and sometimes cephalopods and gastropods.

The Maori Wrasse (also known by many as humphead wrasse or Napoleon wrasse) inhabits steep outer reef slopes, channel slopes, and lagoon reefs. Usually solitary but may occur in pairs.

Juveniles usually inhabit coral-rich areas of lagoon reefs especially where staghorn acropora or corals are seen to be abundant. Adults usually rove across the reefs, by day and rest in reef caves and under coral ledges at night. They feed on mollusc, fishes, sea urchins, crustaceans, and other invertebrates.

Maori wrasse takes five (5) years to become adult. At this age, a Maori wrasse becomes sexually matured or once it reaches 50 cm (TL). Maori wrasse grows to more than 2 meters, and lives at least 30 years.

Barramundi (humpback grouper) cod inhabits lagoon and seaward reefs and are typically found in silty areas, coral reefs and tide pools. Juveniles are commonly caught for aquarium trade.

► **What is the fuss?**

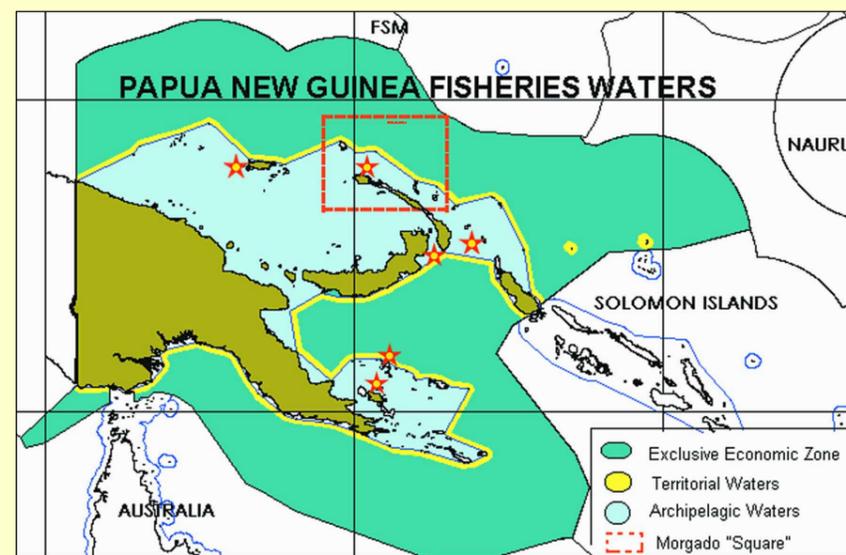
Most live fish target species are slow growing, have low fecundity, have long life span and usually aggregate during spawning seasons making them vulnerable to overexploitation. However, if managed properly, this relatively small-volume, high value fishery could contribute to sustainable economic development to the coastal communities and the country as a whole. Therefore, this fishery demands careful consideration in management.

► **What is the history of LRFT in PNG?**

LRFT was introduced in PNG in 1992. The first operation was based on Hermit Island in Manus Province then spread to other provinces.

The fishery presents potential for economic benefits to the coastal communities, but if not managed properly, it can also cause negative environmental, economic, biological, and social impacts.

Map Showing Past Operations (★) of LRFT in PNG



► **Potential problems are:**

- Continually moving from one area to another, leaving those who live near the reefs without enough fish for themselves or the community. This fishing pattern is commonly known as “boom and bust” syndrome.
- Foreign fishers usually use poison like sodium cyanide to stun and capture fish. The poison has severe negative impacts on the coral reefs, other fish, and surrounding environment.
- Targeting of juveniles and spawning sites.
- Introduction of overly efficient fishing practises destructive to the resource, surrounding environment and traditional fishing methods.
- May lead to unsustainable exploitation if the fishery is not properly managed.
- High by-catch return.
- Social conflicts (e.g. Reef ownership right, fishing right, royalty distribution etc..).

► **Potential benefits are:**

- A source of income for governments from license fees.
- An opportunity to generate income for the coastal population.
- Establishing markets for fishers especially those in the remote coastal areas.
- Providing job opportunities for youths in the remote areas.

