Giant clam farming in the Pacific

Ocean based nurseries

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H.hippopus
T. squamosa
T. maxima
T. gigas
T. derasa
T. maxima

Overview

- Global market is < 200 000 pcs per year
- 50% of *T.maxima*
- Export size: > 4cm
- Growth: 1 to 3 years according to species
- Export grades: Ultra>colored>gold
- Main markets USA, EU, Asia, Australia.
- Main exporters (wild and cultured): Tonga, Marshalls, Palau, Coco Keelings, Vietnam, Vanuatu

Kiribati
(Tarawa, Abaiang)

- Cultured species: *Tridacna maxima*
- One small scale private hatchery (Atoll Beauties) aiming at exporting **10 000 pcs per year**
- Lagoon grow out in sea cages and long lines.

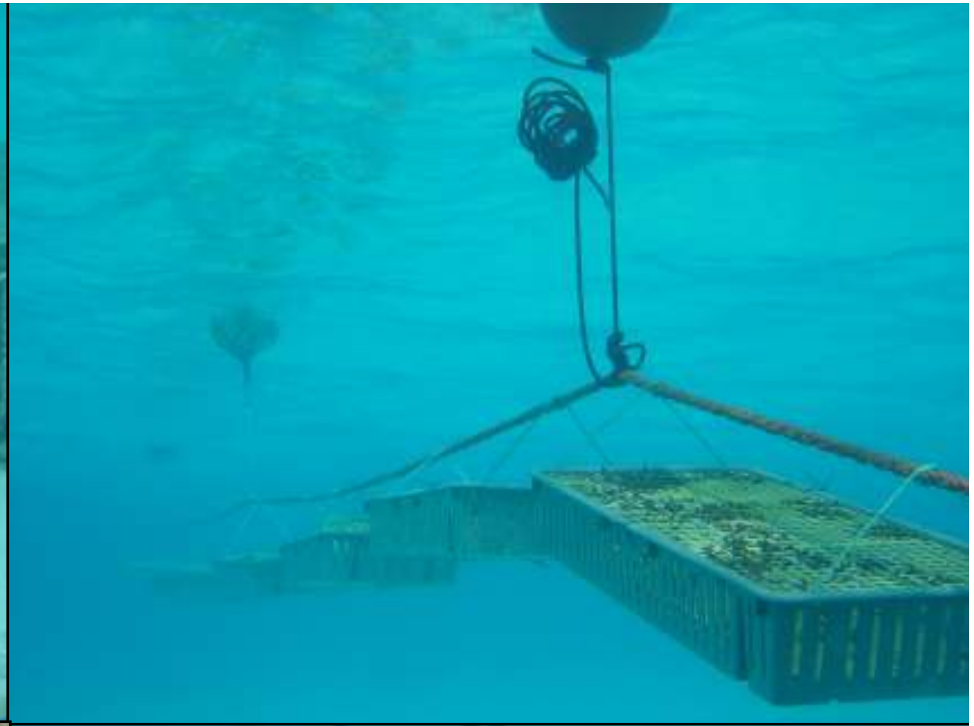
Marshall islands

(Majuro, Likiep, Arno, Mili)

- Cultured species: *T.maxima, T.crocea, T.derasa, T.squamosa, T.gigas, H.hippopus*
- 2 government hatcheries and a large private hatchery (MIMF) that exports all production from RMI at about **15 000 pcs a year**
- Has both land and sea cages grow out.

Cook Islands
(Aitutaki)

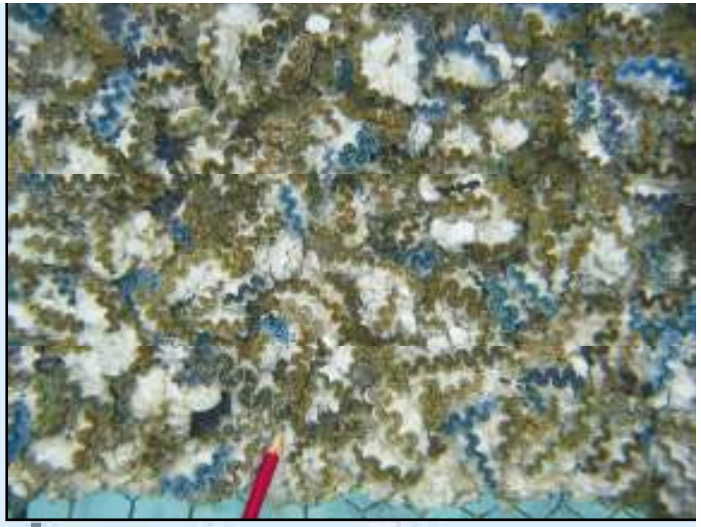
- Cultured species: *T.maxima, T.derasa, T.gigas,*
- 1 government hatchery (AMRC) and several small scale farmers (**5** to **10 000 pcs** per year)
- Cage culture and more recently long line culture.



Solomon Islands
(Western Province)

- Cultured species: *T.derasa*
- A hatchery is operated by the WorldFish Center, several small scale farmers doing grow out. It is expected that **30 000 pcs** will be marketable in the near future
- Cage culture mostly

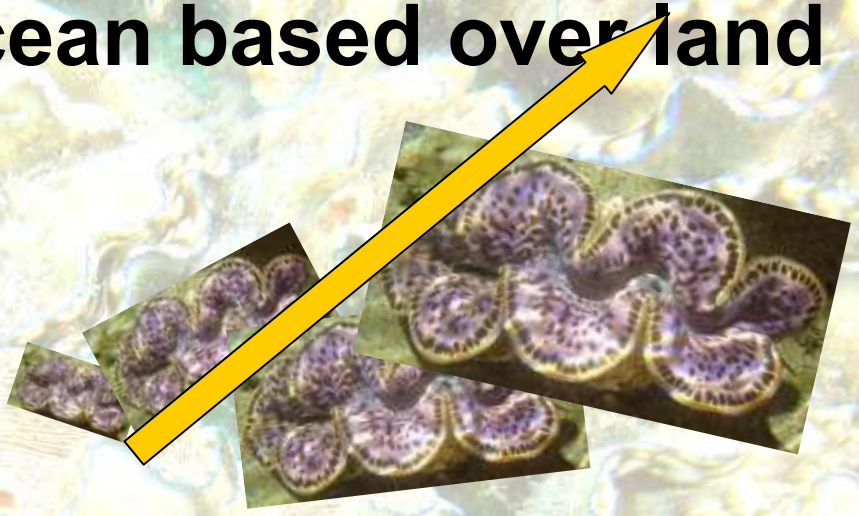
French Polynesia
(Tatakoto, Fangatau')



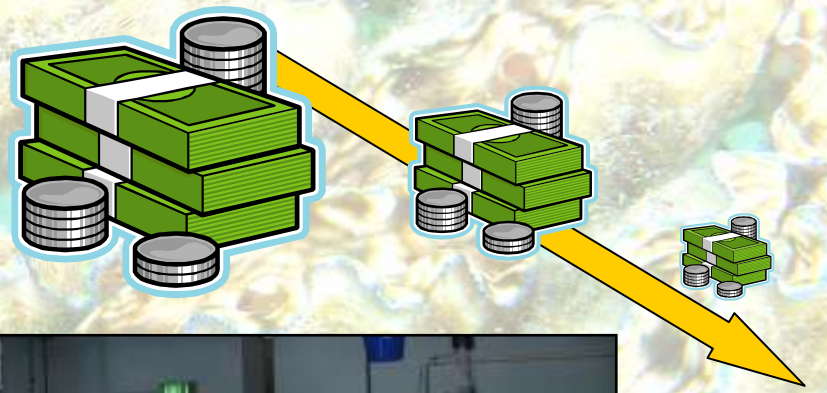
- Cultured species: *T.maxima*
- No hatchery as it relies on natural spat collection (At least 1 private company is setting up) Expected production is **at least 15-20 000** pcs a year.
- Sea cages and floating cages culture mostly

Advantages of ocean based over land based nurseries

- Growth rates are higher in the ocean



- Production costs and labor are lower in the ocean



- Technological input is lower in the ocean

Disadvantages of cage culture over land based nurseries

→Less control over the production

- High fouling and predation often resulting in lowered survival

- Subject to storms and adverse environmental conditions

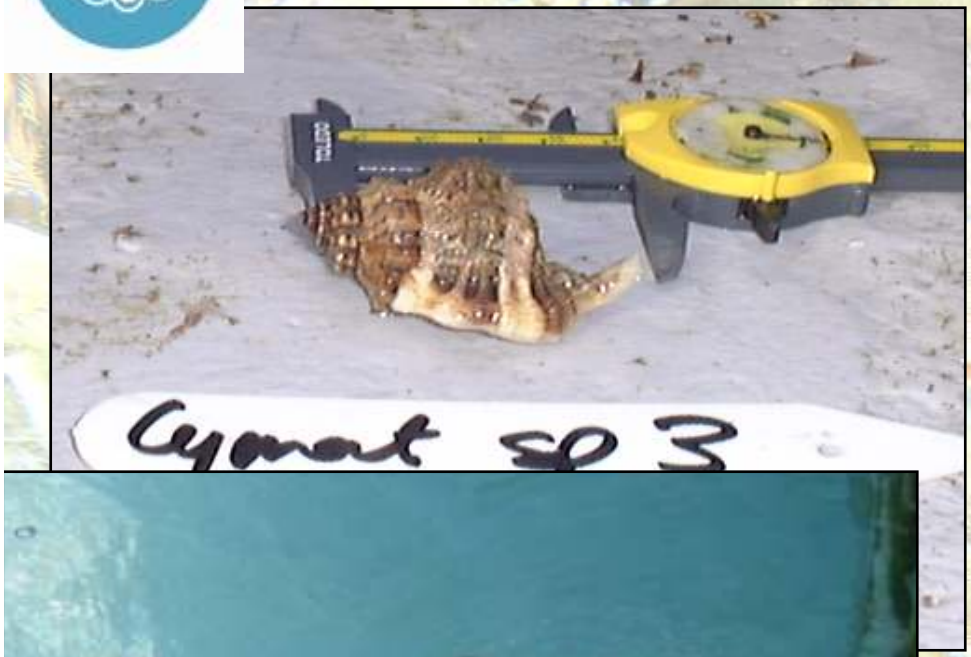

How to overcome the problems
occurring during
ocean culture of clams?

Optimise the growth rates !

→By selecting a good site

- Appropriate depth (<10m)
- Moderate to strong currents
- Keep away from fresh water!
- Keep away from predators

Predators: who are

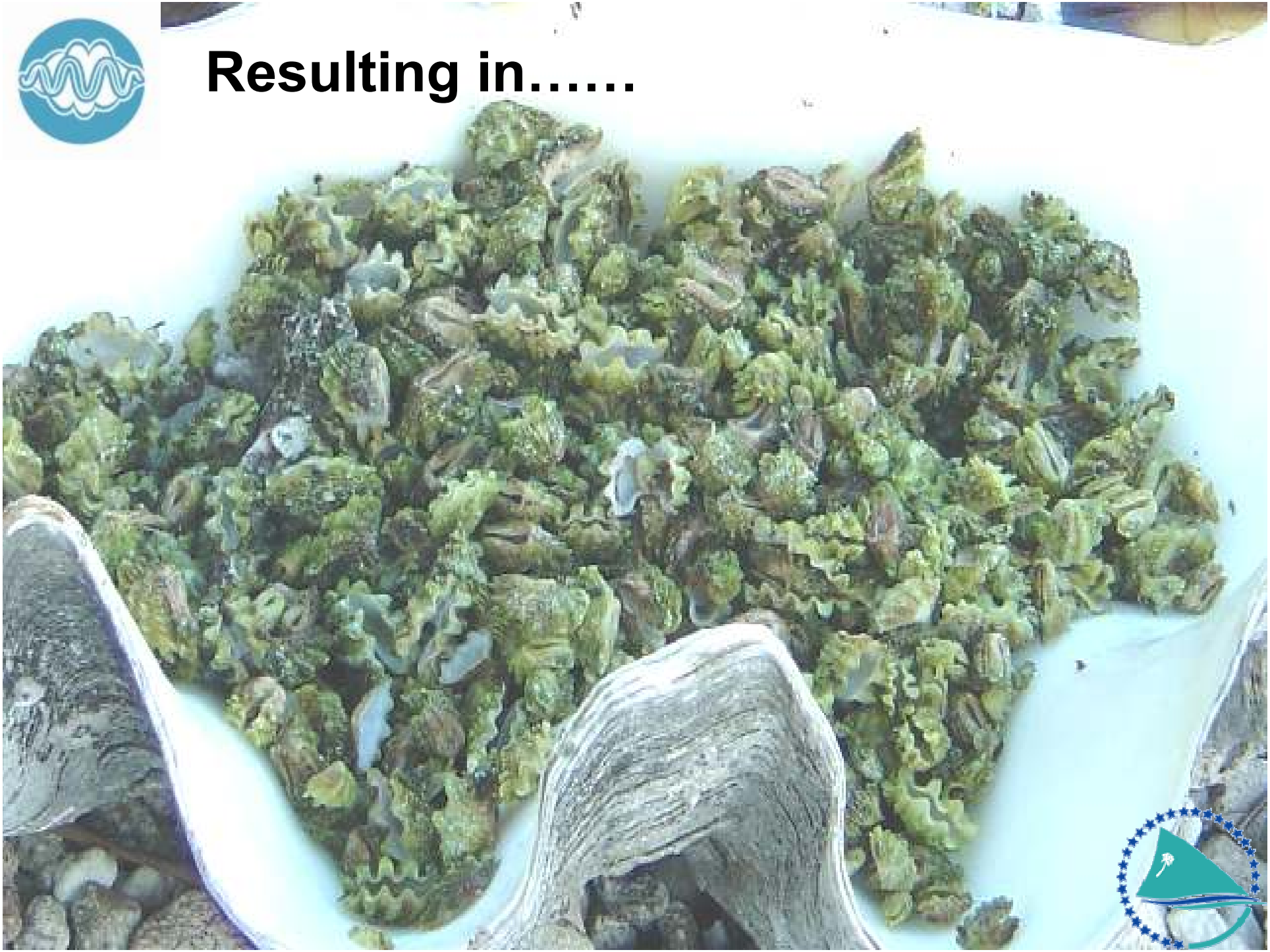


Large fish, turtles, rays

Pyramidellid snails

Humans!!!

Resulting in……



How to avoid or get rid of predation?

- Inspect cages regularly and thoroughly for snails and crabs
- Protect clams with wire/plastic mesh cages for large predators (fish)
- Adapt your nursery design accordingly with predation


If it doesn’t work on the bottom…Float it!

How to handle fouling?

- Scrub the cages!
- Let herbivorous fish get in (larger mesh size when possible)
- Let ‘coralline algae’ colonize the cages

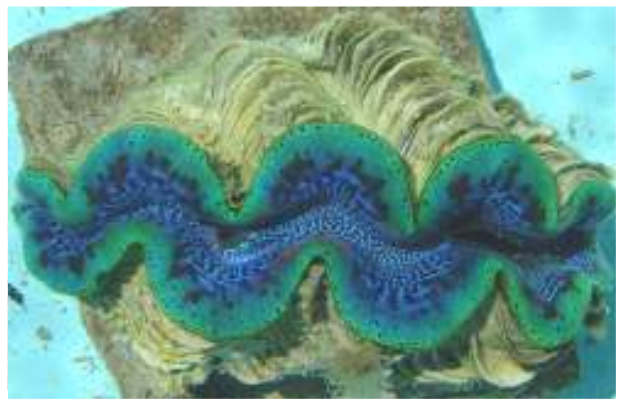
Simple sea cages design (Worldfish Center, Solomon Islands)

Another design, more expensive..

Marshall Islands Mariculture Farm

Your clams are ready!

Select the best possible colors !



Harvesting the clam

→Be careful not to harm the clam when you harvest it!

- If you damage the byssus, you might kill it.
- Use a sharp and soft blade knife, cutter, scalpel, scraper…

Harvest clams over 4cm only …

…..And scrub them thoroughly to get rid of fouling and predators on the shell

Packing 1

→There are different ways of packing giant clams.

"Dry pack" in a cooler box:

Packing 2

"wet pack" in plastic bags:

Shipping

- Once you have shipped your clams, you can collect your money, and keep farming!


Happy buyer
Happy farmer
Tangio tumas!