Challenges to Inshore Fisheries Management: Vatu-i-Ra Seascape

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Vatu-i-Ra Seascape – what makes this place special?
Diverse Coral Reefs in the Seascape

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Our oceans ..
Challenges

- Outdated legislation
- Poor enforcement of existing laws
- Disproportionate resources allocated – inshore vs. offshore
- No division within DoF focused on inshore fisheries
- Very little current information on most of our inshore fisheries
- # fishing licenses issued not based on data, or ability of an area to sustain the fishing pressure
- Lack of management plans for individual coastal fisheries
- Emphasis on fisheries development, not sustainable fisheries
- Exporting coastal fish, when there might not be enough for us!
Changes in Size of the Fish we Eat
Why does size matter?

Larger fish spawn exponentially more eggs.

Bigger fish have larger eggs, which are more likely to survive.
As of 2013:

LMMAs cover approx. 78.2% of inshore area

425 tabu areas – most common form of management within LMMAs

Supporting community based management

How effective are tabu areas as a tool for meeting different objectives for management?
How are LMMAs faring?

- Only 3/8 sites delivering fisheries benefits
- Only 1/8 sites delivering biodiversity benefits
- Harvested too frequently
- Poor participation in decision making
- Poor enforcement
1. Experimental harvests
Can assess objectives for:
- **Protection** (compare pre-harvest inside tabu to outside tabu)
- **Livelihoods** (compare yield from pulse harvest fishing inside tabu to regular fishing during year outside tabu)
- **Efficiency** (compare CPUE from harvest to CPUE from regular fishing during year outside tabu)

2. Future simulations
Can assess objectives for:
- **Sustainability** (can identify optimum harvest regime that will enable achievement of other objectives simultaneously)

Modelling simulations critical because we don’t have time or funds to track through multiple harvests over many years to see what happens
Value Chain Analysis: sea cucumbers, mud crabs, groupers
Seafood Supply Systems

- Production
- Distribution
- Consumption

✓ Each component of seafood security depends upon links to other processes in the supply chain

Source: Lida Teneva/CI
Full mapping of the market
But why is this important?

• Helps you identify the constraints to industry growth and competitiveness

• Understand relationships between buyers, suppliers and range of “market actors” in between

• Look for opportunities to “upgrading the chain”
Preliminary Results: VCA

- Inequitable benefits along the value chain
- Poor quality and standards
- Little enforcement of fisheries laws (e.g. size limits, bans on use of SCUBA)
- No management plan in place to control behaviour of exporters and businessmen
Size class of fish in markets

Parupeneus barberinus (Camaniwaqa)

Epinephelus polyphekadion (Kawakawa)

Lutjanus gibbus (Bo)

Lethrinus harak (Kabatia)
Rapid Assessment of Fish Stocks
Aimed to:

1. Share knowledge, information, and raise issues relevant to them
2. Share results of fisheries assessments, inventories and new research
3. Opportunity for focused dialogue on sustainable fisheries development
Vatu-i-Ra Seascape
Our oceans ..
What is Marine Spatial Planning?

Marine spatial planning (MSP) is a process that brings together multiple users of the ocean – including energy, industry, government, conservation and recreation – to make informed and coordinated decisions about how to use marine resources sustainably.
What is Marine Spatial Planning?

MSP generally uses maps to create a more comprehensive picture of a marine area – identifying where and how an ocean area is being used and what natural resources and habitat exist. It is similar to land use planning, but for marine waters.
Zoning Offshore MMAs
Vinaka Vaka Levu

Questions?

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