



INSTITUTE OF MARINE RESEARCH



Assessment/ resource mapping in small scale fisheries – Why and how???

by

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at

The Norwegian Fisheries Forum, 4-5 Oct. 2007

Small Scale Fisheries: Types

- Professional fishing
- Recreational
(residential/hobby/household) fishing
- Vacation/tourist fishing
- Others?



Small Scale Fisheries

Characteristics

- Daily catches: few to few hundred kgs/day?
- Trip duration: few hours to few days at sea?
- Not limited by gear type, but small scale and small amounts of gear?
- Vessel size: 3-15m?
- Propulsion: manual, sail, engine?
- Gear handling: manual, mechanical?
- Fish finding: none, hydroacoustics?
- Navigation equipment: none, GPS, radar.....?
- Catch conservation: live, fresh or iced?



Small Scale Fisheries Characteristics

- Fisheries management of small scale fisheries may include most known elements as licencing, regulations (input/output), MCS, combat IUU-fishing etc
- Small scale fishers: relatively poor, but many – so often politcally important groups, however often weakly organized



Small Scale Fisheries: Resources

- Resources available to SSF only (local stocks, shallow water...) – or:
- Shared stocks (with large scale/oceanic fisheries), due to migration, distribution of juveniles
- Often difficult to monitor with normal survey tools – as compared with oceanic stocks



SSF/R Monitoring and Assessment: **WHY?**

- VERY GOOD QUESTION INDEED
- Why not leave SSF to themselves?
- SSF monitoring: Low value for money
- Difficult/impossible to manage and control anyway
- Feel free to help me with more contra arguments
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SSF/R Monitoring and Assessment: **WHY?**

- The classical objective: *Provide scientific advice to management for sustainable development of SSF – STILL VALID ?*
- New objective (from the ecosystem approach): an obligation to monitor the development of natural living resources and their environment



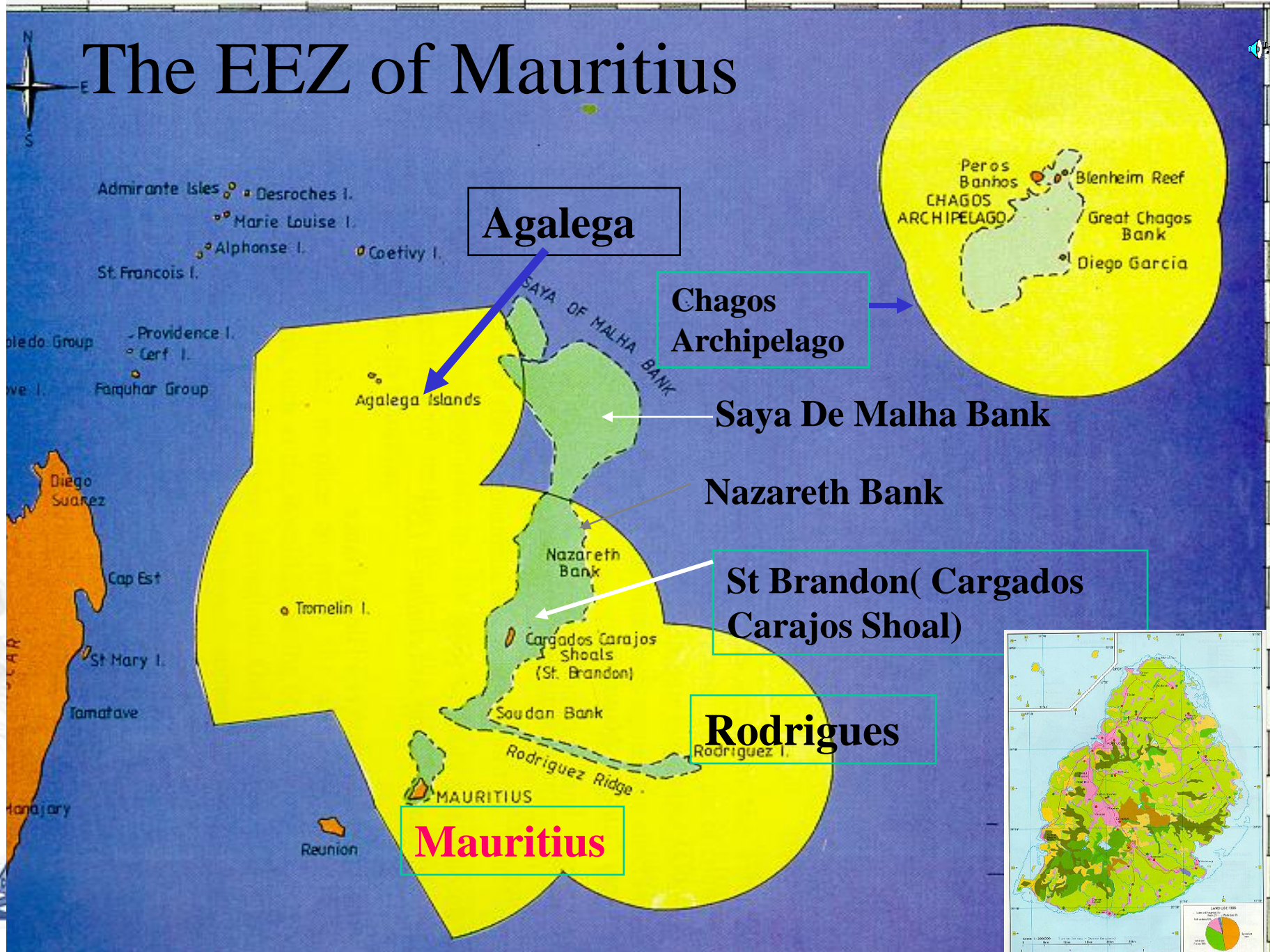
SSF/R Monitoring and Assessment: STATUS

- Example Norway:
- Poor knowledge of SSF resource base (local stocks....)
- Poor fisheries statistics
- Poor MCS
- Widespread IUU-fishing
- The Mauritian example



50° 55° 60° 65° 70° 75°

The EEZ of Mauritius



Agalega

Chagos Archipelago

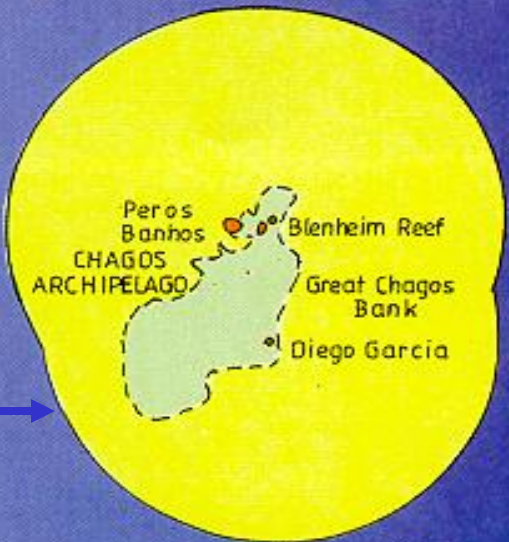
Saya De Malha Bank

Nazareth Bank

St Brandon (Cargados Carajos Shoal)

Rodrigues

Mauritius



The Mauritian example

- 13 fishing posts around the main island recording "all catches" down to individual fisher and species
- In the NW district (20% of the coast), 300 cases of IUU fishing prosecuted and brought to court in 2006, thereof 290 convicted to fines or prison
- Overkill?



SSF/R Monitoring and Assessment: **HOW?**

- Fishery independent methods:
- Survey time series with trawl, gillnet, traps, beach seines etc
- Use of hydroacoustics, laser, visual census....
- Fishery independent methods might be used in some cases or in combination with fishery dependent data – but most likely SSF monitoring and management will depend on fisheries data



SSF/R Monitoring and Assessment: **HOW?**

- Fishery dependent methods:
- Sampling of catch and effort data to establish time series for SSF (e.g. The Mozambique case) – extended in future with accompanying collection of environmental data



SSF/R Monitoring and Assessment: **THE CHALLENGE**

- Given a good sampling scheme and good time series:
- How to produce good management advice from a situation of multi SSF, multi gir, multi species..?
- How do we simplify a complicated picture?
- Ref meeting on Indicators yesterday
- Possible Theme session on next years ICES Annual Science Conference

ASC: Small-scale & recreational fisheries surveys, assessment, and management

- TOR 1: Field Data Collection Systems
- TOR 2: Assessment and estimation methods
- TOR 3: Indicators for use as a fishery assessment and management tool



SSF/R Monitoring and Assessment: **THE CHALLENGE**

- This is not a problem or issue restricted to development countries
- It is a global issue where we can develop systems together based on similar problems and mutual experiences
- **THANK YOU**

