

Co-management of a Marine Protected Area (MPA): the Trao Reef Marine Reserve project, Viet Nam

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Back ground, problem, and study goal:

- Open access regime and aquaculture development led to:
 - Destruction of coral reef
 - Reduction of fish catch
- Trao Reef Marine Reserve project was created in 2000 (Figure 1)

Study aimed to assess:

- People perception of MPA' goals and management
- Project achievements

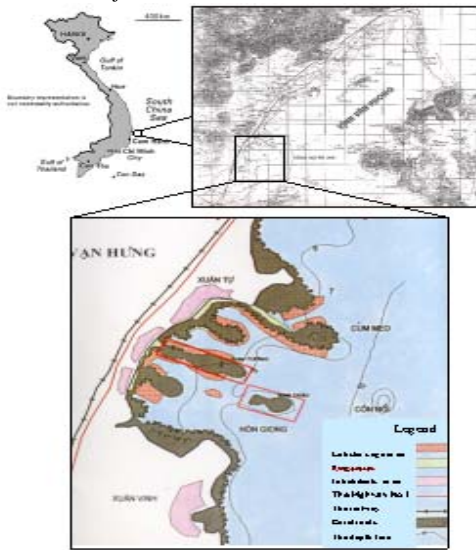


Fig. 1: Trao Reef Marine Reserve is located in Van Phong Bay, Van Hung commune, Van Ninh District, Khanh Hoa Province, in south central Vietnam. The MPA' limits are indicated by the red lines.

Awareness on the project after the two years:

- 100% knew the MPA and 92% were very proud.
- 93% understood the full goal of the project (Figure 3).
- 87% interested in activities of Management Board and Core Group.
- 78% agreed that Management Board and Core Group were effective.
- 63% participated in editing the regulation for the reserve.
- 24% mentioned about the difficulties in project operation.
- 6% noted contradictions: fishermen stopped fishing in the reserve areas.

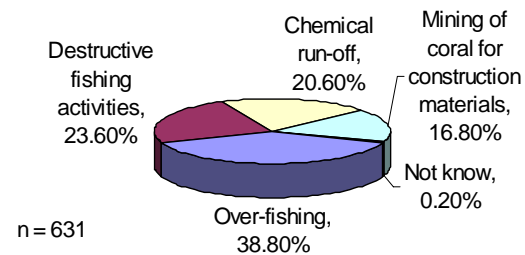


Fig. 3: Reasons for establishing the MPA, recalled by people.

Opinions on MPA management:

- 88% agreed MPA was a good instrument (Fig. 4).
- 71% thought co-management was best approach
- 24% , mainly fishermen, believed that state management would be better.
- 2.0% wanted to entrust the MPA to local community.

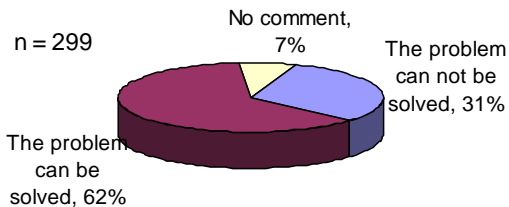


Fig. 4: Did the MPA solve the problems ?

Material and methods

- The RRA method was used.
- Survey contained three groups: household leaders of Xuan Tu village, People's Committee of Van Ninh district, and International Marine Alliance (IMA) Vietnam.

Major occupations	Number of respondents
Aquaculture	111
Fishing	105
Agriculture or Trade	45
Officials and others	38
Total	299

Results

Timeline of livelihood

- Until 1980, the main livelihood was agriculture;
- In 1980s, some involved in fisheries: diving, gillnet, basket with light;
- In 1990, start of lobster cage culture and tiger prawn rearing.

The Trao Reef Marine Reserve

- Strong commitment to apply the co-management approach (Figure 2);
- Core group comprised 9 villagers and 1 Coast Guard force member;
- Regulation includes management mechanism and legal implementation.

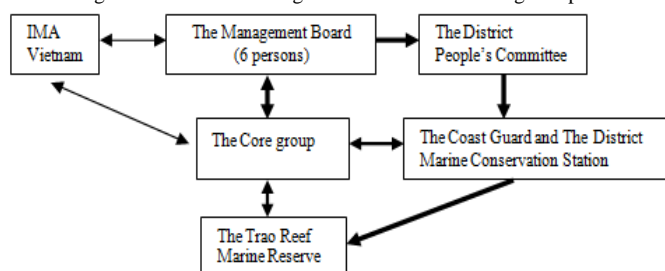


Fig. 2: The management mechanism of the Trao Reef Marine Reserve.

Achievements of the project after the first two years (Fig 5):

- Abundance of fish clearly increased compared to two years ago.
- 64% of lobster cage owners sensed an increase of lobster fry since 2000.
- 73% of lobster cage owners agreed that the quality of environment had improved and positively affected their culture.

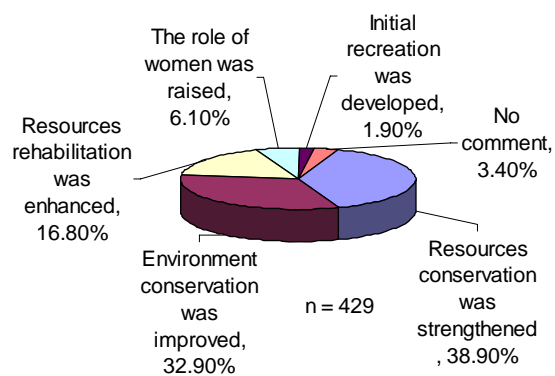


Fig. 5: Achievements of MPA co-management

Conclusion and Recommendation:

- Consciousness of resource conservation has increased in the commune.
- MPA is an effective tool to protect the fragile aquatic environment (coral reefs, sea grasses or mangrove swamp areas).
- Enhancing involvement of local community in MPA's design and operation contributes to effectiveness of management mechanism.