

The Club of Coastal Community for Sustainable Development of Tho Quang Ward, Son Tra District, Da Nang City, Viet Nam

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Key Message

- Da Nang's socioeconomic development is highly dependent on its rich marine and coastal resources particularly in supporting fisheries and coastal tourism. A main challenge is to guarantee the rights of the fisherfolk while managing coastal resources to support the coastal tourism industry.
- An innovative approach implemented by the Da Nang City government was the establishment of the Club of Coastal Community for Sustainable Development, which promoted the direct participation of local communities in coastal resource management (CRM) and alternative livelihood options.
- The city's integrated coastal management (ICM) program played a key role in expanding the involvement of civil society and facilitated a unique community empowerment and co-management arrangement.

Abstract

The City Government of Da Nang, Viet Nam implemented an ICM program in 2000 to support sustainable coastal development. One of the key activities was the implementation of coastal zoning plans to resolve or reduce multiple use conflicts in Tho Quang ward, a commune in Son Tra district. Tho Quang ward was zoned for tourism development but 38% of households relied on fishing, aquaculture, and seafood processing. Destructive fishing was contributing to the serious decline of targeted marine species in Son Tra peninsula, while seafood processing was polluting and affecting the coastal landscape. Environmental and marine resource guidelines of the country's Fisheries and Aquaculture Law were not observed by locals as they perceived that management and the protection of coastal resources were the sole responsibility of government agencies. The city government responded by establishing the innovative Club of Coastal Community



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for Sustainable Development to strengthen the capacity of local communities and encourage their involvement in ICM program activities including biodiversity conservation and protection and habitat rehabilitation. At the same time, it served as a forum for developing and promoting alternative livelihood options to generate higher incomes and better living conditions among members. The ICM program built up experience in community engagement and participation and facilitated an increase in awareness, capacity, and ownership among local communities. This case study documents the development of the club, the implementation process, and some initial results.

Background

Da Nang's coast is rich in natural resources that are very valuable for the city's socioeconomic development. Protecting and managing the marine and coastal resources was a big concern. The limited management capability and weak involvement of coastal communities in efforts to protect the environment was resulting in excessive exploitation of these resources.

In response, Da Nang City issued guidelines that strengthened local capability for resource management, protection of rare and endangered aquatic species, and recovery and management control of coastal ecosystems and habitats. The city government promoted the Club of Coastal Community for Sustainable Development, a model that devolved management responsibility to local communities in accordance with their customs.

Primarily, the club's purpose was to provide a solution that guaranteed the rights of fishers via a co-management approach. It improved the livelihoods of people, especially those heavily dependent on coastal resources. In addition to newly created jobs, club members were assured of sustainable utilization of the coastal fishery resources.

Such a model of shared powers, responsibilities, and benefits for the protection and rational use of coastal resources was developed and implemented in the community of Tho Quang ward under the ICM framework.

Location

Tho Quang ward, located in Son Tra peninsula (Figure 1) has a population of around 20,000 people living within an area of 46 km². Its coastline stretches 18 km, covering the entire Tien Sa harbor. An estimated 38% or an equivalent 2,136 households was reliant on or involved in Tho Quang's major industries including fishing, aquaculture, and seafood processing. Other households were involved in traditional handicrafts, including fishnet and dragnet production. These activities were contributing to the serious decline of targeted marine species in the Son Tra peninsula (Box 1).

Processing of seafood in Tho Quang ward was causing pollution and adversely affecting the coastal landscape. Locals did not strictly observe the environmental and marine resource guidelines as provided in the country's Fisheries and Aquaculture Law. Likewise, relevant local authorities appeared to be unconcerned with managing the area's aquatic resources. The perception was that management and protection of coastal resources were the sole responsibility of government agencies. However, these agencies were lacking in both work force and capacity to supervise the use of aquatic resources effectively and to prohibit illegal practices of some fishers.

Many fishers of Da Nang City were exploiting the coastal aquatic resources using illegal fishing methods and gears. They were deploying more than 1,000 small vessels with capacities under 33 CV (*cheval vapeur*, almost equivalent to horsepower) and 680 bamboo boats. This resulted in the continuing degradation of inshore aquatic resources. According to Mr. Do Long, Head of

Figure 1. Location map of Tho Quang ward.

Da Nang map and Tho Quang map: Imagery (C) 2018 CNES / Airbus, DigitalGlobe, Landsat / Copernicus, Map data (C) 2018 Google

Box 1. Marine biodiversity in Hon Chao and Son Tra peninsula (Nguyen and Hoan, 2006).

A marine biodiversity study of the Hon Chao (south of Hai Van) and Son Tra peninsula by the Institute of Oceanography in Nha Trang listed 191 hard coral species belonging to 47 genera, 3 soft coral genera, 3 seagrass species, 72 seaweed species, 53 mollusc species, 23 echinoderm species, and 221 phytoplankton species. Covering an area of 104 ha, the survey showed that only 10% of coral reefs are in good to very good condition, with the remaining 90% in poor to very poor condition. Degradation of most of the coral reefs in this area is due to sedimentation and protracted human extraction.

Propaganda and Training Section of the Da Nang Farmers' Association, "State authorities have difficulty handling this problem due to the livelihood issue of the fishers. The local government appealed to fishers for their self-discipline, rather than imposing more supervision by State authorities."

Approach and Methodology

The development and implementation of the Club of Coastal Community for Sustainable Development by the government, involved the direct participation of coastal communities. The club's aim was to facilitate the implementation of relevant policies and legislations beneficial to the fishers in Tho Quang Ward. It was also targeted to help in public information and education campaigns aimed at reducing adverse impacts on the coastal environment, and in assuring effective and rational use of coastal resources.

The ICM program, in collaboration with the Da Nang Farmers' Association, helped the Tho Quang coastal communities and fishers to expand their perspectives with regard to use and management of the coastal resources and the environment. The partnership executed various plans and actions on alternative livelihoods in sustainable industries for the fishers, affording them higher income and better living conditions.

ICM – a framework for sustainable development of Da Nang City

The implementation of ICM in 2000 was designed to support the city government's sustainable development targets as manifested in the city's Coastal Strategy and Implementation Plan (CSIP). The Da Nang ICM program focused on creating a policy environment and financial mechanism for the protection of coastal, environmental, and ecological values as well as building stakeholder capacity.

The ICM program provided problem-solving tools on environmental pollution, coastal resource degradation, natural disasters, and addressed livelihood issues and food safety concerns (PC Da Nang City, 2001; PC Da Nang City and PEMSEA, 2004). In particular, the coastal use zoning plan was instrumental in helping the government to solve use conflicts and conserve biodiversity including coral reefs around the Son Tra peninsula (PC Da Nang, 2005).

Features of the club

The club was launched on 2 November 2010 with leaders and representatives from the Da Nang Farmers' Association, Da Nang Department of Natural Resources and Environment, Da Nang ICM Program, Da Nang Environmental Protection Agency, Division of Natural Resources and Environment of Son Tra district, Economic Division of Son Tra district, Farmers' Association of Son Tra district, People's Committee, Fatherland Front and Farmers' Association of Tho Quang ward.

The club held its first meeting on 4 December 2010, to approve its membership and chairmanship. Subsequent regular quarterly meetings were held thereafter. Membership increased from 20 to 37. The club was primarily a volunteer organization of workers in fishing, aquaculture, and seafood processing. Its policy was to protect the environment at the community level and assist in the enforcement of the Fisheries and Aquaculture Law and other guidelines related to fishing, aquaculture, and sea product processing (Box 2).

The club, in cooperation with the Farmers' Association, spearheaded information and education campaigns that mobilized coastal residents to implement policies and laws on fisheries and coastal resources as well as to participate in protecting the environment in Tho Quang ward and nearby areas (Box 3).

Results

Due to the club's efforts, several coastal communities became committed to: (a) participate in coastal resources and environmental protection; (b) practice sustainable use of coastal and marine resources; (c) implement community-based waste segregation and wastewater treatment; and (d) participate in environment and ocean-related events. The following are some of the major outcomes of the club initiatives:

- 1. Increased awareness on environmental protection.** About 300 attendees from Son Tra and Ngu Hanh Son districts participated in three information and education campaign training events on ICM. The attendees also enhanced their disaster preparedness skills during the exercises. Seventeen beach cleanup campaigns were conducted and attended by all 300 of the club's members. Flyers about the fisher's role in the development of the Environmental City were disseminated. The club also launched the Green-Clean-Beautiful Sundays to advocate environmental cleanup. This also had spinoff benefits for the club itself. In 2012, 22 members from Tho Quang and other nearby wards joined the club (15 from Nai Hien Dong Ward, 4 from Man Thai, 1 from Tho Quang, and 2 from Thuan Phuoc Ward).
- 2. Improved protection of coastal and marine resources and management of water pollution.** The club was responsible for both harvesting coastal resources using allowed methods/tools and protecting coral reefs and seaweed in Son Tra. Since the club's formation, better monitoring and enforcement plus more fisher-volunteers led to the apprehension of offenders in eight cases of illegal coral exploitation and two cases of seaweed collection within the restricted zone in Son Tra peninsula. People in the community completely discontinued illegal coral extraction

Box 2. Objectives and activities of the Club of Coastal Community for Sustainable Development.

The club's purpose was to enhance the responsibility of coastal communities in the protection of coastal resources and environment, and strengthen coordination among management authorities and the communities. Club members were typically local fishers who volunteered to protect the corals. Members could potentially increase their income from fishing due to better working conditions and assistance from authorities.

Members were duty-bound to prevent and promptly report violations, such as dynamite fishing and collection of corals in protected areas to authorities. They were also responsible for disseminating information on marine and coastal resources protection to other fishers in nearby communities.

The club's activities were to:

- develop a five-year (2010–2015) coastal development plan for the community;
- coordinate training to raise public awareness on coastal resources and environment protection, laws and regulations, cultural behavior, and disaster risk reduction and prevention skills. Participants in the training could include club members and representatives of fishing, aquaculture, and seafood processing households;
- participate in environmental response exercises organized by the government;
- conduct information and education campaigns on coastal resources and environment protection for the Action Day-Week-Month for Environment, Clean up the World Day and other occasions;
- mobilize coastal communities to participate in beach cleanup activities such as during Green-Clean-Beautiful Sunday, National Week of Clean Water and Sanitation, World Environment Day, Vietnam's Sea and Islands Week, and Clean Up the World Day;
- guide, advise, and conduct vocational consultations and technical assistance for people to secure loans in shifting to other jobs; and
- recognize individuals who exhibited excellence in the coastal green-clean-beautiful environmental protection, and publicize their example for others to emulate.

Box 3. The Articles of the Club's Convention on Coastal Resources and Environment Protection.

The main articles of the Club's Convention on Coastal Resources and Environment Protection were:

1. Comply with the regulations in managed fishing areas, ensure security and order in each area.
2. Respond to coastal environmental incidents and rescue people and ships in distress.
3. Detect, denounce, and deter destructive practices such as fishing with explosives, toxic chemicals, electric shock, fine mesh nets; collecting coral without permits; hunting birds and wild beasts; cutting forest trees; and damaging the ecosystem in the Son Tra peninsula.
4. Supervise and mobilize the households engaged in aquatic products processing and services business in Tho Quang Ward to stop discharge of untreated waste and wastewater into the environment, and drying of seafood along coastal roadsides.
5. Mobilize people to join the beach cleanup activities in support of the Green-Clean-Beautiful Sundays and Action Day-Week-Month for the environment.
6. Encourage members to be pioneers and to assist each other in shifting to other jobs to support coastal sustainable development.

and significantly reduced the use of small dragnets for inshore fishing. Club members were active in information and education campaigns, raising the awareness of other fishers in neighboring areas on the rules of marine resource exploitation and reef protection. Local authorities were able to better regulate aquaculture activities that were polluting marine resources.

3. **Improved coastal environment.** The club mobilized 500–600 people to regularly clean public areas as well as their residences along the beaches. Communities reintroduced some coastal flora and fauna, which improved the Tho Quang ward landscape. The club also promoted environmental sanitation such as solid waste collection along 5 km of beach area by the Hoang Sa coastal road (from Loc Hoang to Thanh Vinh). It recommended to the city government the provision of appropriate space for drying seafood products. Some 25 households received adequate drying space that did not affect available recreational areas. Club members enjoyed a more conducive environment that enhanced their quality of life.
4. **Increased participation of communities and organizations in marine and coastal resources and environmental protection.** A total of 2,136 aquaculture and fishing households in Tho Quang ward benefited from information campaigns. As a result, 1,800 households committed to protect coastal resources and the environment, with no aquaculture, no coastal fishing, no seafood drying by coastal roads, and collaborate with City government to manage solid waste and carry out treatment of sewage before discharging into the environment.
5. **Job creation for local fishers through skills training and livelihood assistance.** A total of 200 participants from 42 fisher households were engaged in vocational training. As a result, 40 fishing households switched to fish

farming, mushroom and flower cultivation, and other services such as offshore fishing boat servicing. Five households formerly engaged in aquaculture shifted to tourism services, acquiring two canoes and an upgraded vessel (35 horse power capacity). The new vocations provided the fishers with more stable sources of income and better working conditions.

Club members also received assistance such as guidance in availing of loans, experience sharing, and technical and vocational consultations. Six households received loans from the Farmers' Association of Tho Quang ward to assist them during shifting from aquaculture to other jobs. Moreover, club members and fisher households were able to invest VND 530 million (US\$ 25,000) to upgrade three small boats to larger vessels for tourism services. Various initiatives created 14 permanent jobs, 5 of which went to members of the club. Finally, it was able to convince 20 households doing fish and snail farming in the storm-sheltering area of Tho Quang Ward to obey the regulations prohibiting farming in the area.

Lessons Learned

The Club of Coastal Community for Sustainable Development was an innovative approach in Da Nang for organizing and engaging local communities as stakeholders in environmental protection and sustainable use of natural resources under the ICM program. It facilitated interaction between club members and government representatives, and gave a voice to the communities who were otherwise sidelined but affected by government planning and development programs.

With active involvement early on, the communities were able to take ownership of the club and to convey the rationale and benefits of improved

CRM to authorities. The government became more aware of the priorities, capacities, and needs of the community. The government supported the community with skills development, financial aid, technical advice, and alternative livelihood, hence enabling the community to experience the benefits of responsible management.

With the active collaborative effort of the people and organizations, the adverse impacts of past activities that resulted in pollution and depletion of marine resources were reduced and even eliminated.

Reducing the dependence of communities on coastal and marine resources, and enticing them to switch jobs or to look for alternative livelihoods, naturally lessened the pressure on the environment. It likewise enabled the recovery of some key marine species such as coral, algae, and seaweed. More importantly, it generally provided higher income with better working conditions, leading to a much-improved quality of life.

Despite considerable achievements, efforts are still needed to resolve some challenges, including: (a) limited financial assistance to fishers who switched jobs; (b) insufficient knowledge and competency of club members continue to influence performance,

despite undergoing training; and (c) lack of sustained support from relevant sectors and authorities. These challenges will be overcome through sustained ICM practices.

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