

**Community participation in marine conservation in Vietnam:
a case study from Cu Lao Cham MPA**

Mr Chu Manh Trinh, Cu Lao Cham Marine Protected Area Authority
Email mtrinh.clcmpa@dng.vnn.vn; mtrinh.clcmpa@gmail.com

Ms Paula C. Brown, PhD Candidate, Sydney University
Email paulabrown@student.usyd.edu.au; paula.claire.brown@gmail.com

Abstract

The management of small scale fisheries and implementation of marine protected areas (MPA's) are both hot topics of current marine policy development in Vietnam. Commonalities exist between these two policy areas, and MPA's are viewed as providing good opportunities to model approaches for co-management involving coastal fishing communities. There has been considerable effort made to capture the essence of successful resource management interventions in order to develop appropriate fisheries co-management models for Vietnam's unique context over the last decade. One of the most significant questions arising from this collation of experience is how to maintain commitment and involvement of all people in the process, from different levels of government to the local community?

Against this backdrop of macro policy change sits the position of Vietnamese small scale coastal fishers, who are often perceived as unwilling to invest in alternative future livelihood opportunities. Lack of long term resource access security, access to capital, and declining fisheries resources are all potential reasons for this lack of confidence in future investment, resulting in unwillingness to change. Limitations of rural locations, lack of infrastructure, low education, and limited life experience outside of the small scale fishing way of life all complicate the transformation of fishers' lives and livelihoods, and impact on the success of interventions seeking behavioural and livelihood-related change.

For participatory interventions to be successful amid this complexity requires the commitment, and not just involvement of local people. For this commitment to evolve, local people need to perceive some benefit from participation. But how can this commitment be maintained when the process itself is long term and the resulting benefits may take even longer to manifest? Although the form of benefit may be different for higher level stakeholders, its role as a key driver is equally important.

These issues will be explored with reference to one island MPA case study in central Vietnam. Cu Lao Cham MPA project commenced in October 2003 and the MPA was formally established in December 2005. The population of around 3000 people is concentrated on the largest island in the Cham Islands group, with around 80% of the population dependant on fishing. The island's size, restrictions on forest use, and its military importance also limit land availability for expansion of agricultural or urban development. The Islands' people, fishing seasons and tourism are also impacted by the

typhoon season which can limit boat traffic and cut transport between Cu Lao Cham and the mainland for long periods.

The last 12 months of the MPA Authority's operation have focused strongly on community development interventions around alternative livelihood activities, targeting households determined to be most affected by the MPA regulations. Management of household waste has also been addressed during recent years through community participation processes. This presentation will explore the evolution of participatory activities through these experiences, focusing on the key themes of model development and implementation, the involvement and commitment of local people, and the connections to benefit that have arisen.

INTRODUCTION

The purpose of this paper is to share experiential learning about two different programs within the CLC MPA involving community participation: community-focused garbage disposal training and fish sauce production training. Both these case studies are successful examples of community-level participation in marine conservation, and their examination provides opportunity to reveal insights about key themes in grassroots MPA implementation, namely participation, benefit and use of model approaches. Our aim is to engage the audience with these themes, to represent the story of local experience around these themes, and make this experiential learning accessible to the broader MPA community.

This paper is based on reflection on the participatory activities undertaken at CLC MPA during 2007 by both authors, from their positions as both researchers and practitioners.

Cham Island MPA was established on 20 December 2005 under Decision No. 88/2005/QD-UBND of the Provincial People's Committee of Quang Nam. The MPA is an outcome of Cham Island MPA Project, which was established and operated under an agreement between Government of Vietnam and Government of Denmark in order to support the establishment of a MPA, and operated from October 2003 to September 2006. The objective of the Cham Island MPA is to conserve marine biodiversity, protect and effectively exploit ecosystems, natural resources, environment and cultural – historical values to ensure sustainable development (Chu Manh Trinh 2006a).

Cham Island MPA has an area of about 6,710ha including water surface and islands. Hon La is the largest and only inhabited island of the eight islands of the archipelago with an area of approximately 1,549 ha². On this island, Tan Hiep commune comprises 4 villages with the two major communities of Bai Lang and Bai Huong. The total population is approximately 2,584 people in 589 households, in which 80% of the population resides in Bai Lang village (Chu Mahn Trinh 2006a). The main economic activity in Cu Lao Cham is fishing, with over 90% of household heads' occupation related to fishing according to a community survey undertaken in August 2007 (Tri 2007). Tourism activities are still limited but will become increasingly important in future years.

The key participatory components of the community-based, co-managed CLC MPA are as follows:

- Participatory zoning plan/management regulations establishment
- Multi-sector stakeholder collaboration
- Community-based livelihood impact assessment
- Participatory assessments/monitoring
- Initiation of alternative income generation
- Participatory MPA management plan (Ngan & Trinh 2007)

Historically, participatory approaches have been utilized in implementation of the CLC MPA for development of the MPA's zoning and management regulations with the local Cu Lao Cham people, and socio-economic assessment of fishers affected by the MPA zoning. The co-management approach utilized at CLC is summarized in Chu Manh Trinh (2007) based on information contained in the following reference material (Berkes 1991, Ross 1996, Hanna 1998, Luu 2001, Dao 2005, Tinh uy Quang Nam 1998, Bach 2002, Chu Manh Trinh 2006 b and 2006 c, Mikkilsen 1995, Hill & Wilkinson 2004, The World Bank 1998). This approach evolved experientially through these MPA processes, culminating in the process utilized in the two case studies discussed below.

WHY IS PARTICIPATION IMPORTANT?

The creation of a conservation ethic at the community level requires active facilitation, it cannot be assumed to exist endemically or to develop organically. Participation enables longer term commitment of local people and ensures the momentum of the project, through the provision of cyclical feedback and action resulting from the review of this feedback – and the sharing of lessons learned and resulting actions.

Participation can enable 'social learning', a process in which multiple stakeholders bring together their different knowledge, experiences, perspectives, values and capacities for a process of communication and critical reflection as a means of jointly understanding and addressing shared challenges and potential options (McDougall et al, 2002:28 in Prabhu et al, 2007:19). The incorporation of community participation into a broader co-management spectrum from community to government provides the avenue whereby this community-generated learning can benefit the overall management of an MPA.

These case studies of community participation presented here show the foundation of co-management at the community level, which also represents future management capacity for CLC MPA. The engagement of community represents a 'two way street' where local people learn about responsibilities as well as benefits of involvement with 'their MPA'.

THE ROLE OF BENEFIT

Community participation activities such as the case studies discussed below represent micro-communities of mobilization around key MPA themes. What they achieve should be evaluated more broadly than logframe inputs and outputs, as they create capacity for grassroots support for the MPA through the transfer of benefits to the local people.

The potential power of benefit as a motivator for participation is significant, and calls for a transparent understanding of the perception of benefit, and role of this perception in sign on to collaborative processes. It is worthwhile to examine what the different perceptions of benefit at one site may be: a shift in power? Access to credit? New livelihood opportunities? Improvements in rights to resources for local people? Or are no benefits perceived and are all perceptions negative? Do the negatives outweigh the positives? What is it that different people want from the process?

It is equally possible is that there may be community members outside these ‘micro-communities of engagement and benefit’ who do not perceive any benefit of the MPA. We can look to successful examples of community engagement in MPA management to perceive how to mobilize more of the community in conservation of the MPA, and further facilitate community pride and ownership in ‘their MPA’. It can’t be assumed just because there are some successful activities in an MPA that all of the community supports it, and at least one of the authors have observed instances of individuals who have refused to voluntarily participate with MPA activities as ‘the MPA never brought any benefit to them’. So how can the community support be maximized by greater or broader involvement, and that involves benefit?

WHY ARE MODELS IMPORTANT?

Participatory NRM, co-management and collaborative management all describe types of model approach that are routinely applied to the management of natural resources. The way that models are implemented and the kinds of assumptions that are made in this process are important in determining the end results.

The current MPA model involving community requires the signed-on commitment of local people, and not just involvement – and their commitment depends on their perception of benefit. How does a particular model or approach in participatory NRM address this from the outset and along the way?

Similarly, the way that local issues are identified at the commencement of an activity strongly influences success, and may be more important than selection of ‘the best model’ at the outset. Wholesale application of a model without consideration of local factors and issues could lead to the failure of the entire process. Conversely, too much process could risk losing involvement of local people. There is a strong need to maintain a balance, and maintaining that requires awareness, facilitation training and commitment to its maintenance. This creates a large implication on the role of individual facilitators and their ability to fulfill these roles and requirements.

Models need guidelines of implementation, and these guidelines in turn need facilitation to implement. Both guidelines and facilitation need training, and the question becomes how to teach this? Another key question in the implementation of community participation is how to realistically sustain it? Partly this requires capacity building local people to be able to be involved, and part of it is ensuring that the system that involves them continues to do so into the long term. This calls into question the longer term availability of both commitment and resources to ensure implementation.

CASE STUDIES

The two case studies presented in this paper are not being evaluated on their success in achieving alternative income generation or environmental management objectives, but as participatory mechanisms. The power of these activities extends beyond these initial objectives to include their role as builders of community around the MPA, creators of ‘co-management capacity’ at the grassroots level, and the establishment of a history of new environmentally focused community process.

CASE STUDY 1 – FISH SAUCE TRAINING

The fish sauce training program commenced during mid-2006 as one component of a broader vocational training program developed to explore potential alternative income generation options and reduce high fishing pressure and exploitation of marine resources (Chu Manh Trinh 2006a). 21 of the 126 community participants involved in the vocational training program undertook the initial fish sauce production training, with the group number reducing to 14 producers. After lower production in their first season of operation, the trainee group increased their production to 1543 litres in the last year (Ngan & Trinh 2007) (Figure 1).

A significant difference between this training activity and others conducted during the vocational training program is the longevity of the training and facilitation of the fish sauce group from mid-2006 to December 2007. The payoffs from this extended period of adaptive learning and cyclical feedback are clearly visible in Figure 1, which illustrates the increase between fish sauce production in 2006 and 2007.

The extended duration of this training has assisted the trainees to feel more confident in selling their products on the open market. It is intended that fish sauce production will be further strengthened by creation of a Cham Islands Fish Sauce Association, and that this livelihood model can be used for wider community learning (Ngan & Trinh 2007). These authors recognize that important areas of ongoing support include production knowledge, marketing, entrepreneurship and fish sauce logbook maintenance. These results emphasize the need for ongoing support for training and active facilitation as a component of broader support packages for sustainable management of marine resources.

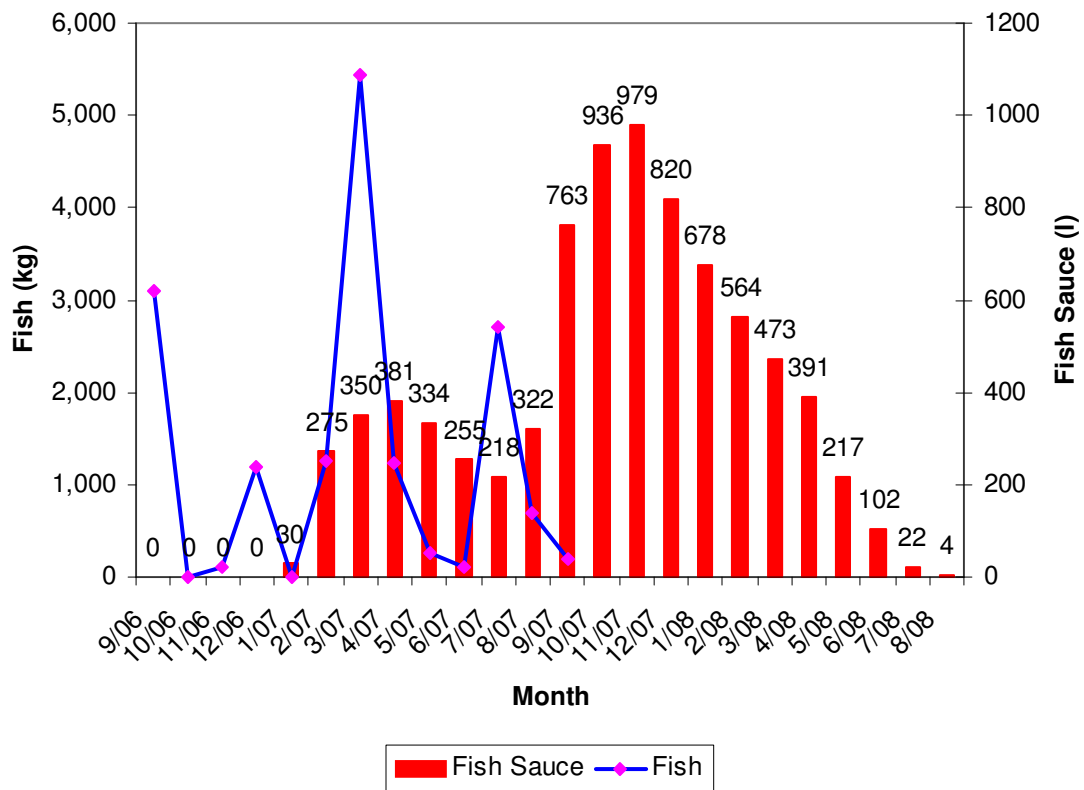


Figure 1: Fish material inputs and fish sauce production, 2006-2008



Figure 2: training for revision of fish sauce production techniques in July 2007

CASE STUDY 2: GARBAGE MANAGEMENT TRAINING

The garbage management training differs fundamentally from the previous case study in that it involved a very large proportion of the population of one village, and aimed to teach principles of environmental management for long term application. The training took place in Bai Huong village in March and April 2006, in order to increase compliance with the village's organic composting system. A pilot project was commenced in Bai Huong village in September 2006 under direction of CLC MPA and with participation of the community, to sort waste into organic and inorganic fractions at the household. A low tech composting facility was established close to the border of the village for composting of the organic fraction of waste (Viet & Berntsen, 2007).

The participatory activity involved groups of trainees competing in a game show atmosphere to answer questions relating to identification of garbage present in the village, identification of this garbage as organic, inorganic or recyclable, and participatory mapping to identify locations with high volumes of garbage. Different teams of participants then compared and debated their results, seeking consensus agreement over points of contention where results differed (figures 3 and 4). This combination of factors resulted in dynamic, active and involved workshops and participants.

The community-based garbage management model aimed to encourage shared responsibility and benefit through improved waste management at the local level, by combining local participation with government and external donor assistance. This model is reflected in Figure 5. This represented a shift from the previous situation where garbage management was 100% responsibility of government. The workshops sought to establish a 'polluter pays' principle that would endure within the community long after the 'dust' of project activity had settled and associated financial support had come to an end. The garbage model encourages personal contribution of a different kind – in terms of personal time, discussion and learning, and resources and assets.

The results of this training have been somewhat critically evaluated due to local people's subsequent non-compliance with garbage sorting. However this activity should be viewed through broader lenses, as it is an important example of community mobilization around a community-level environmental problem. The reasons behind the community breakdown in participation also tell an interesting story about the impact of adverse outcomes. According to interviews with stakeholders and community representatives documented by Viet and Berntsen (2007), the community was committed to the system and the sorting of garbage was considered to be easy. However, the pilot project ceased due to complaints from the neighbours near to the composting facility. No facilities were provided for disposal of the inorganic waste, and it was burned in open fires at the composting facility to which neighbours protested being unfairly affected by the resulting smoke. This situation of disproportionately high cost of waste disposal being inflicted on a small section of the community presents a useful example of how a negative impact to a few people can threaten the success of the broader MPA activity.



Figure 3: debate during the garbage sorting training



Figure 4: presenting participatory mapping

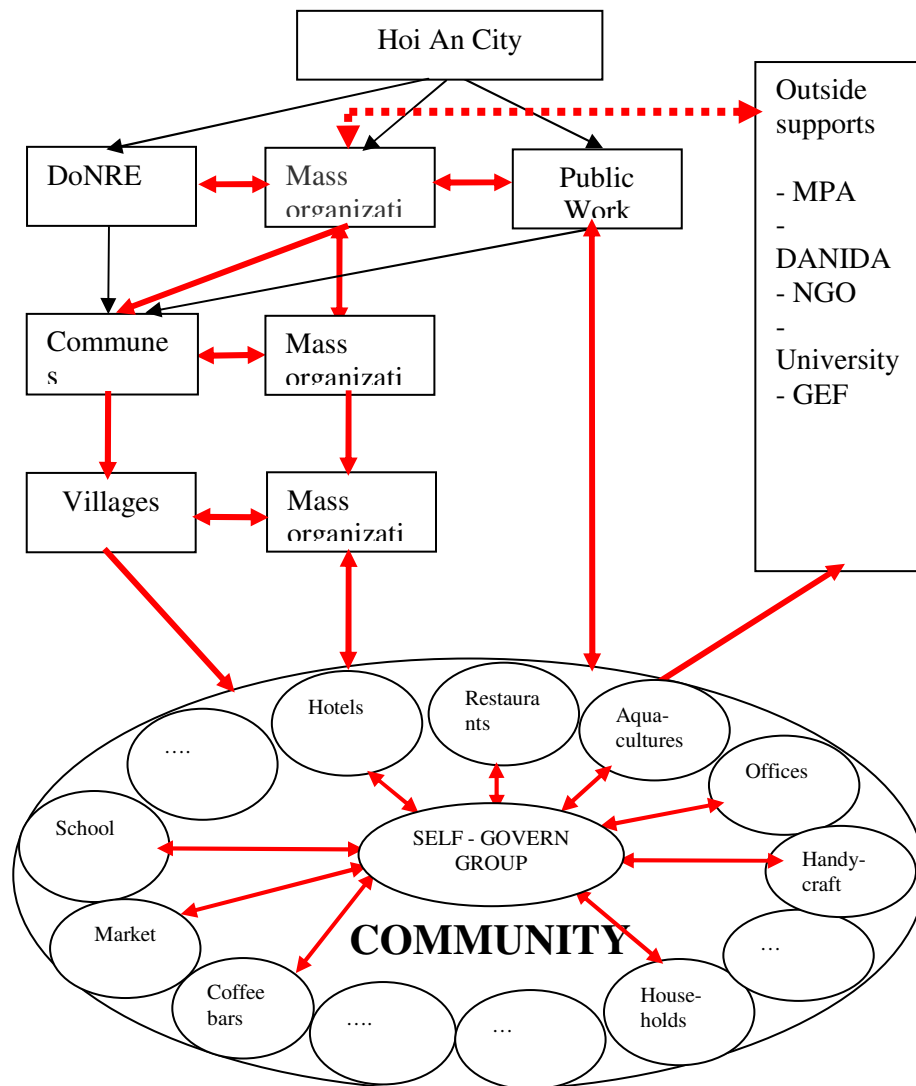


Figure 5: connection between community contribution to garbage management and broader co-management context

THE FUTURE OF PARTICIPATION?

The community education in garbage disposal held during 2007 has established a baseline level of community education that will be invaluable for future garbage management at Cu Lao Cham. The development of this training as an educational model may also have wider significance in the region, as it is intended to be used within two communes on the adjacent mainland coast, with the support of Hoi An District People’s Committee. In addition, training for fish sauce production is expected to be extended to a new trainee group on Cu Lao Cham in the coming year.

The extension of both of these programs during 2008 illustrates the important precedent that locally arising models can have within their region. Such extension also has

implications in terms of how the models themselves are propagated – ultimately the future success of their dissemination depends not only on the technical transfer of information but equally on ongoing support for the training and facilitation components that enable local people to fully participate and continue their learning and engagement with the MPA as a local management organisation.

The future of participation also depends in part on maintenance of the commitment to continue support for the process, from both the managers above and by the local people at the grassroots level. Commitment to participation meets in the middle of the collaborative management spectrum with the contributions of both community and government agents.

CONCLUSION:

At the fishing community workshops held at CLC in December 2007, participants from Bai Huong, Bai Ong and Cam villages were all in agreement that day net and thanh ba/three layer net fishing were more effective in 2007 as the MPA patrolling team successfully prevented ‘gia cao’ or trawling fishing near Cu Lao Cham (CLC MPA Authority 2007). This is clear evidence of benefit to the local community of the MPA and of the community’s awareness of this benefit, and also illustrates the importance of effective MPA enforcement in retention of this benefit.

A significant driver of all of this is acknowledging that participation provides opportunity for benefit, with flow-on benefits to assisting an MPA achieve its conservation goals at the grassroots level. Denial of this opportunity to participate could result in the opposite effect, lack of community sign-on and support for the above.

Support for this capacity building in the present is an investment in the future of the MPA, and a partial answer to the question of ‘how to maintain the involvement and commitment of the community after the project ends?’.

Finally, it needs to be reiterated that ‘co-management is not a model to be applied blindly but something to be learned’. Collaborative natural resource management needs adaptive learning and cyclical reflection to move forward and the experience of the fish sauce training group provides evidence to the truth of this in the situation at Cu Lao Cham.

REFERENCES

Bach, H., 2002. *Methodology and Process for Indicator Development*. Ministry of Natural Resources and Environment Viet Nam, Hanoi.

Berkes, F., 1991. ‘Co-management: the Evolution in Theory and Practice of the Joint Administration of Living Resources’ *Alternatives* 18(2) pp 12-18.

Chu Manh Trinh, 2006a. *Completion Report on the Cham Islands MPA Project’s Activities (10/2003 – 9/2006)*. People’s Committee of Quang Nam Cham Islands MPA Management Board, Hoi An.

Chu Mạnh Trinh, 2006b. *Báo cáo Chỉ thị Môi trường Nước ven bờ Quảng Nam*. Sở Tài nguyên và Môi trường Quảng Nam.

Chu Mạnh Trinh, 2006c. *Kế hoạch Quản lý Khu bảo tồn biển Cù Lao Chàm*. Khu Bảo tồn biển Cù Lao Chàm, Quảng Nam.

Chu Mạnh Trinh, 2007. Promoting community roles in environmental and natural resources protection and reasonable uses within the Cham Islands Marine Protected Area. *Science and Creativeness Magazine of Quang Nam Science and Technology*, 20 and 32. (N^o 52 – 5/2007) pp. 18-19.

CLC MPA Authority, 2007. *Results of Fishery Community Workshop, December 2007*. Unpublished transcript, translated from Vietnamese.

Đào Thanh Hải, 2005. Phát huy Dân chủ ở Cơ sở trong thời kỳ mới. Nhà Xuất bản Lao động – Xã hội.

Hanna, S., 1998. *Co-management in Small –Scale Fisheries: Creating Effective Links Among Stakeholders*. International CBNRM Workshop, Washington, D.C.

Hill, J. and Wilkinson, C., 2004. *Methods for Ecological Monitoring of Coral Reefs*. Australian Institute of Marine Science, Townsville.

Lưu Đức Hải, 2001. *Cơ sở Khoa học Môi trường*. Nhà Xuất bản Đại học Quốc gia Hà Nội.

McDougall C., Kaski ACM Team, NewERA ACM Team and Forest Action 2002. *Planning for the sustainability of forests through adaptive co-management: Nepal country report*. ACM Project/MoFSC Internal Research Report, CIFOR, Bogor.

Mikkilsen, 1995. *Methods for Development Work and Research*. Sage Publications. New Delli/Thousand Oaks/London.

Nguyen Thi Hong Ngan and Chu Manh Trinh, 2007. *Draft Report on Consultancy of Development of the Cham Islands Fish Sauce*. People's Committee of Quang Nam Cham Islands MPA Management Board, Hoi An.

Prabhu, R., McDougall, C., and Fisher, R. Adaptive Collaborative Management: A Conceptual Model In Fisher, R., Prabhu, R. & McDougall, C. (Eds.) 2007. *Adaptive Collaborative Management of Community Forests in Asia: Experiences from Nepal, Indonesia and the Philippines*. Center for International Forestry Research (CIFOR), Bogor.

Ross, H., 1996. *Prospects for Co-management in Australia*. Center for Resource and Environmental Studies, Australia National University, Canberra.

Tỉnh uỷ Quảng Nam, Ban Dân vận. 1998. *Điều tra Nghiên cứu Thực trạng và đề xuất Giải pháp thực hiện Phương châm “Dân biết, Dân bàn, Dân làm, Dân kiểm tra” ở Quảng Nam*. Sở Khoa học và Công nghệ Quảng Nam.

The World Bank, 1998. *Economic Analysis and Environmental Assessment*. Environmental Assessment Sourcebook Update, Washington DC.

Tri, H. M., 2007. *Survey Report on Income, Environmental Awareness and Livelihood Consultation to Affected Households*. Consultancy report to MOFI-DANIDA DCE Programme and Cham Island MPA Authority, September 2007.

Viet, N.T. and Berntsen, K., 2007. *Feasibility study on the establishment of a solid waste management system for Cu Lao Cham* (2nd draft report) October 2007. Vietnam – Denmark Development Cooperation in the Environment (DCE) 2005-2010, Hanoi.