Participatory fisheries conservation in the Stung Treng Ramsar site, Cambodia

Best Practice Case Study by WorldFish Cambodia[1]

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Introduction

This best practice case study in participatory fisheries conservation is derived from two projects undertaken by WorldFish Cambodia in Stung Treng:

- Stung Treng Ramsar Site in Cambodia – Integrating Fisheries Management and Wetlands Conservation (April 2011-June 2017); and
- Empowering Community Management of Fish Conservation Zones (FCZs) in Stung Treng Ramsar Protected Wetlands, Cambodia (April 2014-July 2017).

The overall goal of the projects was to reconcile conservation of critical freshwater habitats and species within the Stung Treng Ramsar wetland complex and the sustainability of local livelihoods through ecosystem-based fisheries co-management. In contrast to the existing 'one community fisheries (CFi) - one fisheries area' approach the projects engaged more than one CFi to protect selected sites that may or may not belong to any CFi, but that benefit them all.

An unexpected result of the participatory FCZ site selection was that the communities selected large areas of water extending far beyond the boundaries of individual CFi management area, typically established at a single village scale. Although all three sites that were selected initially, overlapped partially or entirely with existing boundaries of CFi management areas, their large size and location necessitated collaboration of 2-5 CFi groups to manage each FCZ collectively. This had never previously been attempted previously in Cambodia. Thus, a joint management committee was newly formed for each FCZ, consisting of representatives of multiple village CFi groups, followed by the development of a site-specific management plan and patrol rotation arrangement. These new arrangements were duly endorsed by relevant commune and district authorities.

The projects applied a wholistic participatory approach ranging from site selection, planning, implementation, monitoring and lessons learned. Local communities and relevant stakeholders agreed on the initial selection of three, and later selected two more fish conservation areas within the Ramsar site. These sites were located in previously unregulated areas. From the start it was recognized that the restrictions associated with protecting these areas could negatively impact the fisheries-dependent livelihoods of some local community members. This would occur if those affected did not have access to alternative fishing grounds or other livelihood opportunities during the time when fishing activities were

[1] This case study was prepared in kind by Kosal Mam, WorldFish Cambodia, for the Mainstreaming Natural Resource Management Project which was funded by the Critical Ecosystem Partnership Fund. The Critical Ecosystem Partnership Fund is a joint initiative of l'Agence Française de Développement, Conservation International, the European Union, the Global Environment Facility, the Government of Japan, the MacArthur Foundation and the World Bank. A fundamental goal is to ensure civil society is engaged in biodiversity conservation.

severely restricted in the new fish conservation areas. We saw the need to weigh the positive and negative impacts of the new fish conservation zones, which included the need to protect the interests of the most vulnerable people in the communities.

To address local concerns regarding the establishment of new fish conservation areas we explored who was likely to be most impacted. We found that the most vulnerable people were those who had no alternative livelihood strategies, households headed by widows, households that had many dependents, and fishers who did not have motorized boats to access alternative fishing grounds.

Following concerns voiced by local residents regarding access to resources we established a social safeguards mechanism. Social safeguards are a tool to monitor the effects of fisheries restrictions on livelihoods and ensure minimal harm comes to households that were impacted by the project. Through negotiation with these vulnerable households, a buffer zone was created along the no-take zone where they would be allowed preferential access for subsistent fishing using prescribed gear. In return these households would guard the no-take zone and alert the patrol team members of illegal fishing. The list of households who were eligible for this safeguard was included in the management plan of the fish conservation zones and reviewed periodically.

Results and successes

A management plan was developed for each community conservation area. Under the plan individual community fisheries patrol teams were established to patrol individual areas. In late 2014, two years after the implementation of the first three FCZs started, the local communities decided to add two new FCZs, having determined that the long-term benefits of creating more FCZs would exceed the initial cost of closure to local livelihoods. This later evolved into a collaborative patrol arrangement were teams worked across all five areas. On the ground the teams worked with local Ministry of Environment rangers and were supported by commune authorities. Provincial Fisheries Cantonment and Department of Environment provided legal and administrative support. In an effort to generate sustainable finance from local sources, different communities implemented a range of viable local initiatives including negotiating with local savings groups, other local livelihood groups, and ecotourism services for financial contributions to help cover patrol costs. Some communities negotiated with their commune chief to allow for the collection of fees from non-CFi members who fish in their area. However, whilst this was a successful source of funds this activity it needs to be included in the relevant laws for adoption by other CFi. Commune chiefs were instrumental in authorizing monthly patrolling across the whole of each fish conservation area as well as providing ad-hoc support for gasoline when needed by patrol teams.

Notable successes were:

- *Community proposed conservation sites*. When the project began in 2011 the project team facilitated the site selection process with communities and other stakeholders, which resulted in the selection of the first three sites. By 2014 two additional sites were selected by community initiative. A number of communities came up with their own proposal and presented their cases to the project and other stakeholders. They jointly evaluated several proposed areas and selected two as suitable conservation areas. Their selection criteria included: presence of endangered and unique species; accessibility; provision of fish spawning and feeding grounds; intact flooded forest; complementarity among sites; presence of an active CFi; appropriate size; and significance to local livelihoods.
- *Participatory planning and agreement on management*. After the communities had agreed on the general location of each conservation area extensive discussion was needed to determine

the exact boundary and management regime. This was needed as each conservation site would disproportionately affect different households in the community. As a safeguard, communities identified households most affected and in the management plan provided them with special preferential access to the buffer zone of the conservation area.

- *Joint community paroling across sites*. Initially each CFi patrolled their own conservation area. These patrol teams were generally small and there was limited communication and interaction between separate CFi patrol teams. Patrolling success varied between CFis as patrol teams differed in size, skills and resources. By joining together, the larger patrol teams could deal with larger and often confrontational offences as the larger team provided safety in numbers and gave members greater protection. The joint teams could also patrol more strategically, deploying their team members to where they were most needed. On occasion larger multi-stakeholder patrol groups were also formed which comprised not only CFi members, but other external people.
- *Community networking* developed into a formal district and provincial community fisheries network. The concept operated at three levels: (i) Each site's CFi patrol team met monthly and reported on progress made and challenges encountered in the previous month and their plans for the coming month. This meeting also provided an opportunity for the team to discuss how they could improve their patrolling and ideas and issues to raise at a higher level. (ii) Quarterly management committee meetings were held which convened all of the CFis participating in the project, which comprised active members, selected general members and other management committee members. This provided an opportunity for CFi members to raise their concerns and interact with the wider management committee. (iii) A twice-yearly meeting was held at the Provincial level and involved all participating communities, the management committees, other NGOs active in the area, Commune, District, Provincial and National level authorities, provincial Department of Environment and Fisheries Cantonment. These meetings were facilitated to hear progress, challenges, lessons, and also receive presentations from technical experts from the FiA, NGOs and CFi representatives from similar projects on the Tonle Sap lake. These meetings provided a forum for the community to raise concerns about developments with the potential to impact on their environment and livelihoods to the government. This process was harmonized with other projects implemented in Stung Treng by CEPA, CED and CRDT, to allow their communities and stakeholders to participate. This provided a platform for much greater sharing of relevant experiences.
- *Mobilization of local resources to assist community patrolling*. In building ownership over their management activities each community contributed to the patrolling in different ways. These included providing labor to build outposts; using their boats for patrolling; contribution of membership fees; financial contributions from savings groups; aquaculture groups; eco-tourism initiatives; and fees collected from non-CFi members. In addition, the commune authority also helped by providing engine fuel for patrolling on an ad-hoc basis, while the provincial Department of Environment helped with administrative clearance for communities to use confiscated boats for patrolling.

These successes depended upon close collaboration between local communities and rangers, and the support of local authorities and government departments. Engaging stakeholders early in the planning process made everyone aware of the projects benefits and challenges. At the beginning we clearly defined each projects scope; what it would and would not cover; and contributions needed by each stakeholder group, including the community. The local community members and authorities contributed their time and resources for implementing the CFi activities on a voluntary basis and did not receive

direct monetary compensation from the project. Establishing these principles early made it easier for communities to commit themselves to each project. Once engaged, stakeholders generally remained involved throughout the project. They participated in meetings, lesson and information sharing events and other activities which aligned to their mandate and ability to provide support. For example, selected commune councilors and village chiefs were involved in the patrol team and in awareness raising activities. Department of Environment and Fisheries Cantonment provided complementary support by responding to requests to arrest offenders and subsequent filing of court cases.

Challenges and solutions

Both projects faced numerous challenges which were addressed by a variety of novel solutions. A consistent set of community members may not be available for long-term engagement. Community members may be unable to participate as they may leave the community to seek work or be involved in farming activities (often recently cleared agriculture lands) far from their villages. Thus, it is important to engage a larger number of community members than is strictly necessary to be trained, and take part in, patrolling and other activities. Whilst engaging young people is important for the longevity of the conservation areas it is not always successful as they are often less interested, and they are more likely to leave the community to seek work. In some instances, active CFi group members were recruited by the Department of Environment to become rangers. And although this new association gave them a higher profile and greater power, they often received assignments from their supervisors located far from the project site, which compromised their engagement with the CFi patrol team.

The nature of illegal fishing was observed to change during the project period. It evolved from individual offenders operating from small and slow boats, to large groups of 10 or more fast boats. Often, illegal fishers used explosives. A common practice involved an individual who detonated the explosives and then left before collecting the dead fish, which were collected by others waiting a safe distance downstream. These larger groups presented a challenge for small community patrol teams and prompted the development of larger combined patrol teams. These teams were made up of several CFi patrol teams which could patrol more systematically and respond more effectively when confronted with a large group of offenders. However, offenders often carried weapons, either locally made or automatic rifles. On one occasion a team member was injured while trying to arrest a group of offenders. On another, in retaliation for confiscation of boats and illegal fishing gear, a patrol member had his boat sunk and his farm house set on fire. Responding to such offenses was difficult as they often occurred at night and the strong water currents created an additional risk. One of the strategies adopted by the patrol teams to deter offenders was to let them know they were present. Also, they did not confront offenders unless it was safe to do so.

Whilst patrol teams developed their own channels to receive tip-offs on illegal fishing, we believe it was highly likely that illegal fishers had informants within the multi-stakeholder patrol group. We learnt that multi-stakeholder patrols were less likely to encounter illegal fishers. We believe this to be a result of illegal fishers being pre-warned rather than detecting the team while they were actively patrolling. Unfortunately, little could be done about this problem. And we believe that wider engagement with the process was beneficial, even if the multi-stakeholder patrols were less successful. However, as a counter measure the multi-stakeholder patrol team agreed that only one phone was to be switched on for each boat. And in addition to the multi-stakeholder patrols, communities still organized their own patrols which were undertaken individually or as combined CFi groups.

Joint patrolling across sites increased costs, particularly related to gasoline. This was problematic as communities lacked the resources to cover even regular patrols. To accommodate this patrol frequency was reduced and resources reserved to respond to calls from informants. The teams also adopted an approach where they kept a large strategically located reserve team that could assist a smaller active patrol team if needed.

Lessons

Local community members who participated in conservation activities, particularly patrolling, said that their engagement was from their heart since access to protected resources was also enjoyed by others. However, an ineffective governance regime hindered community involvement. Communities generally wish to see an immediate end to illegal fishing, but this cannot be achieved by CFis alone. Official law enforcement effort is needed but it can be difficult to obtain this support from under resourced government officials. Without seeing a noticeable reduction in illegal fishing communities find it difficult to justify spending scarce funds on fisheries protection activities. To improve community support for conservation we recommend establishing a strong connection with a complimentary livelihood improvement project which would provide additional leverage to incentivize the community's participation and contribution.

When communities do not have stable or long-term project support their own financial contributions, although small, are important in maintaining a minimal presence in the field. This presence, though small was still believed to keep some offenses at bay. The communities affirmed that giving up their activities just because the project ended would be a loss of their investment in time and effort and would render the risks they had taken as worthless. While a few local income generation activities, such as three ecotourism ventures, were independently initiated during the project period, concerns were expressed that they often end up benefiting elites rather than the community as a whole. Building a firm legal grounding for such initiatives is needed to ensure that income is reinvested back into resource protection. We believe that for future projects local income improvement activities should receive equal, if not more, emphasis than the conservation component.

Conservation and development projects need to be undertaken to ensure that the incentives provided do not distort local conditions and compromise other projects. Whilst community members do not always ask for direct benefits from a project to which they contribute, they can become very sensitive when others who were not involved obtain benefits.

We advise that future projects contain both conservation and livelihood improvement aspects and that the same people are involved in both components. This, as best as possible, will ensure that by meeting peoples immediate needs through the livelihood component people will be more motivated to become involved in the conservation work. When livelihood improvement and conservation projects are designed and implemented by different organization on a different schedule, opportunities for communication are missed. If projects are implemented by different organizations, we recommend implementing the livelihood improvement and conservation aspects as two reinforcing components.

The lessons from this project can be replicated in areas where communities have exclusive access to a resource. In particular they can adopt the patrolling model to deter others from violating their rules and to collect fees to cover their costs.