



**Regional Fisheries Livelihoods Programme
for South and Southeast Asia (RFLP)**

Case study

Facilitating co-management in Cambodian Community Fisheries – the RFLP experience

Overview



The Regional Fisheries Livelihoods Programme for South and Southeast Asia (RFLP) Cambodia worked to improve fisheries resource management through various co-management mechanisms. Activities implemented included, participatory consultations to improve resource management, capacity building for Community Fisheries (CFis) members and Fisheries Administration (FiA) staff and the provision of monitoring, control and surveillance tools and equipment. This case study summarizes the approach taken by RFLP with regards to its co-management activities in Cambodia.

Key lessons learned

- Community Fisheries Area Management Plans are important planning documents, helping Community Fisheries fulfill their function and become legally recognized; however generating funding for actions contained in these plans is a considerable challenge.
- Regular monthly meetings between Community Fisheries and the local authorities are a simple activity that delivers great benefits as they form the foundation for trust, collaboration and dialogue.
- Although communities and the local authorities have had some success in reducing illegal fishing countering larger-scale illegal fishing remains a serious issue.

Context

In collaboration with its national government counterpart, the Fisheries Administration of the Ministry of Agriculture, Forestry and Fisheries, RFLP operated in 15 Community Fisheries (CFis) in Cambodia's four coastal provinces. Of these, six CFis were in Preah Sihanouk Province, three in Koh Kong, four in Kampot and two in Kep.

Co-management is not a new concept in Cambodia however power delegation and a more effective transfer of authority from the FiA to CFis was needed. This was facilitated as a result of RFLP operation.

Initiative

RFLP worked closely with the Fisheries Administration (FiA) and Community Fisheries (CFis) to improve resource management and enhance fisher community livelihoods through various initiatives.

Regarding resource management, RFLP worked with key stakeholders to facilitate important achievements such as:

- The development of 15 Community Fishing Area Management Plans (CFiAMP) (one for each CFi). These plans formed the basis for co-management efforts as well as community development relating to the other RFLP outputs.
- The development of conservation areas in community fishing grounds.
- Introduction of monthly and bi-monthly meetings in all 15 CFis between community members and FiA officers in order to discuss fisheries management issues.
- Installation of concrete anti-trawling devices in five CFis.
- Piloting of community catch monitoring.
- Strengthening of crab bank systems.

- Installation of sign boards at all 15 CFis to show where the community fishing grounds were.
- Introduction of joint patrols between FiA and CFi members.
- Updating of CFiAMPs for 6 CFis namely Chumpou Khmao, Banteay Brey, Koh Kchang, Chroy Svay, Trapaing Ropov and Trapaing Sangkae (2013-2016).



A patrol boat provided by RFLP in action.

In addition RFLP conducted the following activities:

- Conducted training on effective communications and gender mainstreaming in fisheries projects for fisheries officers. The training was attended by 35 participants (12 women) and 40 participants (14 women) respectively.
- Conducted four training courses for CFi committees and members and district FiA staff on: (1) report writing, minute taking and administration work - 34 people were trained (3 women); (2) leadership, facilitation skills, and proposal writing, - 34 people attended (4 women); (3) catch monitoring attended by 34 people (3 women); and (4) gender in development and mainstreaming in CFiAMPs - 34 people trained (14 women).

- Conducted training on project planning and evaluation for 23 FiA officers (2 women).
- Conducted training on marine resource surveying for FiA officers - 12 (all men).
- Conducted training on mangrove ecosystems for FiA staff and fisheries officials from other RFLP countries . 22 people were trained (1 woman).
- Conducted training on fisheries legislation; marine biology and ecology; and gender for 15 CFis; as well as a study visit to successful CFis in Tonle Sap. 992 people were trained of whom 580 were women.
- Organized six monthly progress workshops for CFis. 107 participants attended the workshops of which 23 were women.
- Organized training on mangrove health and ecosystem for CFis, delivered by FiA staff. 88 participants attended of whom 26 were women.
- Organized training on leadership and facilitation skills for CFi members. 138 people were trained of whom 57 were women.

Also, RFLP provided important equipment to CFis and FiA to improve their patrolling capability and practices. Equipment provided included:

- Monitoring control and surveillance (MCS) tools for CFis (i.e. 9 wooden boats, 4 forty horse power (HP) fibre-glass speed boats to CFis, 15 binoculars, 15 cameras, 30 ICOMs, 75 life jackets).
- Four sets of Scuba equipment "Scubapro" (Dive sets, tanks, masks, snorkel, fins, weight belts, lead large/small pieces, wet suits and accessories and three sets of underwater cameras and their housings) were handed-over to the Department of Fisheries Conservation of the Fisheries Administration.



Anti-trawling device installed by RFLP

Impacts/Results

The Development of Community Fishing Area Management Plan (CFiAMP) for CFis

Consultation workshops on the development of Community Fishing Area Management Plans (CFiAMP) were conducted in all 15 CFis from 11 July to 10 September 2010. In all 583 stakeholders (146 women) participated in the consultation workshops. Through the input of RFLP, the plans were also modified to better reflect the wide range of actions affecting the livelihoods of community members.

The CFiAMPs supported by RFLP include a comprehensive overview of the background, resources, activities and aspirations of the Community Fisheries. They include data on inhabitants and their occupations, the size of the fishing grounds, fisheries resources, fishing activities, gear types in use and annual catches.

The plans also set out how resources will be managed through activities such as the

establishment of conservation areas, the planting of flooded forest or the restriction of the use of particular fishing gears.

Mr. Liv Sophal, Vice Chief of CFI Trapaing Sangke, Kampot Province reported that: "The Community Fishing Area Management Plan is like a compass that provides us clear direction for the implementation of community work. This plan responds to the needs of community members and it will be integrated into commune investment plans this year."

Monthly/Bi-monthly Meeting

Before RFLP started to implement its activities, Community Fisheries members and Fisheries Administration staff would never meet or discuss resource management issues with each other. They did not collaborate with each other and worked alone. This led to an increase in illegal fishing activities which resulted in a decline in fisheries resources including mangroves. The monthly/bi-monthly meetings also helped to track progress of the implementation of Community Fishing Area Management Plans (CFiAMPs).

Recognizing of the lack of collaboration between CFis and FiA, RFLP supported holding monthly meetings for all 15 CFis.. The work was mainly facilitated by the FiA Cantonment with the active participation of the CFis and commune councils.

In 2011, 120 monthly meetings with 15 CFis were held (8 meetings for each CFI). These meetings saw 765 people (173 women) participate in Preah Sihanouk, 396 people (16 women) in Koh Kong and 567 people (93 women) in Kampot and Kep provinces. In 2012, 52 bi-monthly meetings with 13 CFis were held (4 meetings for each CFI). These meetings saw a total number of 1,200 people (425 women) participate.

The nature of the monthly meetings was simple. Firstly, it was used to form a foundation

of collaboration between CFis and the local authorities. It helped the CFis to monitor the progress of their activities set out in the CFiAMP with the assistance of commune councils and FiA. It also allowed CFis to report the activities conducted in CFis on a monthly/bi-monthly basis to FiA and the commune council verbally. In addition, the meetings were used to gather and discuss data such as the number of boats, gears being used, number of patrols carried out, to report illegal activities, accidents at sea, post-harvest and other livelihood activities.

Monthly meetings supported by RFLP have facilitated regular and direct interaction between the communities, commune councils and the Fisheries Administration. One of the benefits of this improved working relationship has been better collaboration when confronting illegal fishers.

Every CFI highlighted the improved trust, collaboration and relationship they were having with the FiA through their regular attendance at the meetings. Most CFis reported that previously the FiA never visited the communities but now they were regular visitors and were helping them to solve CFI problems.

Mr. Sao Thieng, Chief of CFI Chumpou Khmao, is very thankful to RFLP as it helped to improve the collaboration with the authorities – not only the Fisheries Administration but also the commune chief. He further added that RFLP always invited FiA officers and commune chiefs and commune councils to take part in all its activities in the community which means that RFLP has helped to bring about all key stakeholders to meet and hold dialogue on a regular basis, through monthly meeting/bi-monthly meetings; therefore relationships and collaboration has been fostered.



Bi-monthly meeting in CFI Trapaing Sangkae

Project counterparts have been more active and have visited the CFIs regularly to help implement CFI activities and solve problems encountered. They now have a better and closer relationship with CFIs. For example, FiA staff at the triage level in Preah Sihanouk Province, played an important role in bringing about change and reform in the savings group management structure in CFI Boueng Raing and the fermented fish group in CFI Banteay Prey. This indicates links across RFLP thematic outputs. Collaboration with regards to joint patrols has also been much improved.

Mr. Samreth Keila, Chief of the FiA Triage said that, "The chief of Chumpou Khmao CFI called me to inform that there were illegal fishing activities in their fishing ground, and he asked for my help to combat the activities. Along with the patrol leader of CFI Boeung Raing I urgently went down there with the RFLP speedboat that was given to CFI Boeung Raing by RFLP and we successfully combatted the illegal activities. Gear was confiscated (both boat and 20 sets of push nets)."

Increased women participation

The increase in the number of women who attended the meetings from 16% in 2011 to

35% in 2012 is a result of RFLP's efforts to promote women's participation in co-management activities. This also gave women a better chance to familiarize themselves with the meeting format and share their ideas with the men. Women were reported to be more involved in CFI activities including their participation in meetings, workshops and training and especially in livelihood activities such as chicken rearing and the fish sauce group. In the meeting, women were active and able to discuss things with men and the fisheries officers. Women also reported the statistical data on patrol records, crab bank activities, and livelihoods activities in the meetings.

Improved resource management structure

It is reported that the monthly/bi-monthly meeting helped to strengthen local institutions through participatory planning. CFI committees and members meet each other more often in a formal setting with a proper agenda. The CFIs were able to develop plans and implement activities with advice from the commune council and FiA given during the meeting. Improved report writing skills, patrolling practice, communications have been acknowledged by the CFIs.

Boundary Demarcation

With the approval of the CFiAMPs, RFLP has helped its target CFIs to become officially registered through the process of legal document development. Of the 15 CFIs that RFLP worked with, six were officially registered and recognized by the Ministry of Agriculture, Forestry and Fisheries (MAFF) in 2010, three in 2011, three in 2012 and one in 2013.

"CFI Trapaing Sangkae was officially registered with MAFF on 14 March 2011 as a result of finalizing its CFiAMP which was supported by RFLP. The arrival of RFLP presented opportunities for the CFIs to work closely with FiA Cantonment. As a result, FiA Cantonment

helped to move along the process of registration which appeared unlikely prior to the arrival of RFLP,” said Mr. Sim Him, chief of CFI Trapaing Sangke.

RFLP also provided each CFI with a signboard to display its demarcated fishing area boundaries and to act as an officially recognized symbol of the status of the CFI.

Patrolling

Through the implementation of monthly/bi-monthly meetings, concrete actions on patrolling took place. This has resulted in better resource management at ground level, better patrol practice and an increase in perceptions of resource status. Four speedboats, nine wooden boats and other MCS tools provided by RFLP were effectively used for patrolling and cracking down on illegal activities.

CFI Trapaing Sangke, Kampot, is very thankful to RFLP for providing a speedboat and other MCS tools as it helps them to reduce the illegal activities in the village. Mr. Sim Him, Chief of CFI told RFLP that, “The speedboat could really help to reduce the illegal activities as violators know that we have it. It is fast and we can chase them easily.” (March 2013).



Training on patrol recording in CFI Trapaing Sangkae, Kampot

With project support, CFIs were able to conduct joint-patrolling with FiA. This had never before taken place. Thereafter, training on strengthening of the patrolling unit and monitoring of fish catch took place. Co-patrolling was conducted by CFI members and FiA officers 6 times per month. As a result of this training and the regular meetings, patrolling groups were restructured leading to better patrolling performance.

Co-patrolling helped protect community fishing areas and prevented unexpected accidents or confrontation with offenders which can happen if CFI members conduct patrolling by themselves. The numbers of arrested illegal fishing cases decreased from 123 in 2011 to 45 in 2012 indicating the effectiveness of patrolling.

Illegal fishing activities in CFI areas were regularly reported at the regular monthly meetings. FiA provided good comments and feedback to help the CFI patrol teams to improve their patrolling practices.



Illegal gear confiscated by CFI Chumpou Khmao

In 2011, 64 illegal fishing activities were countered and reported in the monthly meetings. In 2012, 54 cases of illegal fishing activities were countered and gear/equipment confiscated by fisheries officers and CFI members and reported in bi-monthly meetings.

Installation of anti-trawling devices

In addition to the regular patrols, concrete anti-trawling devices were also installed to stop illegal fishing activities. Consultation meetings on the development of conservation areas were carried out with 11 CFIs and saw the participation of 236 stakeholders (24 women). As a result, five conservation areas of six CFIs in Preah Sihanouk, Kampot and Koh Kong provinces were selected for the installation of anti-trawling/push net/clam dragger devices. 420 anti-trawling devices such as concrete poles and concrete cubes were deployed in the five community conservation zones.

The anti-trawling devices have helped to destroy illegal fishing gear and made it difficult for the illegal trawlers, push nets and clam/blood cockle dredgers to operate. CFIs claimed that cement poles installed have contributed to destroying illegal fishing gear and also acted as an artificial habitat for marine resources. Therefore, they have asked the local authorities for the installation of more poles in conservation areas.

In 2011, ten illegal fishing nets were reported to have been destroyed by anti-trawling devices installed by RFLP at the Bek Krang-Chumpou Khmao community fishery (CFI), Prey Nub District, Preah Sihanouk province. Also, in CFI Koh Rong Sanloem (Preah Sihanouk), one trawler was caught while operating inside the deployment zone and its net completely destroyed.

Mr. Em Phea, vice chief of FiA division of Prey Nub said, "I got a phone call from fishers in Trapaing Ropov and Koh Kchang village telling me that their fishing gears had been destroyed by the concrete blocks and asking me to put up a sign so that they could easily recognize and avoid entering this area. I told them that they had used illegal fishing gear in the first place and were not allowed to fish this way even outside this area."

Mangroves plantation as part of the CFIAMP implementation

RFLP trained 88 people of whom 26 were women on a hands-on field training course on mangrove ecosystem health to improve participants understanding about the importance of mangrove protection.

Mr. Soun Piseth, a teacher from Chikor Krom Secondary school said, "I learned from the training that mangrove ecosystems are very important for our community as they are a key habitat for aquatic resources. They also help to protect us from heavy storms and wind and prevent soil erosion. I explained the benefits of mangrove planting to my students and they agreed to attend this planting event."

Following training, a practical assessment of mangrove health was conducted in four CFIs namely CFI Chumpou Khmao, CFI Banteay Brey, Preah Sihanouk CFI Trapaing Sangkae, Kampot, and CFI Koh Kchang, Koh Kong. In addition, 8,000 seedlings were planted by the participants in their respective communities.

Mr. Chan Sophy, Head of Fisheries Administration Triage said, "This mangrove planting activity sends a key message to all fishers and other villagers in the Community Fisheries to inspire them not to cut down the mangroves. Their livelihoods strongly depend on them and by conserving mangroves they are protecting their own lives."

Resource status and the availability of fish resources

Though, it is too early to say, the CFIs perceive that some resource recovery has taken place as a result of anti-trawling device installation, together with other CFI activities including regular patrolling and mangrove protection.

Ny Va, Patrol team leader of CFI Thmor Sor reported that there had been an increase in catch following the deployment of 200 cement poles. Previously fishers had only been able to catch about 2-3 kg of blood cockles whereas now they were catching 6-8 kg. He is seeking for

additional support from RFLP to install more poles so that illegal trawlers cannot operate in other open areas (April 2012).

Other anecdotes include:

Paul Ferber, Director of Marine Conservation Cambodia (MCC) based in Koh Rong Sanloem, said, "After trawlers come through there is nothing left but sand. The Community Fishery installed 42 concrete blocks about 100 meters apart in the community fishing area and after six months they have made a big difference. There are already signs of significant habitat regeneration. The situation is not perfect, but it is so much better than it was."

In addition, through the implementation of the crab bank system, fishers also perceived that there had been an increase in swimming crab stocks. Although, there is no scientific data to prove this, fishers have reported seeing many juvenile crabs swimming in their fishing ground as well as increased daily catch.

With reference to the catch monitoring pilot supported by RFLP in 2011 and 2012-13, average fishing times were around 10 hours per trip, with average catches of 8 kg and 10 kg in 2011 and 2012-13 respectively. However the data series is too short to make any accurate conclusions at this point as to whether this positive trend in fisheries resources is as a result of RFLP activities.

Government commits to maintain community based catch monitoring

RFLP Cambodia contracted the Fisheries Administration to oversee a two year survey of inshore aquatic product landings by a team of fishers. The first pilot started from April to November 2011 and the second pilot started in June 2012 and ended in March 2013.

The activity was conducted in order to increase the knowledge of FiA officers and fishers on catches, species composition and sizes. This is considered key for the proper management of

inshore fisheries resources for fisheries co-managers both communities and the fisheries administration.

Field data collectors in five Community Fisheries (CFis) were selected to record details of their catch by species and effort by gear. In all, 50 CFi members were trained on how to use logbooks for the recording of their daily catches. However only 26 were selected to record the catch, of whom 5 were women.

The findings from 2011 were approved by Director General of Fisheries Administration and were used as baseline data for the Fisheries Department of Planning to estimate the total catch landed by small-scale coastal fishers. The Fisheries Administration has committed to continue this approach and to maintain the catch recording system.



Long tailed traps confiscated in CFI Chumpou Khmao, Preah Sihanouk

Lessons learned

- Co-management is not a new concept in the Cambodian context; however the process of co-management takes time and resources to achieve best results.
- Improved resource management practice plays a significant role in enhancing local livelihoods as more catch is available and is captured using more selective and ecologically and environmentally friendly fishing gear.

- CFIAMPs are very important planning documents for CFIs and must be updated and approved by the concerned stakeholders. By having CFIAMPs, each CFI receives legal recognition from the Fisheries Administration at all levels. The CFIs can then use this document to seek funds from related donors for managing their fisheries resources. Some of the activities in the CFIAMP have been implemented by Commune Councils and NGOs as well as RFLP.
- Restrictions on gear size and season have yet to be implemented by fishers. Community Fisheries Zones have been clearly defined, but demarcation at sea has yet to take place. In addition, most CFIs do not have their own funds to implement the CFIAMP; they still rely on donors and the Fisheries Administration.
- Illegal fishing is reported to have been reduced as a result of RFLP supported patrolling. However, the Fisheries Administration and CFI still find it hard to combat illegal activities run by powerful people.
- The FiA Cantonments need to assign the right people to implement project activities at the ground level (i.e. the facilitator of the monthly meetings should be those who have the authority to immediately solve problems).
- The implementation of any initiative at the local level requires the active involvement of the local authorities.
- The crab bank initiative has been seen as both a stock and livelihoods enhancing activity. However, the release of crabs into the cage alone is not enough to increase the stock. Regular patrolling and mangrove protection is also required.
- Training on mangrove health and ecosystems has been well received by both FiA staff and fishers. It has

provided opportunities for CFIs to bring and contribute their traditional knowledge into research work that is normally conducted by scientists. This has helped strengthen the collaboration between CFI members and fisheries officers.

- Catch monitoring is a management tool allowing the fisheries administration to evaluate progress of the community fisheries development. The form for recording catch data was simple and applicable; however fishers complained that it took a lot of time to measure the lengths, and weights of the samples.
- Recording daily catch takes time as the enumerators must do it every day. So a monetary incentive would be the main factor in facilitating this program. However, without incentives, fishers may not record daily catch properly leading to the generation of inaccurate data. The cost of implementing this program could be significantly reduced if provincial fisheries officers were assigned to do it.

Conclusions

Strong emphasis was placed on co-management related activities as they formed a foundation for collaboration between the two main actors – the Community Fisheries and the Fisheries Administration.

The improved capacity of CFIs forms the backbone of the improved co-management process. CFIs need to be able to negotiate for their legal rights to protect their resources and their communities especially with regards to combating illegal fishing. Illegal fishing activities are still a major concern for CFIs and the FiA and effectively addressing these issues remains difficult. Through the implementation of monthly/bi-monthly meetings as well as assistance to improve and re-structure patrolling teams, RFLP has achieved its objective of establishing and maintaining co-

management mechanisms for sustainable utilization of fisheries resources.

The implementation of RFLP actions has shown that incentives play an important role in mobilizing people to join project activities. It was made clear that being a CFI member was the major criteria for them to participate in project activities. This has helped to foster the image of the CFI and increased participation from others as the CFIs were seen as helping to deliver benefits for their members. As a result, the capacity of CFI members to manage community fisheries improved significantly. However, only small numbers of CFI members had the opportunity to attend training courses and only CFI committee members were fully active in implementing RFLP activities.

Assisting CFIs to develop and have CFiAMPs approved was an excellent accomplishment. As CFiAMPs and conservation area plans are approved by the Fisheries Administration, it gives CFIs a better opportunity to seek financial support from other NGOs partners, donors and commune councils to continue project activities. In addition, these CFiAMPs have helped 13 CFIs to be legally recognized by the Ministry of Agriculture, Forestry and Fisheries (MAFF).

Monthly meetings and bi-monthly meetings were held regularly. This provided the chance for CFIs and fisheries officers to engage in dialogue as well as to build relationships and trust. These meetings were also used to report fish catches, illegal activities and other issues in the CFI. In addition, they helped to build capacity of CFI in catch monitoring, recording/reporting, and to monitor CFI activities. However, some of the CFI concerns raised during the meetings were not solved. The CFIs also reported that the minutes of the meetings were kept by the FiAC and they were seldom given a copy of the minutes.

The crab bank scheme operated successfully, but is likely to be fragile unless benefit sharing

and transparent management are ensured. Support to crab banks should be given to increase the capital of the groups as the loan type system was proved to be economically sustainable, while the system to purchase crabs was not.

Recommendations

- FiA Cantonments should continue to hold monthly meetings with CFIs using its own available resources and structure.
- FiA Cantonments should update all the CFiAMPs for the 9 CFIs from which support from RFLP was cut in late 2012, so that the CFIs can use the plans to seek financial support from other agencies and donors.
- FiA Cantonments and Central FiA should provide support to CFIs to install more anti-trawling devices and artificial reefs in their conservation zones.
- The impact of the anti-trawling devices should be monitored using trained staff and project equipment (scuba diving).
- FiA Cantonments should monitor the use of wooden boats and speed boats and other MCS tools delivered to ensure that equipment is maintained and effectively used.
- FiA Cantonments should conduct on-going monitoring and evaluation of the project activities such as the rice bank groups, the fermented fish group, the women's fish sauce group, and the chicken rearing group as well as the community fishing dock. There might be a risk of failure if on-going monitoring is not conducted due to conflict of interests within groups.
- Crab bank systems should be maintained by the FiA Cantonment through the provision of on-going support to the relevant CFIs.
- FiA Cantonments and FiA Central should work with the two CFIs in Koh Kong in

order to get them officially registered at MAFF.

- On-going capacity building for CFI committees on leadership and communication are crucially important for the effectiveness of CFIs management.



Wooden patrol boats provided to nine CFIs

This case study was written by Wirya Khim, RFLP Cambodia M&E Officer with input and editing from Steve Needham, RFLP Information Officer, and Don Griffiths, RFLP Chief Technical Adviser.

About RFLP

The Regional Fisheries Livelihoods Programme for South and Southeast Asia (RFLP) sets out to strengthen capacity among participating small-scale fishing communities and their supporting institutions in Cambodia, Indonesia, the Philippines, Sri Lanka, Timor-Leste and Viet Nam. The four-year (2009 – 2013) RFLP was funded by the Kingdom of Spain and implemented by the Food and Agriculture Organization of the United Nations (FAO) working in close collaboration with the national authorities responsible for fisheries in participating countries.