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

Lessons learned notes

Ten lessons for more effective co-management in small-scale fisheries



The sharing of management responsibility and authority between local communities and government over fisheries resources can play a major role in their improvement. The Regional Fisheries Livelihoods Programme for South and Southeast Asia (RFLP) funded by Spain and implemented by the Food and Agriculture Organization of the United Nations has sought to establish mechanisms and build capacity for co-management in Cambodia, Indonesia, the Philippines, Sri Lanka, Timor-Leste and Viet Nam. This paper highlights some of the lessons learned, risks and recommendations RFLP has learned through this process.

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1. The need for an enabling environment

Just like a seed that needs good soil, water and sunlight to grow, co-management' requires an enabling environment if it is to develop and flourish. Without such an environment it is unlikely co-management processes will get off the ground or if they do, they may wither and die, often when donor support ends.

Key enabling factors/ recommendations

- Government commitment to decentralization is vital.
- There needs to be a positive and supportive policy/regulatory environment at all levels (national as well as provincial, district or village) or the political will to make any necessary changes.
- High-level support is needed from central government as well as top-level local administrative officers.
- Government commitment is backed up with allocation of resources (human and financial) at all levels.
- Key government counterparts are released full-time for the duration of any project/ programme, with specific terms of reference.
- Policy is non discriminatory against women or any other stakeholder group.



A fisher in Sri Lanka's Chilaw Lagoon

Risks

- Government reluctance to hand over management responsibilities and powers to communities.
- Insufficient political will, funding and long-term commitment.
- Local government commitment does not match that at central level.
- Lack of government funding, resources and capacity at local level.
- Changes of government or lack of a sustained policy directive can affect funding and assignment of staff.
- Changing policy or regulations at any level can be slow and difficult to achieve.

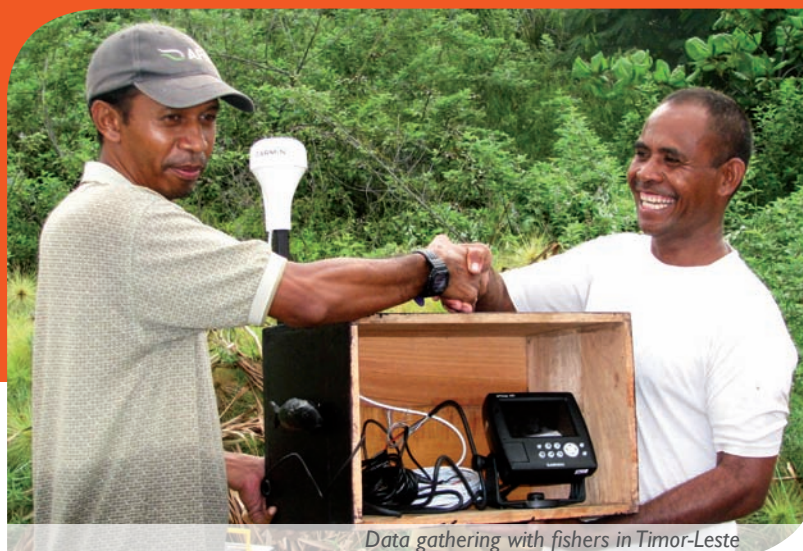
Enhancing the regulatory environment in Sri Lanka

In Sri Lanka, a committee appointed by the Secretary, Ministry of Fisheries and Aquatic Resources Development has made amendments to the Fisheries and Aquatic Resources Act No.2 of 1996 that will better facilitate co-management activities as well as the involvement of women in the process. The direct involvement of the Secretary also gave considerable impetus to the co-management process by ensuring the full and active cooperation of all departments and their staff.

1 “A partnership arrangement between government and the local community of resource users, sometimes also connected with agents such as NGOs and research institutions, and other resource stakeholders, to share the responsibility and authority for management of a resource” – (<http://www.fao.org/fishery/topic/16625/en>)

2. Relationships are at the heart of co-management

At the heart of the co-management process are the relationships between fishing communities and the government. Equally important however are the relationships within communities as well as between different levels of government (district, provincial, national etc.) and other institutions including NGOs.



Data gathering with fishers in Timor-Leste

Key enabling factors/recommendations

- Trust, transparency and honesty are the foundations upon which successful co-management can take place.
- Relationships are best built step by step over time.
- Avoid over building expectations within communities or making promises that cannot be kept, or relationships will suffer as a result.
- Communication is vital. Mechanisms should be developed that link communities, village and district governments, law enforcement agencies and other stakeholders.
- Government (including decision/policy makers) and communities should be kept aware of the positive results they are achieving as incentive for their efforts.
- Relationships can be built with communities through data gathering activities and discussion of the results.
- If progress with a community is slow do not force the implementation. If time and resources allow, pilot activities can enhance community understanding and interest in the co-management process.

Risks

- Fishers or community members may not trust government to support plans as promised.
- Government may not trust fishers and may be unwilling to hand over management responsibility.
- There may be a lack of transparency with regards to fine collection, granting of concessions, enforcement etc.
- Internal conflicts within a community can compromise co-management.
- Empowerment of fisher groups may lead to insecurity and non-cooperation from government staff.

Monthly meetings in Cambodia

Regular monthly meetings have taken place in Cambodia as part of co-management actions carried out between Community Fisheries and officers from the Fisheries Administration. These simple meetings, where progress and problems with regards to local fisheries management are discussed have given fishers and government staff the chance to know and interact with each other better. As a result, collaboration has increased in important areas such as confronting illegal fishers.

3. You need to know your fishery

Accurate and up-to-date knowledge on fisher numbers, gear types, fish landings, fishing patterns, IUU prevalence etc., in small-scale fisheries is often sketchy or simply non-existent. Fisheries administrations and communities must have a better understanding of the fishery and fisheries resources if they are to make more informed decisions on how best to manage them.

Key enabling factors/ recommendations

- Management measures should be based on scientific data and/or traditional knowledge.
- Some knowledge is better than no knowledge; simple community-based data gathering exercises (e.g. for a few key indicator species) can provide valuable information.
- Involve communities in data gathering activities to create a sense of ownership and interest. Make sure they understand why data is being collected and how it will be used.
- Gather information as an on-going activity rather than a one off.
- Incentives for data gathering may be necessary, but should be considered carefully.
- Make the data analysis available and understandable for decision makers or planners.
- Technology such as SMS, email, geo-tagged photographs, Google Earth etc., can facilitate data gathering and sharing.
- Establishment of protected areas etc., should be based on known life stage characteristics and backed up by monitoring.
- Try to value the fishery so that government, communities and potential donors (or investors) have a better picture of its worth.



Fishing community, Koh Rong Samloem, Cambodia

Risks

- Payment of financial incentives for data gatherers may impact on sustainability.
- Poor data quality limits usefulness to decision making.
- Basic equipment needed for gathering data may not be readily available.
- Data analysis does not reach those who need it (e.g. mayors, legislators etc.)
- Community members may find data gathering too time consuming.

Filling the fisheries data vacuum in Timor-Leste

In Timor-Leste, RFLP and the National Directorate of Fisheries and Aquaculture (NDFA) worked together in a wide variety of simple data gathering initiatives including: fishing effort census, fish catch and price monitoring, community mapping, community-based IUU reporting, a bathymetric survey, accident reporting as well as the mapping of dangerous places. This information was all made available through an online National Statistical System (www.peskador.org), also established with RFLP support. These actions needed relatively little financial input and relied far more on mentoring from RFLP staff and relationship building between the NDFA and fishing communities.

4. Capacity must be built at all levels



Indonesian fisheries staff learn new monitoring techniques

Co-management can be complex and involves a wide range of different subject areas and skills. The capacity of all stakeholders needs to be built as part of an on-going process to ensure that informed management decisions are made, implemented, monitored and the impacts of management actions evaluated.

Key enabling factors/ recommendations

- A capacity building programme needs to be developed and implemented for counterpart agencies/officers from the commencement of any project, based on a training needs analysis.
- Co-management can be complex; keep capacity building actions simple and understandable. Learning by doing is essential; keep abstract theory and classroom sessions to a minimum.
- Community leaders should be trained in leadership and communication skills.
- Legislators, key government appointees, or elected officials (e.g. provincial governors) need to understand the benefits that co-management can bring.
- Capacity building on gender issues should take place for both government staff and communities.
- Capacity building should be an on-going and gradual process. Mentoring rather than training is needed over a longer period.
- Fisheries department staff may have strong technical skills, but lack social capacity building experience. By involving them as trainers or resource persons, they can experience the bottom-up, participatory approach.
- Capacity means equipment too – make sure government staff or communities have the tools they need to do their jobs.

Risks

- Capacity building is attempted in a piecemeal manner and not part of any on-going strategy or programme.
- Government staff who have been trained retire or change position.
- Long delays between being trained and actually putting skills to use in the field will impact effectiveness.
- One-off training events are not followed up.
- Study tours (especially overseas) become expensive 'tourist' trips with little or no practical benefit.

Building Fishery Association capacity in Viet Nam

In Viet Nam RFLP helped establish Fisheries Associations (FA) in Quang Nam and Quang Tri provinces. As brand new organizations considerable capacity-building efforts were needed. Training was provided in the community's role in resource management, planning, and fisheries protected area development. By holding events such as fisheries festivals, FA's were able to put the basic organizational skills they had learned into practice. The provision of small seed funds (USD 500) for FA's to manage, also helped raise their sense of responsibility and confidence to manage and monitor funds.

5. Difficult decisions may need to be taken

A participatory approach to co-management with communities fully on board is vital. However at times, difficult decisions may need to be taken concerning gear restrictions, fishing closures etc. It will not be possible to please every party all of the time and on occasion ‘biting the bullet’ may be necessary.

Key enabling factors/ recommendations

- A ‘true’ co-management process that sees the full and active participation of all stakeholders, can help create a better understanding of the need for making difficult management decisions.
- Efforts made to build trust, respect and relationships between stakeholders can pay dividends when tough decisions are needed.
- Communication is vital. Make sure all stakeholders (from politicians to community members, including women) understand what is happening and why.
- Feedback. Make sure the results of any action such as a closure are fed back to those impacted.
- If communities don’t show commitment consider switching effort elsewhere.

Why do we need a 3-month closed season for sardine fishing?

Sardines usually lay their eggs and grow to juvenile stage from October to March.

If we continue to catch both adult sardines (tuloy) while they are spawning, and juvenile sardines (lupoy), we risk losing a sardine population that can reproduce in the future.

The government has banned the catching of sardines from November 1 to February 1, for a period of 3 years.

Part of a notice to promote awareness of the three-month ban on commercial sardine fishing in the waters off Zamboanga Del Norte province, the Philippines

Risks

- Difficult decisions are not made. While measures designed to reduce conflict, exclude outside competition or establish MPAs, may take place, actions to reduce fishing effort or close fisheries seldom happen.
- Tough decisions may result in public protests and political interference.
- Fishers may be unwilling to accept gear or fishing restrictions, especially if this means short term loss of income or if illegal fishers are still entering community/protected waters and using banned gear.
- Over fishing or exploitation of resources continues.

Closed season for sardines in the Philippines

In the Philippines the Bureau of Fisheries and Aquatic Resources took the decision on 23 August 2011 to impose a three-month ban (from 1 November to 1 February the following year) on commercial fishing for sardines in response to a considerable fall in stocks around the Zamboanga Del Norte peninsula. This decision was made in the face of considerable protests from fishers, and commercial canneries and bottling companies involved in the sardine industry. However, early signs point to a recovery of stocks and fishers and the industry now appears to be more supportive of the ban.

6. Traditions should be built upon

The recognition, use and incorporation of local/cultural traditions such as *Tara Bandu* in Timor-Leste or *Lilifuk* in Indonesia can play an important role in helping to facilitate effective management of marine resources. Community participation in management measures based on such beliefs may have more likelihood of being accepted, enforced and being sustainable.

Key enabling factors/ recommendations

- Traditions often form the best basis for developing management measures that are socially and culturally acceptable for resource users and (depending on the country/context) have more likelihood of success than ‘artificial’ or imposed top-down mechanisms.
- The strength of traditional systems lies in communication, consensus building, buy-in and conflict reduction.
- Traditional rules should be documented as much as possible and their formalization by the state and adoption by the communities encouraged.
- Awareness of the value of traditional systems should be raised.
- Traditional systems offer an excellent entry point to engage communities and can result in a greater sense of ownership.
- It is important however to differentiate between what is a traditional system of management (e.g. *Tara Bandu*) and what is simply a tradition (e.g. fishing with certain gears).

traditional *Tara Bandu* laws. *Tara Bandu* are used by communities to regulate relations between people and groups as well as between people and the environment. Although they have existed for a long time, *Tara Bandu* have rarely been written down. RFLP helped create an agreed written version as part of an initiative to facilitate better resource management at community level and to have *Tara Bandu* recognized by the Timorese legal system.



A *Tara Bandu* marker in Timor-Leste

Risks

- The reduction of fishing pressure or conservation of resources is often not built into traditional systems, which often evolved when aquatic stocks were plentiful.
- Local knowledge may not be enough to address externalities in the fishery, or inform the establishment of appropriate levels of fishing effort or conservation measures.
- Traditional systems may be used to overly benefit local power groups, clans or elites.
- Development (more money, better roads, transport etc.) may weaken traditional systems and make them less effective.

Traditional management systems in Timor-Leste

In Timor-Leste RFLP worked with the National Directorate for Fisheries and Aquaculture and a community in Bobanaro District to formalize its

7. Full involvement and active participation are vital



Members of a Fisheries Association meet in Viet Nam

For co-management to be effective the active cooperation of all stakeholders is needed. Efforts should be made to avoid domination by any single group, as well as to pro-actively seek the involvement of women.

Key enabling factors/ recommendations

- Efforts should be made to advocate for and encourage 'true co-management' where fishers are consulted and their views are equally represented/empowered.
- All stakeholders need to be involved or at least consulted; this may include various government departments, NGO's and the private sector. This is especially important in lagoons where management may be more complex.
- Pro-active efforts should be made to involve women in co-management activities.
- A functioning organization or governance structure within a village and its full support is vital for effective management.
- A sense of ownership of any management body such as a Fisheries Association by its members or the community is important and should be fostered.
- A major incentive for fishers to participate in co-management actions is the ability to designate/allocate fishing rights.
- When participants are creative, have ownership and are engaged, actions will be more effective.

Risks

- Effective management of marine resources is unlikely if the community is not behind its leaders or if parts of the community are excluded, even if those excluded are fishers using illegal gears.
- Women's involvement in co-management processes is 'token' without true or active participation.
- Lack of awareness of the need for gender equality acts as a barrier to women's participation.
- Changes in village leadership village or community leaders can undermine the co-management process.
- Fisheries agencies may seek to 'protect turf' and exclude other government agencies or departments.
- Government appointees dominate decision-making.

Developing Village Regulations in Indonesia

In Indonesia, RFLP supported the development of Village Regulations governing local resource management. These were developed through a participatory process involving communities and the authorities and provide the legal basis for villages to regulate and control the use of marine and coastal resources in their area. This process marked a major step in the co-management process as it directly involved fishers and other community members many of whom had never before been consulted or involved in any decision making or management process.

8. It's a slow process

Fisheries co-management is a slow process which requires considerable time and patience to develop, implement and sustain. This needs to be recognized by governments, communities and donors alike. At the same time, for community interest to be maintained tangible benefits need to become apparent fairly quickly.

Key enabling factors/ recommendations

- Sufficient time is needed for the entire process of planning, community consultation and discussions, developing tools, training, data collection, analysis etc. It cannot be rushed nor implemented to a fixed time scale.
- Inputs and resources should not be spread too thinly.
- Make sure communities understand the long-term nature of the co-management process so they do not have unrealistic expectations.
- Highlight early and associated benefits of co-management e.g. greater community coherence, access to extension services and micro-finance etc., to help maintain interest and engagement.
- Communicate benefits or successes to stakeholders to maintain their interest.
- Progress may be speeded up if it is possible to build upon earlier co-management efforts or by involving those with prior experience.



A fisher with crab traps in Kep province, Cambodia

Risks

- Overly high expectations cannot be quickly met and fisher interest is lost.
- Meetings, planning processes, data gathering and group activities may take too much time and result in loss of earnings, with few immediate or obvious results for fishers.
- Co-management efforts are not sustained when donor funding ends.

Fostering community interest in Sri Lanka

In Sri Lanka, RFLP recognized that the interest of fishing communities in co-management would rapidly fade if benefits were not rapidly apparent. As a result, a number of small-scale activities took place to foster community interest in the process. These included the removal of sunken boats from Negombo lagoon in order to enhance navigation and safety, as well as the rehabilitation of basic community infrastructure such as access roads.

9. Get the planning right

Plans for the co-management of resources can take many forms and range from the short and simple to the long and complex. They should be devised in a participatory and transparent manner and be holistic, realistic, and practical.



Developing coastal resource and fisheries management plans in the Philippines

Key enabling factors/recommendations

- Management plans need to consider people's basic livelihoods needs and not only ecological well-being.
- Resource management plans must respond to priorities and issues identified by communities and be in line with national and provincial legislation, policy and plans.
- Market forces/demands should be considered when relevant.
- Where possible seek to forge links with community investment plans.
- Clear definitions of stakeholder roles will strengthen planning as well as accountability and should be reflected in any management plan.
- Local governments and communities need constant guidance and mentoring in crafting management plans.
- Communication and awareness raising on the contents of management plans is vital (e.g. exclusive fishing zones, types of gears banned, closed seasons, etc.).
- Technologies like Google Earth, Google maps and GPS equipment are readily available and can enable the production of illustrated accurate maps which can be used to enhance discussion and understanding during planning.
- Implementation of resource management plans needs monitoring, how this will be carried out should be considered during the planning process.

Risks

- Management plans are never implemented due to budget or capacity constraints.
- Conservation measures are established without a real fishery basis (e.g. MPAs for tourism) yielding few benefits to natural resources.
- Excluding outsiders offers immediate local benefits, but does not guarantee long-term resource sustainability.
- Templates for developing management plans restrict flexibility and impact plan quality.
- Communities are not consulted over potential impacts on their livelihoods, particularly when no-take MPAs are established.
- Excessive water/buffer areas are closed to fishers.
- Protected area benefits are captured by other stakeholders (e.g. tourist operators, hotel investors, etc.).
- Commercial concerns/politics unduly influence planning processes.
- Marine zones may be poorly marked due to the high price of physical demarcation.
- Mangrove conservation does not include associated seagrass and mud flat eco-systems which are also important sheltering and feeding places for juvenile aquatic species.

Coastal resource and fisheries management plans in the Philippines

RFLP has worked closely with 11 Local Government Units in the Philippines to develop multi-year coastal resource and fisheries management plans. Areas covered by the plans include: habitat management (MPA establishment); fisheries management (licensing system); shoreline management (mangrove reforestation); enterprise and livelihoods development; waste management (solid waste); watershed management (reforestation); coastal zoning (resource use); legal arrangements and institutional development; and promoting tourism.

10. The need for effective enforcement

Enforcement efforts play a major role in the management of fisheries resources. However effective enforcement, especially at community level, can be expensive and at times dangerous. Enforcement efforts should be guided by regulations and management plans, while close collaboration between communities and authorities is vital.



Burning illegal fish traps in Viet Nam

Key enabling factors/recommendations

- Enforcement efforts need to support implementation of a fisheries management plan.
- Communication and awareness raising are important and cost effective weapons to fight illegal fishing, especially at community level.
- A good relationship between communities and the authorities is key to effective patrolling as it allows legal steps (e.g. arrests, fines, confiscation of gear) to take place.
- Clear demarcation of protected fishing areas can help reduce illegal fishing.
- Anti-trawling devices can be effective, but should ideally be complemented by regular patrolling activities.
- Diversion of penalties to communities can incentivize and help finance enforcement.
- Ownership of fishing rights helps boost the incentive for community enforcement.
- Basic tools such as walkie-talkies, cameras, GPS and binoculars can support enforcement efforts.
- The use of GPS devices can help fishers anonymously and accurately report illegal fishing the authorities to gather near real time data on incidences.
- Careful records of instances of illegal fishing, gear confiscated, fines imposed etc., should be taken to gauge the effectiveness of enforcement efforts.

Risks

- Confronting illegal fishers can be dangerous; they may be heavily armed.
- Conflict avoidance can see illegal acts which undermine management go unchallenged.
- Cost of patrol boats, fuel etc., is high and can erode patrolling efficiency and regularity.
- It may be too expensive to purchase sufficient anti-trawling devices to effectively protect a fishing area.
- Anti-trawling devices or artificial reefs act as fish aggregators which can result in higher fishing pressure unless controlled.
- Demarcating protected areas with concrete markers or buoys is expensive.
- A lack of, or slow, collaboration from the authorities can make patrolling ineffective.
- If fines from illegal fishers do not flow back to communities this may reduce the ability and incentive to patrol.

Poles and patrols in Cambodia

The deployment of anti-trawling structures such as cement poles and cubes as well as regular patrolling activities appears to be helping decrease illegal

fishing in Cambodian Community Fisheries (CFis). The deployment of the anti-trawling devices and enhanced monitoring, control and surveillance capacity for the communities formed a key part of Community Fisheries Area Management Plans developed with RFLP support. Before installing the anti-trawling obstacles, RFLP helped local authorities carry out a series of consultations with the communities on conservation area development to ensure fishers understood the reason for, and supported the installation of the obstacles.

RFLP's co-management activities

This publication synthesizes the experiences and lessons learned by RFLP from its co-management activities in Cambodia, Indonesia, the Philippines, Sri Lanka, Timor-Leste and Viet Nam.

More detailed information on RFLP's co-management activities including case studies, reports, presentations and publications can be found at www.rflp.org/co_management

Additional information on co-management for small-scale fisheries can be found on the web site of the Food and Agriculture Organization's Fisheries and Aquaculture Department at www.fao.org/fishery/topic/16625/en

Please also see the website of the Asia Pacific Fishery Commission at www.apfic.org

About RFLP

The Regional Fisheries Livelihood 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. By doing so RFLP seeks to improve the livelihoods of fishers and their families while fostering more sustainable fisheries resources management practices.



The four-year (2009–13) RFLP is funded by the Kingdom of Spain and implemented by the Food and Agriculture Organization of the United Nations (FAO) working in close collaboration with national authorities in participating countries.

For more information about RFLP, see www.rflp.org or contact steve.needham@fao.org (Information Officer)