

# New ways to manage **small fisheries**



Bringing together local people and government to co-manage small fisheries leads to higher incomes, more secure fish supplies and a healthier environment.



The co-management approach lets more groups with a stake in the fishery work together to manage the resource. It has been proven over the last decade in a wide range of small fisheries around the globe. Rather than a 'one size fits all' blueprint, co-management is flexible and takes account of local complexities and uncertainties.

This guide explains co-management and provides arguments and information that can be used to persuade groups to start co-managing fisheries. It also outlines what people need to do to put co-management in place.





Above: Fishing and agriculture compete for water resources at Pabna, Bangladesh. Co-management can help to resolve conflict to the benefit of all.  
Photo: A. Halls

## Co-management— a practical solution

**The basic idea of co-management is that fishers and people dependent on fisheries resources, as well as the government, should take part in management.** This is the only way to make sure that fishery management truly reflects local *and* national needs. In this system, resource users and government:

1. share information, and
2. take part in making decisions.

## Why co-manage small fisheries?

**Small coastal and inland fisheries are notoriously difficult to manage sustainably.**

Yet millions of rural people in developing countries depend partly or totally on these fisheries for food and an income. Small fisheries also add a lot to many developing countries' overall production and exports.

Centralised management of fisheries fails for the most part, as government data on fisheries' stocks and catches are often poor. Also, central departments are not in a position to know and understand the needs of all groups of users or to enforce regulations. Local groups, on the other hand, often do have detailed knowledge about the fish, fishers and social setting. But they are not in a position to see the 'big picture'—where the fishery fits into regional or national water resource plans or the national economy.

Partnerships between local groups and government to co-manage small fisheries offer a useful way forward, as they build on the strengths of both.

A formal definition of co-management is

'A partnership in which government, resource users and other stakeholders share both responsibility and authority to manage a specific resource'.

## How does co-management work?

**At the local level, co-management works by involving all stakeholders.** First they gather information about what factors affect a fishery and identify the main problems. Then they (or their representatives) draw up a plan to manage the fishery and put the plan into practice. They also enforce management rules, decide if the plans are working and change them if necessary.

At the national level, governments develop policies and laws that give local groups the power to make and enforce rules. Governments also ensure that policies consider national priorities and the needs of the poor, vulnerable and marginalised. Coordination is also an important role for government. Nested arrangements have proved more workable than two-tier (local and national) structures. For example, co-managed lake and catchment

fisheries 'nest' within river basin management. River basin authorities look at how local co-managed fisheries fit in with overall river basin resources. In turn, national authorities look at all river basins in the country in the light of cross-cutting issues and national goals.

## Co-management benefits lives

**Partnerships between local groups and government to co-manage fisheries have proven benefits.** Because co-management addresses stakeholders' needs and priorities it improves their lives—providing higher incomes, more say in decisions that affect them, respect for their indigenous knowledge, and a chance to learn management skills and improve their knowledge. Attitudes change and stakeholders share information. Management of fisheries improves; plus, co-management helps sustain resources and increase biodiversity.



**Above:** These Bengali fishers catch more fish from flooded rice fields now that co-management takes into account their needs, and the needs of rice farmers and government officials.

**Photo:** P.K. Pandit



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## How to put co-management in place

**Co-management builds on strengths, complementary roles and shared responsibilities.** It works best when relevant information flows freely between local and government partners.

<b>Complementary roles of local and government partners in co-management</b>	
<i>Local partners</i>	<i>Government partners</i>
Decide management plans Implement management plans Evaluate management plans	Decide co-management policy Implement co-management policy Evaluate co-management policy

So, what should local groups and government do?

### Local groups

**At the local level, co-management involves planning and implementing ways to manage a fishery.** But, rather than setting up a new group to do this, it's best to try and find an existing group to start with, perhaps a fisher group or a fisheries office. Such groups will already work within government regulations or local customs and will thus most probably have some legal or traditional rights to manage the fishery.

The main stages in co-management are planning, implementation, monitoring and evaluation. But these stages may overlap, or be done at the same time, or need to be returned to at various stages. Rather than beginning at a particular point and ending at another, co-management is a continuous cycle.

**1. Planning** means first getting a good understanding of all aspects of the fishery (physical, social, and cultural), including relevant rules and problems. Make sure all stakeholder

groups are represented and tap into their particular sets of knowledge and skills. Plus, let them express their needs. A stakeholder analysis (to find out exactly who has a stake in the fishery) is a good start and it's helpful to do this early on.



**Above:** Community management of Nam Houm reservoir in Lao PDR involved all stakeholders. Women express their needs and concerns.  
 Photo: K. Deeburee

People need to know how they will benefit as a reason for putting in effort. They also need to be convinced of the likelihood of success, especially at the beginning. Help stakeholders to identify the main problems and then, with them, work out how to collect data to help solve the problems.

Stakeholders will probably need technical help, for example tools to collect data on fish and the social and environmental aspects of fisheries (see back cover).

Once the information has been gathered on the state of the fishery, the next step is for the group to work together to draw up a management plan. This will mean settling differences and setting priorities.



**Above:** If there's already a method of collecting relevant data, use it. A village record book records the number of fishers, how much they catch, how much they sell and how much they keep for their families. **Photo:** R. Arthur

The planning process will most likely turn up gaps in the information that's been collected. So, the group needs to decide what other data to collect and to share out the responsibilities for getting it. It's vital to involve the people who will be collecting data in working out what data is needed, why it's needed and how it will be collected. If there's already some kind of system for collecting data, this could be a good starting point.



## Planning means first getting a good understanding of **all aspects of the fishery**



## How to put co-management in place *continued*



**Above:** A successful co-management partnership in West Bengal, India. Fishers (left) patrol the fishery to enforce co-management rules. Fishers and government staff (centre) work together to collect data to check on how the management plans are working. Government staff (right) analyse the data and feed back the information to fishers regularly in ways they can understand.

**Photos:** R. Arthur and P.K. Pandit

**2. Implementation** means assigning responsibilities and putting the plan to manage the fishery into action. This may involve, for example, issuing licences or stocking the fishery. It also means collecting data on these activities.

**3. Monitoring** means keeping track of what is happening in the fisheries as a result of the actions that have been taken. You do this by looking at the data collected. Are the plans working? Do they need to be changed? Plus, is the relevant information going to the right people? A map of who needs what information and how the information will flow—up, down, sideways—can help here. An important part of monitoring is to check that people carry out their tasks and report back.

**4. Evaluation** means asking 'Was it worth it?' in terms of the costs and benefits—again by looking at actual data. Often the evaluation will show that the original plan could be improved, and so the management cycle is repeated. This is

sometimes called 'learning by doing' or 'adaptive learning' (see back cover for where to find more information).



**Above:** Villagers in Moyna village, West Bengal, used participatory methods to design, plan and implement management of the fishery.

**Photo:** R. Arthur

## Government

**A government's role in co-management involves making policy and giving support.**

**1. Making policy.** Governments set up the overall policies for co-management. This means giving stakeholder groups rights to make decisions and the authority to carry them out. Policymakers may need to enact laws to give fishers property rights or rights of access. In some cases they may need to make sure the law recognises existing informal and customary fishery management arrangements. Policies also need to ensure that powerful people—groups or individuals—do not 'capture' small fisheries and exclude the poor or over-exploit the resource.

**2. Giving support.** The other main task of government is to help co-management work.

Governments provide services (such as training, extension and conflict resolution) that help communities to manage their resources and strengthen their skills.

### **Tried and tested factors for successful co-management**

Lessons learned from around the world show that for co-management to be successful the following seven principles need to be applied:

- 1.** Involve stakeholders
- 2.** Communicate
- 3.** Use local knowledge
- 4.** Adapt
- 5.** Focus on relevant information
- 6.** Empower
- 7.** Integrate

**For tools, guidelines and contact,**  
please see the back page.



A government's role in co-management involves **making policy and giving support**

## Tools, guidelines and contact

If you want to find out more, here are some tools and guidelines that may be helpful.

### For Participatory Fisheries Stock Assessment

- ParFish Toolkit: ParFish Guidelines; ParFish Software; ParFish Software Manual; ParFish Training Materials (<http://www.fmosp.org.uk>)
- FAO Guidelines on data collection for co-managed fisheries
  - Part 1. Practical Guide ([http://www.fmosp.org.uk/Documents/r8462/r8462\\_5.pdf](http://www.fmosp.org.uk/Documents/r8462/r8462_5.pdf))
  - Part 2. Technical Guide (<http://www.fao.org/docrep/009/a0231e/a0231e00.htm>)

### Contact

NR International, at [riuinto@nrint.co.uk](mailto:riuinto@nrint.co.uk)

### For 'adaptive learning' or 'learning to manage fisheries by doing'

Garaway CJ and RI Arthur. 2004. Adaptive learning: A practical framework for the implementation of adaptive co-management. Lessons from selected experiences in South and Southeast Asia. MRAG Ltd., London (<http://www.streaminitiative.org/Library/pdf/organizations/Adaptivelearning.pdf>)

## About this series

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