

# Field testing of data collection and sharing for co-management in Bangladesh

## Introduction

The UK Department for International Development through its Fisheries Management Science Programme supported a multi country project (R8285) on *Data Collection and Sharing Systems for Co-Managed Fisheries*. This was completed in 2005 and attempted to meet the growing need among fisheries co-managers (government agencies and user communities) for simple guidelines to help them design and implement appropriate and cost-effective data collection systems. The project drafted technical guidelines which drew together relevant elements of the literature, the output of previous FAO and DFID-funded research, as well as the experiences and expressed needs of co-managers currently designing or preparing to design their own data collection systems.

Based on these technical guidelines, a shorter less technical *Field Guide* was prepared and evaluated in the Lower Mekong Basin and in Bangladesh under several donor-funded co- and community-based fisheries management projects as part of an associated project (R8462) Project: *Evaluation and Uptake Promotion of Data Collection Guidelines for Co-Managed Fisheries*.

## Piloting

The field guide was piloted in 9 different sites, 5 sites of Fourth Fisheries Project and 4 of Community Based Fisheries Management project phase 2. The representatives of the fisheries community based organizations, concerned DoF staff, and NGO staff were present in the initial workshops. Here we focus on the Fourth Fisheries Project piloting along with a brief summary of the CBFM-2 experience.

| Project / partner                                                                                        | Summary findings and agreements                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
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| Community Based Fisheries Management Project (CBFM-2) / WorldFish Centre (led by Drs Mustafa and Kashem) | <ul style="list-style-type: none"> <li>Design process tested with stakeholders by means of workshops at three CBFM sites (beels).</li> <li>Between 30-50 participants at each w/s representing BS, CNRS, DoF (DFOs), BRAC, WorldFish Center, DAE, LGED and CBOs.</li> <li>Up to 18 stakeholders identified during design process as potentially having an interest in or need for fisheries data and information.</li> <li>Stakeholder roles were discussed and agreed upon by means of a voting approach.</li> <li>For each key stakeholder, information needs and reasons were identified.</li> <li>Information networks for sharing information among stakeholders were also identified.</li> </ul> |

## Fourth Fisheries Project piloting of data sharing planning and agreements

The sites and main management activities undertaken by fishing communities through plans developed with and approved by DOF:

| Local management plan includes | Tangaon River (Thakurgaon) | Masankura Mora River (Rangpur) | BSKB (Kalia, Narail) | Old Brahmaputra (Mymensingh) | Borobila Beel (Rangpur) |
|--------------------------------|----------------------------|--------------------------------|----------------------|------------------------------|-------------------------|
| Sanctuary                      | √                          | √                              | ±                    | √                            | √                       |
| Habitat restoration            |                            |                                | ±                    | ±                            | √                       |
| Fishing effort control         | √                          | √                              | √                    | √                            | √                       |
| Increased income               | ☺                          | ~☺                             | ~☺                   | ☺                            | ~☺                      |
| Closed season                  | √                          | √                              | √                    | √                            | √                       |
| Fix and collect gear fees      | √                          | ±                              | ±                    | N/A                          | √                       |
| Fix production target          | √                          | ±                              |                      |                              | ±                       |

## Summary of data collection and sharing agreements made in five FFP sites:

Agreements on data collection and sharing were made to address key issues identified through review of the existing management plans and concerns and needs of the fishers and DOF staff through a workshop where the stakeholders worked separately and in plenary:

- What impacts are there of closed season on fishers? Indicators agreed for FMC to record:
  - number of households with reduced income in those months,
  - number of households with reduced meals and how many meals eaten per day.
- DoF will collect data on level of dis-benefits to the fishers (if any) from improved management and on level of pressure on the resources.
- Locations and seasons of key habitats for fish, indicators – expert fishers of FMC to map these breeding sites for use in adjusting rules.
- DoF will assess methods of coordination and success.
- Share and compare catch and effort data collected by DOF from sample surveys and catch data collected by FMC from arat for ber jals (Old Brahmaputra), do this over next 3 months and previous 4 months. To be compared in monthly meetings between DOF staff at Upazila level and FMC.
- Fish catch – assess amount and species.
- Conduct simple household survey covering poverty/health/education, skill and IGA needs assessments.



Fishers identifying information needs in BSKB.

| Project / partner                                                                                                                           | Summary findings and agreements                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
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| Fourth Fisheries Project (FFP) / Department of Fisheries (led by Dr. Parvin Sultana with assistance from Masood Siddiqui and Zahirul Islam) | <ul style="list-style-type: none"> <li>● Design process tested with stakeholders by means of workshops at five waterbodies (river, large open beel, smaller semi-closed).</li> <li>● Between 20-30 participants at each site including Fisheries Management Committee (FMC), DoF fisheries resource survey staff and upazila fisheries officers; also NGO and FFP staff.</li> <li>● Stakeholder roles were identified.</li> <li>● Key stakeholders were identified as: the FMC, general professional fishers, subsistence fishers, local DOF staff, NGO staff.</li> <li>● Previous data collection systems were reviewed including strengths and weaknesses.</li> <li>● Information flow in the past has generally only been upward without feedback to local fisheries officers or the community or local use of data.</li> <li>● Fishers often maintain catch records but the data are not compiled, analysed or shared (project driven activity).</li> <li>● Stakeholders identified their information needs and reached agreement upon who should collect what and share with whom.</li> <li>● Agreement was also reached to compare the catch estimates generated by the FMC and the DoF.</li> <li>● Agreement was reached on which data collection tools and sources could form the basis of an appropriate data collection system.</li> </ul> <p>The FMCs and DOF in these five sites have subsequently been collecting data, and it is hoped that this is being shared between stakeholders.</p> |

### Conclusions arising from the FFP piloting and workshops included:

- The guideline was found useful by the DoF staff.
- The technical guidelines may also be appropriate for short-term projects. Data collection and sharing methods should be included in project design.
- The guidelines may be included in fisheries training and university courses.
- The field guide should be distributed to the wider community.
- NGOs who are responsible for data collection at different levels should be regarded as important stakeholders.
- Guidance on data analysis, and interpretation in the context of the management plan for different stakeholders should be included in the guidelines.



FMC leader explaining their needs to DOF officers in Old Brahmaputra site of FFP

### Most useful elements of the guidelines

- ❖ The eight stage design process.
- ❖ Guidance relating to the importance of feedback of data and information to sustain motivation among stakeholders and to ensure data quality.
- ❖ Guidance relating to the importance of justifying data needs in relation to the management objectives/plan.

### Lessons learned

- ❖ Whilst stakeholders desire similar information, acceptable data types differ limiting opportunities for data sharing.
- ❖ Data sharing is currently weak or absent.

- ❖ Existing co-management plans remain biased towards the needs and goals of the DoF and do not fully reflect those of resource users.
- ❖ Feedback to the community/enumerators is vital to maintain data quality and motivation.
- ❖ Guidelines are also useful for designing programmes to monitor project performance.
- ❖ Local communities were willing to self monitor because it helps them to determine the true value of their waterbody for negotiating on the lease cost.
- ❖ Without an active role in the evaluation of the management plan, community members are unlikely to have an interest in monitoring the fishery.