How can the information be obtained?

By using a data collection and sharing system. This is the combination of sources of data, collection methods, networks and activities that provide co-managers with the four categories of information they need to undertake the management process. These systems must be designed to support the diverse needs of a range of potential stakeholders according to their objectives, capacity, and available resources.

What Guidance is available for designing data collection and sharing systems?

A two-part set of guidelines has recently been developed to help fisheries co-managers design and implement appropriate and cost-effective systems to deliver their data and information needs. They are intended to complement, rather than replace, existing relevant manuals and guides already published by FAO.

Part I: Practical Guide has been written specifically for co-managers and facilitators working in the field and offers simple and practical advice on identifying the information needs of different stakeholders in relation to their management objectives and responsibilities, and developing collaborative ways of collecting and sharing the information in the most effective way.

Part II: Technical Guidelines provide more technical detail on each of the sections included in the Practical Guide, including examples of the types of data that might be of interest to different stakeholders, data collection methods and sources, the design of sampling programmes and some guidance on data analysis and interpretation. They provide field practitioners with an additional resource that can be referenced when necessary, but they are also expected to appeal directly to Department of Fisheries and extension staff, research agencies and academic institutions.

How can the guidance be obtained?

The Guidelines will be published in the FAO Fisheries Technical Paper series before the end of this year and circulated to Fisheries Departments of Member States. You will also be able to download electronic copies free of charge from: http://www.fao.org/fi/eims_search/publications_form.asp?lang=en. In the meantime, further information can be obtained using the links below.

This leaflet was produced by ASL, UK (www.aquae-sulis-ltd.co.uk); and MRAG, UK (www.mragltd.com). This document is an output from a project funded by the UK Department for International Development (DFID) for the benefit of developing countries. The views expressed are not necessarily those of the DFID. The leaflet was produced by Project R8462 of DFID’s Fisheries Management Science Programme (FMSP). For more information on the FMSP, Project R8462, and other projects funded by the Programme, please visit: http://www.fmsp.org.uk.
Why do co-managers need information?

Co-managers need information to be able to make informed choices and decisions concerning the co-management of natural resources. By using the best available information, co-managers are more likely to be able to make, and put into practice, policies and plans that meet the needs of the stakeholders that they represent.

Who needs information?

This depends upon who the co-managers are. Typically they will include policy makers, usually the Government, and their departmental (e.g. Department of Fisheries, DoF) staff and the local managers who put government policy into practice through management and development plans. Department of Fisheries staff might include Provincial or District Fisheries Officers whilst local managers might include the resource users themselves or a local management institution (LMI) representing their interests.

What information do they need?

The co-managers described above will need information to support the management process (Figure 1). This cyclical process involves making fisheries policy and development plans work in real life.

<table>
<thead>
<tr>
<th>Category</th>
<th>Information to...</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Formulate and evaluate national fisheries policy and development plans ...and evaluate the success of a co-management policy and meet reporting management and reporting obligations.</td>
<td>Gross value of production (GVP), fish landings, imports and exports, fish consumption, employment in fisheries sector, number of co-managed fisheries, catch per unit effort (CPUE), distribution of benefits.</td>
</tr>
<tr>
<td>2</td>
<td>Formulate make or improve local management plans</td>
<td>Fish species, catch weight or value, fishing gears and seasons, socio-economic categories and numbers of fishers, fisheries legislation and management responsibilities.</td>
</tr>
<tr>
<td>3</td>
<td>Implement management plans including enforcing rules and regulations, co-ordinating management activities and monitoring and resolving conflicts.</td>
<td>Registers of fishing units and licences, information from various local management plans to coordinate actions.</td>
</tr>
<tr>
<td>4</td>
<td>Evaluate local management plan performance.</td>
<td>Abundance or CPUE of different species, income, fish consumption, occurrence of conflicts, fishing effort, environmental factors.</td>
</tr>
</tbody>
</table>

Fisheries policy describes the general goals on how resources should be used and managed including co-management arrangements. These goals are implemented through management plans for each fishery, resource or management unit with the help of local managers. Therefore we can identify four basic categories of information that are needed to support the management process:

The co-managers will be interested in different categories of information depending on what aspects of the co-management process they are responsible for. For example, governments and their administrative levels will mainly be interested in Category 1 information and also Category 4. The latter can be used to help evaluate the performance of co-management policy. Category 2 and 3 information may also be of interest to help them coordinate local management plans or if they have agreed to help enforce management plans on behalf of the local managers. Local managers on the other hand will be more interested in Category 2 and Category 4 information.