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Lessons learned for involving stakeholders in Ecosystem-Based Management

WHY INVOLVE STAKEHOLDERS?

- Stakeholder engagement is required by environmental policy in Europe, and increasingly incorporated into biodiversity protection projects. While there are many interpretations of what stakeholder engagement means and how it can be made operational under specific institutional contexts, it is considered a prerequisite for the successful application of ecosystem-based management (EBM).

- Stakeholder engagement in the context of EBM is a multi-faceted and complicated process, because these projects typically promote multi-functionality for pursuing multiple objectives (ecologic, economic, and social). This requires: **(a)** mobilising wider groups of stakeholders as compared to traditional "sector-specific" stakeholder processes (see Mobilising stakeholders for supporting Ecosystem-based Management); **(b)** addressing explicitly trade-offs between different types of stakeholders (decision-makers, scientists and other actors) and between different policy objectives under conditions of complexity and uncertainty about interactions between EBM and the ecological and social systems.

- Overall, including stakeholders' supports more effective, efficient, and equitable management – stakeholders can help prioritise objective, provide low-cost information and expertise, and support implementation and ongoing adaptive management.

- In this brief, we highlight steps taken to mobilise stakeholders in the case studies and, through an example in the Azores, highlight some of the lessons learnt and applications.

HOW CAN STAKEHOLDERS CONTRIBUTE TO ECOSYSTEM-BASED MANAGEMENT, AND WHAT ARE THE STEPS?

The eight AQUACROSS case studies faced unique biodiversity challenges and different contexts. Accordingly, they engaged different stakeholders, and in different ways. However, overall, the following seven steps arose as the best way to involved stakeholders in ecosystem-based management.

0 **Step 0 – Agree on scope**
Before beginning the process, it is important that decision-makers agree on their broad objectives and the scope of the EBM process, and on assigned roles of scientists, decision makers, and other stakeholders.

> **TIP!** Poorly defined goals or scope can lead to disappointed stakeholders or scientists, whose unrealistic expectations cannot be met, and frustration from all sides, due to differing expectations of commitment.

1 Step 1 – Map the stakeholders

Ecosystem-based management should recognise that protecting biodiversity delivers many benefits to multiple beneficiaries. Additionally, aquatic biodiversity is affected by diverse human activities and pressures (see Linkage Framework). Accordingly, consider diverse stakeholders – including sectors like agriculture and fisheries.

> **TIP!** Consider multiple geographic and time scales to identify the relevant stakeholders. It is important to remember that there is no one scale that is appropriate – e.g. even though the Lough Erne case study focused on a relatively small lake, its biodiversity may is affected by catchment-wide agriculture, and country-wide tourism (see Case Study: Lough Erne, Ireland). Stakeholders from different scales needed to be considered.

2 Step 2 – Together, establish a shared understanding of the context

The aim of this step is to ensure that researchers, decision-makers, and stakeholders have collated as much information as possible and agree on the a general understanding of how the ecosystem is functioning, the key threats and human activities affecting aquatic biodiversity, and who benefits from aquatic biodiversity.

> **TIP!** Stakeholders have knowledge and data that can help scientists understand the social-ecological system.

> **TIP!** Stakeholder views and priorities are important to capture here, as well as those of managers/policy-makers. In the Swedish case study, general public and other stakeholders input on models supported understanding and consensus (see Case Study: Lake Ringsjön, Sweden).

> **TIP!** The AQAUCROSS Linkage Framework (see Linkage Framework) can be developed using stakeholder input and feedback, and can produce useful visual output to support understanding.

3 Step 3 – Co-develop objectives

Policy objectives (see Integrative environmental objectives) are one source of societal objectives. Stakeholders are another source, and can be additionally helpful at prioritising objectives, and balancing up between competing goals.

4 Step 4 – Identify and evaluate possible actions

Stakeholders can support the identification of practical management measures and policies to improve aquatic biodiversity protection at the same time as meeting other goals.

> **TIP!** Stakeholders are experts in their field. In the North Sea case study, fisheries stakeholders provided insight and practical knowledge to design better policies (see Case Study: North Sea). This can have the additional benefit of increasing the perception of management measures among other stakeholders, who can trust that someone representing them had a say.

5 Step 5 – Implement and monitor

In some cases, stakeholders will be the best people to implement new management measures and to monitor their impact.

6 Step 6 – Evaluate and adaptive management

After implementing new management measures, engage stakeholder to assess whether goals were met, and what can be learnt and improved. Their input is crucial for understanding the real impact of management, and for adapting it to new information.

CASE STUDY EXAMPLE – AZORES

Through interviews, workshops, and feedback, Azorean stakeholders – including recreational and commercial fishers, diving operators, environmental NGOs, scientists, and representatives of all relevant Regional Directorates – identified issues, shared their views, and provided crucial input in the design of an ecosystem-based management plan for the Faial-Pico Channel Marine Protected Area. Stakeholders provided data and expertise that improved understanding of the system. They also communicated priorities for management missed by policy-makers, including simplifying management, increasing monitoring and enforcement, and increasing environmental ambition. The Azores case study demonstrates that local stakeholders support effective and equitable management by clearly identifying challenges and priorities, co-creating solutions, providing low-cost knowledge and expertise, and through ongoing monitoring, enforcement, and evaluation of the impact of management (see Case Study: Azores).

Further information

This is one of 38 short briefs summarising the key results of the AQUACROSS Project. For more detailed information on the topics covered in this brief, see the following:

- AQUACROSS Case Studies

- Gomez et al. (2016) Developing the AQUACROSS Assessment Framework. Deliverable 3.2, European Union's Horizon 2020 Framework Programme for Research and Innovation grant agreement No. 642317. (Deliverable and Executive Summary)