Policy Brief
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IBEFish

Stakeholder Participation towards Ecosystem-Based Approaches to Fisheries Management

Taking stock of European experience

The IBEFish Project

The IBEFish Project – a Specific Support Action to the 6th Framework Programme – **synthesizes experiences with stakeholder participation in managing interactions between environment and fisheries** in Europe, as studied or experimented by a series of EU funded research projects.

This brochure presents key findings of the project

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The crisis in European fisheries management

European fisheries are severely affected by the combined challenges of overexploitation of fish stocks, and increasing competition with other uses of the sea, such as marine protected areas, wind turbines, traffic routes, pipelines and offshore drilling.

Top-down single species management cannot produce sustainability of fisheries in Europe. A shift is called for towards more participative and encompassing management approaches, such as the **ecosystem-based approach**:

> *An ecosystem approach to fisheries strives to balance diverse societal objectives, by taking into account the knowledge and uncertainties about biotic, abiotic and human components of ecosystems and their interactions and applying an integrated approach to fisheries within ecologically meaningful boundaries. (FAO[1])*

The EU maintains far-reaching regulatory competence in the fisheries, and the ecosystem-based approach to fisheries management was formally adopted in the reform of the Common Fisheries Policy (2002). However, implementation of this demanding approach is as yet far from being achieved.

Four difficulties in implementing ecosystem-based approaches to fisheries management:

- High knowledge and information processing requirements that are required for adaptive, multiple use plans for specific marine areas.
- Planning includes trade-offs between different interests and values, which cannot be done by experts but requires deliberation by stakeholders.
- In an ecosystem-based perspective, where marine areas rarely fit into the boundaries of one competent authority, coordination across the vertical and horizontal administrative boundaries is necessary for planning but also for implementing and monitoring.
- Other uses of the sea – for example, wind energy, protected areas – need to be taken account of in ecosystem-based fisheries management, which involves a wide spectrum of new actors with diverging interests, perspectives and powers.

[1] *FAO. 2003. Technical Guidelines on the ecosystem approach to fisheries. FAO, Rome.*

Stakeholder participation in fisheries

Stakeholder participation is widely recognised as a key to putting the ecosystem-based approach into practice. It brings to the fore stakeholders' different perspectives, which represent diverse uses, values and concerns.

In theory, stakeholder participation provides a fuller picture of a situation and its management options; and can lead to collaborative decision-making processes, producing management decisions which rely on the support and acceptance of many different actors.

In practice, establishing functioning structures and processes for stakeholder participation in fisheries management is a real challenge. Examples of **problems include** the following:

- Conflicting interests may halt the processes if not properly addressed
- Skilful process facilitation is required but often not prioritised
- Processes demand considerable time and resources from all actors
- Mandates of participatory arenas are often poorly specified
- Potential misuse of participation to legitimise decisions already taken
- Participants view the resource on different scales

[2]*Compare: Mikalsen K, Jentoft S. 2008. Participatory practices in fisheries across Europe: making stakeholders more responsible. Marine Policy, forthcoming special issue.*

Photo: Douglas C Wilson

Participatory fisheries management in Europe:

Different forms of participation in fisheries management exist across Europe. They function primarily in a single stock management perspective. Consider, for example, co-management structures of local resource user groups, such as the Cofradías in Spain or the Biesheuvel system in the Netherlands[2] .

Some consultative arenas have been installed at higher administrative levels, that encompass a larger array of stakeholders, e.g. consumer organisations, and exert varying degrees of influence on the (sub-)national fisheries policy. These can operate even at international levels, such as the EU's recently established Regional Advisory Councils for fisheries.

New institutions needed?

Ecosystem-based fisheries management comprises more voices and considers more issues than single-stock management. To implement this approach, current management structures in Europe need to advance so that they facilitate more appropriate and effective forms of stakeholder participation.

Current progress in broadening the scope of fisheries management and installing mechanisms for participation is mixed within the EU.

All stakeholders, including public authorities, user groups and the general public have a stake in these issues. They are situated in different sectors and on different levels. In other words, the competence to regulate and the necessary expertise are spread across these sectors and levels. There is also great variability between countries regarding their handling of environment-fishery interactions and their institutional and legal settings for fisheries decision making.

For both reasons the required innovation for reforming institutional structures cannot be invented by expert design on the blackboard – but instead by **delicate processes of societal decision-making**.

The way forward should be marked by attempts to further build up experience in stakeholder participation at, and across, all administrative and jurisdictional levels. It is in this practical work and in the empirical research on fisheries governance that know-how will mature and institutional innovation will materialise.

Photo: Augustin Berghöfer

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The IBEFish analytic frame for stakeholder processes

Settings in fisheries management are too diverse to formulate characteristics of any one ideal stakeholder participation process. But a common set of core criteria can help to systematise practical experience.

The IBEFish analytic frame guides the analysis of stakeholder participation in fisheries management. It comprises several aspects critical for achieving effective processes of societal deliberation and decision-making. These aspects are grouped into the following four themes:

1. *Information management – How is information dealt with?*
2. *Legitimacy – How is it ensured?*
3. *Social Dynamics – What happens during the stakeholder process?*
4. *Costs – What are they?*

IBEFish criteria do not exhaustively cover all aspects of fisheries management: they have been selected primarily from research on environmental conflict resolution and on decision support. Both these areas are keys to mediating between divergent interests under conditions of uncertainty – typical characteristics of fisheries in the EU.

This brochure presents key findings on each of the four themes from a European research review of participatory fisheries management. [3]

[3] *This review comprised document analysis and key informant interviews on over 20 research projects. Furthermore, 12 researchers from these projects exchanged experiences and discussed findings during two workshops in 2007.*

Theme 1: Information Management: How is information dealt with?

Integrated fisheries management is marked by significant levels of risk, uncertainty and ignorance. Existing knowledge is disconnected and in incompatible formats dispersed between different scientific disciplines, government administrations and stakeholders.

Information needs

Ecosystem-based approaches to fisheries management tend to have high demands for information. But exact needs – for example, regarding the level of detail, exactness and timeliness of information and the depth of understanding required - are impossible to fully anticipate.

A prevailing uncertainty about “facts” in fisheries management implies a high potential for conflict. However, the need for certainty and detail varies depending on the issue and available management instruments. The precautionary principle provides a general orientation, though it is difficult to make it operational.

The involvement of stakeholders can enrich the knowledge base of ecosystem-based fisheries management. However, in the face of competition over resource use, and an absence of trust, poor incentives exist for them to contribute such knowledge. For instance, fishermen have many reasons to be cautious about disclosing their information on fishing grounds.

In some EU member states, environmental impact assessments are being required for fisheries. While generating relevant information on anticipated management outcomes, they cover only a limited spectrum of the social, economic and ecological system within the marine environment. Nor can all impacts assessed by experts, because they imply value judgements which require stakeholder deliberation. Thus environmental impact assessments may produce substantial input for stakeholder deliberation – but cannot replace it.

Recommendations:

1. Management arrangements should be developed under explicit recognition of the uncertainty and complexity that are the central reality in marine ecosystem-based management.
2. Identification of information needs should be linked to stakeholder processes and support the application of precautionary principle as well as the requirements of the management instrument to be applied.
3. Participatory arenas should develop procedures whereby the potential disadvantages for participants disclosing sensitive information are effectively managed.
4. Environmental impact assessments should seek to embrace a social, economic and ecological perspectives and aim at providing input for deliberation on management options instead of merely endorsing a preferred option already chosen.

Photo: Douglas C Wilson

Knowledge formats

In Europe, research-based knowledge - and not experience-based knowledge - is the dominant knowledge format in fisheries decision-making. This is inevitable given the need of statistical assessments of marine fish stocks, but also problematic, because it requires that the knowledge of many stakeholders involved in participatory management has to be "translated" into a scientific format in order to be fully considered within the decision-making processes.

Along with knowledge formats, stakeholders' perspectives on any given issue vary: they 'frame' issues in different ways, depending on their understanding, interests and values. Issue-framing determines what kind of knowledge is considered relevant, which options are conceivable, and even which stakeholders should be included.

The ecosystem-based approach to fisheries management requires all stakeholder perspectives to be considered and their corresponding knowledges to be elucidated and integrated in a meaningful way. A basic requirement for this is to accept that there will be multiple interpretations of a situation.

Recommendations:

5. Integrating fishers' experienced-based knowledge with research-based knowledge requires "translation between different knowledge formats" – more time and special attention should be dedicated to this challenge.
6. Deliberation of stakeholders should not primarily be sought for solving pre-defined problems, but for their definition as well. Issues need to be collectively framed and reframed.

Combining information across scales

We are not yet able to integrate complex information generated by stakeholders at lower scales in ways that produce more useful information on higher scale processes. Current averaging techniques which are used to combine many pieces of place- or time-specific information for a "big picture" are widely recognised as inadequate.

A limited fishing area already comprises a multitude of interconnected socio-ecological aspects. Taking one aspect and averaging data across time or space to achieve a systemic perspective may mean that it loses its meaning.

Recommendation:

7. The distribution of management authority across administrative levels should consider current problems with the integration of information across scales.

Theme 2: Legitimacy: How is legitimacy ensured?

The legitimacy of participatory fisheries management is subject to its legal compatibility, and to issues of accountability and transparency of rules. If participation within fisheries management is to mean more than legitimising government and its policies, then the devolution of governing powers to participatory arenas is necessary.

Legal compatibility

In most EU Member States, ecosystem-based approaches to fisheries management do not yet have a robust legal backing. And, the legal support for stakeholder consultation and participatory decision-making in fisheries differs substantially across Europe. If participatory structures are poorly compatible with law, they are prone to external discredit.

Nonetheless, influence is not limited to the scope of legal prescription: positions developed in participatory arenas often benefit from the political legitimacy and constituency that such stakeholder processes produce.

Recommendation:

8. Strengthen (sub-) national legal backing for ecosystem-based approaches to fisheries management and associated participatory structures, in order to secure the effectiveness of these processes.

Participation across jurisdictional levels

Fisheries management takes place at different jurisdictional levels, from the EU down to local fisheries committees. Stakeholder participation is most advanced in local management, sometimes institutionalised in historically-evolved structures. However, participation operates in the dynamic context of politics, which has effects across different jurisdictional levels.

Trends to enlarge and systematise consultative mechanisms at high jurisdictional level do not suffice. However, any devolution of powers comes with increased needs for matching policies in a decentralised system.

Recommendation:

9. Develop procedures whereby strategies agreed upon in participatory arenas can influence policy processes at higher levels in a transparent way.

Photo: Jose Pascual

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Photo: Douglas C Wilson

Accountability

Internal accountability (towards participants) and external accountability (towards the general public) refer to control mechanisms for those bearing responsibility. This accountability legitimises a participatory structure. But the distribution of accountability – i.e. who is accountable to whom and for what - depends on the mandate given to that arena and is often not clearly specified.

Internal transparency in stakeholder processes is facilitated by confidentiality (for example, the Chatham House rule[4]) and it strongly supports participatory decision-making and subsequent implementation.

The issues of transparency and accountability on the one hand, and confidentiality on the other, have raised concerns about the efficiency of multi-stakeholder processes. But suggestions to limit the spectrum of stakeholders are attractive primarily to those whose powers might be challenged.

Recommendations:

10. Even where mandates can only be short term they should specify operational rules including the distribution of accountability. This enhances the functioning and legitimacy of a participatory arena.
11. In stakeholder processes, confidentiality is highly beneficial but needs to be balanced with external transparency, allowing for public accountability.
12. Generally, concerns for management efficiency should focus on process design, rather than on restrictive stakeholder selection.

[4]"When a meeting, or part thereof, is held under the Chatham House Rule, participants are free to use the information received, but neither the identity nor the affiliation of the speaker(s), nor that of any other participant, may be revealed."

Theme 3: Social Dynamics: What happens during the stakeholder process?

This question refers to the evolution of relationships among actors and to the scope for agency, or actual influence, of a stakeholder process.

Changing relationships

Fisheries management in Europe has a history of conflicts between fishing industries and governmental control mechanisms, which are closely associated with fisheries science institutions. Conflict settings are diverse, but a general 'rapprochement' can now be observed, with fishers, managers recognising the potential for mutual benefit.

Consider, for example, the various research collaborations where fishers provide infrastructure for scientists and assume monitoring tasks. It is in the fishers' own interest to generate high quality assessments and to have their day-to-day observations (their experienced-based knowledge) confirmed by research.

Facilitating stakeholder processes and institutionalising participatory arenas bring opposing parties together. This can improve relations or exacerbate conflict, depending on both external aspects and the participatory processes themselves.

However, historical antagonisms between organisations can make trust-building between their representing individuals a delicate affair. This is especially the case when organisations do not allow their representatives much liberty for deliberation, and/or when power relations are highly unequal.

Overall, local and regional arenas tend to involve participants pursuing their own vital interests, whereas participatory arenas at national and EU levels tend to have participants who are less personally affected by the issues. Therefore, alliances between representatives of different interest groups change more frequently at higher levels, following strategic reasons.

Recommendations:

13. Facilitators/conveners of stakeholder processes need to be primarily concerned about effective collaboration during these processes, rather than pursuing their own agenda.
14. In addition to conducting group events, facilitators/conveners need to have sufficient time and resources to explore bilaterally with opposing stakeholders to illuminate possible common ground and opportunities for compromise.
15. Processes should be adapted to the needs, capacities and peculiarities of the participants, not vice versa.

Photo: Jose Pascual

Trust in the process

Stakeholders need to have an understanding of the expected outcomes at the beginning of a participatory process to have an incentive to get involved, especially, if participation is costly, if resources are scarce, or if past experiences of similar exercises have produced little impact. They need to trust that the structure of the process and the motives of other participants allows for meaningful deliberation according to commonly accepted rules. However, being too concrete about planned outcomes limits the space for jointly developing new arrangements and potentially influential strategies.

Recommendation:

16. If expected outcomes cannot or should not be specified in detail and if other uncertainties affect the motivation to participate, process facilitation and rules of procedure should be strengthened and specified so as to generate trust in the process.

Photo: Jose Pascual

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Mandate and influence

Participation in fisheries management often takes place in poorly defined arenas. It is often unclear, to participants and to outsiders, whether policy uptake of the decision advice can be expected.

Participatory arenas evolve according to the political setting. Regional Advisory Councils both catalyse and are subject to a continuously changing constellation of diverse bodies, forums and ad hoc consultations launched by the EU and national governments. It is only with hindsight that actual influence can be assessed.

Recommendation:

17. The devolution of fisheries management authority on regional seas to stakeholder-based bodies that are officially recognized and publicly accountable would allow for clearer mandates and make actual influence more transparent. This could benefit less powerful actors.

Theme 4: Costs: What about the costs of decisions and decision-making?

A costs perspective can reveal important characteristics of a fisheries management regime: What aims can be achieved with a given management budget? How expensive is the (participatory) management process itself? A pre-requisite is the capacity to specify costs.

Specifying costs

If fisheries management takes other uses of the marine environment and also ecosystemic aspects into account, estimation of costs cannot be limited to the costs of fishing and quota management. Costs associated with information management, cross-sector coordination and conflict resolution become central – and specifying costs becomes a real challenge!

The review of European research suggests that cost calculations are currently not systematically applied. Nonetheless, costs play an important role in many management instruments, for example, determining the suitable level of subsidies to technical measures that will reduce the damage caused by seals to coastal fishing in the Northern Baltic Sea.

Photo: Jose Pascual

Recommendation:

18. As many management instruments require cost estimates, cost specifications should be reviewed and adapted to the more encompassing ecosystem-based approach to fisheries management, so as to better reflect actual costs incurred.

High management costs

Management costs are considerable. Although there is a great deal of variability among different countries, it has been estimated[5] for a single-stock management regime that information gathering, decision making on quotas and monitoring and enforcement of decisions amount to 30% of the value of landings. This estimate does not consider the associated further costs incurred to the environment and to the fishers.

In fisheries management, higher management costs do not necessarily imply better management

[5]Referring to the US: Arnason R. Cost of fisheries management: theoretical and practical implications. Paper given at the XIth EAFE (European Association of Fishery Economists) annual conference, Iceland: University of Iceland; 1999.

Photo: Jenny Hatchard

outcomes. When the Dutch government replaced individual quotas with group quotas ('Biesheuvel system'), compliance with regulations increased (better management outcome) and enforcement costs decreased (lower management costs).

The ecosystem-based approach to fisheries can be expected to incur higher management costs than single-stock management, due to the wider spectrum of issues and actors considered. However, the ecosystem-based approach pursues a much larger set of goals comprising ecological and socio-economic sustainability of entire marine systems. Thus, the costs of the management approaches cannot be directly compared, unless the secondary and tertiary damages arising from single-stock management are also considered.

Recommendation:

19. Single-stock fisheries management should not be succeeded by ecosystem-based approaches to management without fully considering management costs. These costs need to be shouldered by all users of marine resources in the area.

Who bears them?

The costs of management measures can be highly uneven, especially between fishers and regulating authorities. Thus, it is questionable to what extent fishers should have to bear the increasing monitoring costs, as for example in the case of environmental impact assessments.

Recommendation:

20. The distribution of management costs among actors should be central to plans to shift from a single-species approach to an ecosystem-based framework.

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Further Reading:

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This brochure presents key findings of a review of current experience in participatory fisheries management in Europe.

In European fisheries, authorities competent to regulate and stakeholders are situated in different sectors and on different jurisdictional and administrative levels. This implies that information flows, legitimacy, social dynamics and costs are also spread across sectors and levels – a big challenge to management.

The ecosystem-based approach to fisheries management further increases demands on management: it seeks to jointly consider ecological and socio-economic aspects, with fisheries managed in the context of multiple interdependent uses of the Sea.

For fisheries to become sustainable, new institutional structures are needed to effectively mediate between diverse interests and perspectives on the marine environment.

Mediation is a delicate societal process and stakeholder participation and associated processes are essential tools for ensuring success.

More info: www.environment.fi/syke/ibefish

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