

Report of the

**FAO EXPERT CONSULTATION ON THE ECONOMIC, SOCIAL AND
INSTITUTIONAL CONSIDERATIONS OF APPLYING THE ECOSYSTEM
APPROACH TO FISHERIES MANAGEMENT**

Rome, 6–9 June 2006



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PREPARATION OF THIS DOCUMENT

This is the final report of the Expert Consultation on the Economic, Social and Institutional Considerations of Applying the Ecosystem Approach to Fisheries Management, held in Rome, Italy, from 6 to 9 June 2006.

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Distribution:

Participants at the meeting
Directors of Fisheries
FAO Fisheries Department
FAO Regional and Subregional Fisheries Officers

FAO.

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ABSTRACT

The Expert Consultation was convened by FAO in order to elaborate a framework for technical guidelines on the economic, social and institutional considerations (e.g. information, processes and approaches) needed in the application of the ecosystem approach to fisheries management (EAF). The twenty-fifth session of the FAO Committee on Fisheries, held in Rome, Italy, from 24 to 28 February 2003, requested FAO to develop a tool box supporting the EAF, containing rapid appraisal techniques, participatory processes, conflict resolution, methods of integrated resource assessment and management, including co-management, and capacity building. It was also stressed that in undertaking these activities fishers should be seen as integral components of aquatic ecosystems, taking into account the social and economic impacts of applying the EAF.

The Expert Consultation had before it a comprehensive background document on the subject matter and recommended that two products be published by FAO:

- An FAO Fisheries Technical Paper on the economic, social and institutional considerations of applying the EAF that would include a full review of relevant information based on the background document.
- FAO Technical Guidelines for Responsible Fisheries on the economic, social and institutional considerations of applying the EAF, that would be a much more concise document highlighting how economic, social and institutional considerations can be integrated into the application of EAF.

The Expert Consultation provided specific guidance for the finalization of the technical paper based on a revision and elaboration of the background document and produced a detailed outline for the preparation of the technical guidelines. It also recommended the study of the impact and use of the various published guidelines with the aim to further improve the future production of guidelines. In addition, the Expert Consultation recommended the preparation of a consolidated publication including fisheries management, EAF and its human considerations.

The Expert Consultation also noted the need to clearly explain the current interpretation of the term EAF, expressing the ideas of a holistic, participatory and integrated approach to fisheries management. The Expert Consultation recognized that the move towards EAF would in many instances be accomplished on an incremental and adaptive management basis in view of each specific context being addressed.

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OPENING OF THE MEETING AND ARRANGEMENTS FOR THE SESSION

The Expert Consultation on the Economic, Social and Institutional Considerations of Applying the Ecosystem Approach to Fisheries (EAF) Management was held in Rome, Italy, from 6 to 9 June 2006.

The list of experts and other participants in the meeting is shown in Appendix B. The documents which were before the Expert Consultation are listed in Appendix C.

The meeting was called to order by Mr Ichiro Nomura, Assistant Director-General, Fisheries Department, who delivered the opening statement. The text of his statement is reproduced in Appendix D.

Dr Jon Sutinen served as Chairman of the Consultation and Ms Merle Sowman served as Rapporteur.

The agenda shown in Appendix A was adopted by the Expert Consultation.

OBJECTIVES OF THE EXPERT CONSULTATION

This Expert Consultation (EC) was convened to advance the discussion on the practical application of the EAF, with specific focus to the human aspects (i.e., social, economic and institutional) of fisheries management.

In discussing how to further the application of the EAF, the EC reflected first on why the EAF should be considered a necessary tool in moving toward the ultimate goal of sustainable development of fisheries and their ecosystems. There was recognition by the EC of the various factors and interests that resulted in the establishment of EAF as an internationally accepted approach. These included the inadequacies of management approaches focused solely on target species, the promotion of conservation-oriented policies, the need for more participatory/co-management approaches, and the fact that EAF-type management approaches have already been used implicitly in many local-level and/or community management schemes.

However, issues were raised on the exact nature and contents of EAF and the required conditions under which it could be applied. There were concerns about the additional data/information needs over and above those required for single stock management which itself had often not been very successful. In this connection, the EC discussed the notion of “best available [scientific] information” that, for example, in small-scale fisheries could, in some cases, be confined to traditional knowledge. The EC agreed that data inadequacy in itself should not hinder the application of EAF, in principle. It also acknowledged that there was often an imbalance in available data and information across disciplines with a bias towards natural science data and information. This was both a consequence of how management objectives are being formulated and stated (often in biological terms) and the shortcomings in the allocation of research funding and staffing to social sciences.

The EC agreed that the move towards EAF would in many instances be accomplished on an incremental and adaptive management basis in view of the much greater uncertainties and risks, the time needed to learn and acquire new knowledge, and the need to carefully assess

the distributional implications of EAF interventions. In many developing countries, EAF would have to be applied in a “low-cost” manner to be feasible and become widely adopted.

The EC noted that EAF needed to be context specific, which posed a special challenge in the provision of guidance and the development of guidelines.

The EC recognized that EAF had inter-sectoral and intra-sectoral dimensions – more or less emphasis needed to be given to the former or the latter depending on the specific context.

In order to begin to address these issues, the EC agreed that the two primary outcomes of its work would be (i) commentaries and inputs into an FAO Technical Paper on economic, social and institutional considerations in the application of EAF and (ii) an annotated outline of guidelines on the same topic as a supplement to the existing EAF guidelines.

BACKGROUND DOCUMENT ON THE ECONOMIC, SOCIAL AND INSTITUTIONAL CONSIDERATIONS OF APPLYING THE ECOSYSTEM APPROACH TO FISHERIES MANAGEMENT

The EC had before it a background paper that had been prepared by the FAO Secretariat. Angel Alcala, Patrick McConney and John Ward had been asked by the Secretariat to initiate the discussion on the background document through a discussant panel and then the EC reviewed the background document, section by section, to provide comments and discussion to be incorporated into a Technical Paper (TP). Many useful suggestions were made to improve this report. Three case profiles (the Mesoamerican reef spiny lobster fishery, the Tanzanian coastal mixed-species fisheries, and the Norwegian Barents Sea Cod fishery¹) were examined by three working groups to assess the utility of the proposed outline and contents of the envisaged Technical Paper.

The EC provided guidance on improvements to the TP. These included the following:

- The definition of the term EAF as currently understood would need to be clearly explained in the document, expressing the ideas of a holistic, participatory, integrated approach to fisheries management, as opposed to a strictly biological/ecological approach. Within this definition would be the understanding that the interpretation and application of the EAF may vary by context.
- EAF objectives needed to be guided by overall fisheries sector policies (as against more narrow fisheries management objectives), have a long-term orientation (intergenerational equity), and to fit EAF within a holistic framework, and as noted above, an inter-sectoral context (intra-generational equity). This needed to be discussed early on in the paper.
- Values and valuation were at the core of EAF and needed to be addressed comprehensively in the document.
- EAF objectives and principles needed to be revised and expanded to better reflect social, economic and institutional (SEI) dimensions.

¹ Prepared by Juan Carlos Seijo, Cassandra De Young/Magnus Ngoile and Björn Hersoug, respectively.

- Application of decision-making theory to address situations of limited information and uncertainty needed to be addressed.
- The common property resource management theory and experiences need to be addressed.
- Understanding the SEI dimensions of EAF within the context of co-management/community-based management is a priority.
- There is a need for more attention to the notion of nested institutional arrangements at various scales, from local to national to international.
- More extensive coverage is needed of capacity building and awareness raising.
- Simple, clear and non-discipline-specific language is important, particularly in the main text, with a balance of economic, social and institutional aspects.
- The EC suggested that additional issues be included such as power and political considerations, demography, local indigenous knowledge, change management, issues of legitimacy and transparency, and greater attention to gender and family planning.

In accordance with the preceding discussions, the EC recommended that the following outline be taken into consideration by the Secretariat:

Setting the Economic, Social and Institutional Context for the EAF

- Introduction and background
- Human values of ecosystem services
- Policies, legal and institutional frameworks relevant to the EAF
- Social and economic considerations of applying the EAF

Facilitating the Implementation of EAF

- Introduction
- General principles
- Approaches and decision-making tools
- Mechanisms for applying/achieving EAF
- Sustaining an EAF

The EC agreed that the Technical Paper should also serve as guidance for the preparation of the envisaged Technical Guidelines document.

CONTRIBUTIONS TOWARDS CODE OF CONDUCT TECHNICAL GUIDELINES ON THE ECONOMIC, SOCIAL AND INSTITUTIONAL CONSIDERATIONS OF APPLYING THE ECOSYSTEM APPROACH TO FISHERIES

The EC discussed the target audience, nature, scope and format of the guidelines and provided general guidance on the above before breaking into three groups to formulate draft outlines. The following key considerations were agreed upon:

- The guidelines should be a stand-alone document that emphasized how SEI considerations can be integrated into applying EAF. These guidelines should complement the existing guidelines on EAF and fisheries management.
- The EC agreed that these would be generic guidelines, not a step-by-step guide, and would offer a suite of approaches, mechanisms and tools which could be applied and adapted to specific contexts and situations.
- The EC agreed that the target audience would include decision makers, managers, researchers, leaders of fishing communities, industry, who would be part of, or drive, the development and implementation of EAF. In this regard, the use of illustrations, diagrams, and flow charts would facilitate the accessibility of the guidelines to this broad range of audience.
- The EC stressed the importance of clarifying that there were various entry points for the EAF processes. EAF initiatives could be taken at various levels and by different stakeholder groups ranging from a single community or a group of communities wishing to improve the management of inshore fisheries to a government deciding to widely adopt EAF in its fishery policy. This required the EAF guidelines to cater for both bottom-up and top-down processes.
- The EC stressed the importance of communicating that implementation of these guidelines was a learning and iterative process requiring adaptive management.

A draft annotated outline for the technical guidelines was agreed upon and is provided in Appendix E.

RECOMMENDATIONS

The EC recommended that information on the use of the Code of Conduct technical guidelines series be collected through appropriate surveys and other means. This would allow for obtaining advice on how these guidelines could be improved upon including through a better layout and more illustrative presentation.

The EC recommended that the FAO Secretariat consider the preparation of a consolidated guidelines publication on fisheries management including EAF and its human considerations.

ADOPTION OF THE REPORT

The EC adopted its report on 9 June 2006.

APPENDIX A

Agenda

Opening of the meeting and arrangements for the session

Objectives of the Expert Consultation

Background document on the economic, social and institutional considerations of applying the ecosystem approach to fisheries management

Contributions towards Code of Conduct technical guidelines on the economic, social and institutional considerations of applying the ecosystem approach to fisheries

Recommendations

Adoption of the report

APPENDIX B

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APPENDIX C**List of documents**

1. Provisional Agenda
2. Draft background document on social, economic and institutional considerations of applying the ecosystem approach to fisheries
3. FAO Technical Guidelines for Responsible Fisheries. No. 4, Suppl. 2. Fisheries Management. 2. The ecosystem approach to fisheries
4. FAO Fisheries Technical Paper. No. 443. The ecosystem approach to fisheries. Issues, terminology, principles, institutional foundations, implementation and outlook.
5. FAO Technical Guidelines for Responsible Fisheries. No. 10. Increasing the contribution of small-scale fisheries to poverty alleviation and food security
6. FAO. Putting into practice the ecosystem approach to fisheries

APPENDIX D**Opening statement by Mr Ichiro Nomura, Assistant Director-General,
FAO Fisheries Department**

Ladies and Gentlemen,

Welcome to Rome and welcome to FAO.

I'm very grateful that you have accepted to serve as experts in this Consultation. I also would like to express my thanks to your organizations or governments which have agreed to your participation.

Let me give you a brief background to the convening of this Expert Consultation. As I believe all of you are aware, the issue of ecosystem approaches to fisheries management featured prominently in deliberations at the twenty-fourth session of the Committee on Fisheries (COFI) in 2001. COFI welcomed the opportunity to address the subject in a dedicated conference on this topic, the Reykjavik Conference on Responsible Fisheries and agreed to place greater emphasis on promotion of ecosystem approaches in fisheries management. The Reykjavik Conference was held in 2001 and culminated in the adoption of the Reykjavik Declaration on Responsible Fisheries in the Marine Ecosystem.

In accordance with a request in the Reykjavik Declaration, an Expert Consultation on Ecosystem-based Fisheries Management was held in Reykjavik, Iceland in 2002 at which technical guidelines were developed for an ecosystem approach to fisheries (EAF), focusing on fisheries management. FAO initiatives in EAF were supported at the World Summit on Sustainable Development (WSSD), held in Johannesburg, South Africa in 2002, which gave attention to the importance of adopting an ecosystem approach to managing natural resources, including reference to the Reykjavik Declaration.

At the twenty-fifth session of COFI in 2003, FAO was commended on the EAF technical guidelines and COFI suggested that FAO, through case studies on small-scale fisheries, develop a tool box supporting the EAF, containing rapid appraisal techniques, participatory processes, conflict resolution, methods of integrated resource assessment and management, including co-management, and capacity building. In addition, COFI identified working on the implementation of the ecosystem approach to fisheries management, as a priority area for the Fisheries Department work programme in support of countries' efforts to implement the Code of Conduct for Responsible Fisheries.

In furthering this work, COFI suggested including clearer definitions of the EAF terminology, evaluation of its legal implications, better analysis of social and economic objectives, development of ecosystem-related indicators, reference points and decision rules, and deeper analysis of bio-ecological issues. It was also stressed that in undertaking these activities fishers should be seen as integral component of aquatic ecosystems, taking into account the social and economic impacts of applying the EAF.

At the twenty-sixth session of COFI in 2006, it was noted that there still needs to be greater understanding on how the EAF should be applied in practice. In addition, many Members proposed that an agenda item on the Ecosystem Approach be included in the 2007 session of COFI.

This Expert Consultation has been convened to advance the discussion on the practical application of the EAF, with specific focus to the human aspects of fisheries management. As part of this work, a background document regarding the economic, social, and institutional aspects of applying the EAF has been made available to you and will form an important basis of your work during the coming four days.

For those of you who are not familiar with FAO rules and procedures, I should perhaps clarify your role in this Expert Consultation, which you attend in your individual capacity and not as representative of your government or organization. In this line, there is no difference in status between those of you who work with government or those of you who work with a private or non-governmental entity.

Your task over the coming four days is to advise the FAO Fisheries Department and, through it, the next session of COFI in 2007, on the possible contents of economic, social, and institutional guidelines for applying the EAF. I should mention here that, although much focus has been placed on the application of EAF to capture fisheries in marine waters, these issues are relevant for inland waters and, therefore, the provisions of the guidelines should apply equally to inland fisheries.

I wish you fruitful deliberations over the coming days and look forward with interest to the results of your work. In closing, I should mention that the report of your Consultation will be published by FAO and also be made available on our home page.

APPENDIX E

Annotated outline for the FAO Technical Guidelines for Responsible Fisheries on the economic, social and institutional considerations of applying the ecosystem approach to fisheries

1) Background and introduction

- Nature, scope target group of this Guideline
- Objectives of this Guideline
- Rationale of the ecosystem approach to fisheries (EAF)
 - value-based, broader policy frameworks
 - limitations of conventional management
 - broader set of objectives, including meeting international commitments
 - greater engagement by a wider group of stakeholders
 - greater consideration of equity
- Setting the scene, historical development of EAF
 - Diversity of fishery/ecosystem types and cross-cutting linkages:
 - international/national/local
 - inshore/offshore
 - community-based/industrial
 - linkages, boundaries, scale and scope
- Explanation of principles (multi/interdisciplinary; participatory; holistic, integrated; transparent; legitimate; accountability; fairness; equity, etc.) and definitions
- Starting/entry points for engaging with EAF
 - context-specific
 - scoping needed to determine entry point
 - adaptive management
 - linking with other sectors and intersectoral processes (integrated coastal area management [ICAM]; ocean policy)
 - defining the fisheries priorities and responsibilities within the above wider context
 - geographical scale (community, bay, large marine ecosystem [LME], etc.)
 - what scale of ecosystem or portion of an ecosystem is being considered?
 - entry point to EAF may be SEI-related as much as biophysical
 - balanced and integrated approach including SEI and biophysical knowledge
 - EAF by increments

2) Understanding the SEI context for EAF [where we are and what is given]

- Participatory situation analysis (clarify your entry point, looking at the social, economic and institutional context)
 - clarifying the scale and scope
 - identify stakeholders and their needs and aspirations, and livelihood aspects
 - identify traditional knowledge and existing EAF-like management approaches
- SEI issues including:
 - risks and uncertainties; vulnerabilities (references to tools how to do it)
 - national differences in terms of fishery type
 - sector allocations versus spatial allocations
 - political realities
 - short-term and long-term perspectives (applied to electoral, planning, funding)
 - political will

- policy coherence (between parts of government, between sectors, etc.)
- power
 - power disparities and dynamics throughout the fishery system
- assess current governance relative to good governance principles (accountability, transparency, etc.)
- know societal goals and values (get consensus on what these are)
 - fisheries as part of a suite to achieve goals
 - multiple uses of the ocean
 - EAF as a component of integrated management (IM)
- relevant policy frameworks
 - international frameworks
 - transboundary considerations
 - regional organizations and cooperative arrangements
- external influences (e.g. climate change, trade and global market forces, regime shifts, natural disasters)
- special considerations (genetically modified organisms [GMO], alien species, etc.)
- [*Explain information needs*]

3) Formulating objectives [where do we want to go?]

- Identifying and agreeing on EAF priorities (at different levels)
- Policy and management – decide on entry point
- Policy and strategy considerations
 - elements (e.g. market; government; social organization; civil society organizations; legislative reform; ... down to management plans; capacity building; community-based monitoring depending on context and entry point)
 - representation - enhancing participation and broadening the perspective to include all stakeholders (potentially beyond fishery sector)
 - champions for EAF at all levels
 - political commitment and buy-in at relevant levels
 - change management (in organizations) – how to make it happen?
 - capacity building different under EAF
- Take into account aspects of
 - gender, poverty, livelihoods, equity
 - human realities of interaction between politics, etc., and EAF implementation
 - intergenerational and intra-generational equity issues (i.e. serving needs and interests of current and future generations)
 - management and access regimes

4) SEI aspects of developing and implementing an EAF Plan of Action

- Clarify context
 - wide variety of contexts (e.g., coastal community, middle-scale, industrial, freshwater)
- The Plan of Action
 - identifying and evaluating options for action
 - resources and resource mobilization (i.e. human and financial resources, capacities and capabilities)
 - capacity building
 - institutional requirements (legislative change; local organization development; encouraging ownership, cooperation and support);

- hierarchy within management system, decentralized approach, implementing group of stakeholders in community, context of integrated coastal and ocean management, inter-sectoral interactions
- incentive mechanisms (rights; economic incentives; correcting market failures; encouraging social organization);
 - management of changing behaviour/incentives – changing arrangements under markets, governments, etc.
- livelihood diversification, economic diversification and other non-fishery approaches to fishery issues
- enabling appropriate access regimes, such as rights-based management, where appropriate (implement with high degree of participation; add value to the asset, implications for who does the research; take into account all use rights to ecosystem services including fishery resources)
- conflict management and cooperation (more skills and institutional arrangements for conflict management/resolution, negotiation, mediation, arbitration)
- considerations to take into account:
 - adaptive process
 - intersectoral linkages
 - sustainability of the plan of action
- analytical approaches:
 - assessment and evaluation framework (giving attention to cumulative and secondary and induced impacts);
 - identifying information requirements
 - decision-making under uncertainty
 - assessing economic, social and institutional implications and trade-offs, using various approaches and tools (sustainable livelihoods approach [SLA]; valuation methods; social impact assessment [SIA]; cost-benefit analysis [CBA]; decision-making techniques and tools)

5) Monitoring and evaluation (M&E)

- Iterative, adaptive process needed throughout
- Agreeing on criteria for M&E
- Identification of M&E indicators, using base-line information, reference points, etc.
- Mechanisms and methods for M&E
- Implications of increased scale and scope of EAF for MCS
- Learning lessons and revision of policy, strategy, plan of action

6) Research, data and information

- What SEI info is needed? Need a balance of SEI and bio-physical information
- Participatory process of data collection and research, in every relevant field
- Members of community and fishermen can be involved in all aspects
- Provide mechanisms for fishery-related SEI research (e.g. universities)
- Appropriate capacity building and acquisition (SEI) – in broader context (IM)
- Education for society; getting into schools
- GIS with relevant socioeconomic data of all ecosystem users
- Application and use of traditional ecological knowledge (TEK)
- Utilize simplified low-cost approaches where possible

7) Sustaining an EAF

- Political commitment and buy-in at relevant levels
- Awareness raising; education/training
- Sustainable financing
 - differs depending on the fishery context (e.g. inshore vs. offshore)
 - broaden perspective on who is receiving benefits, who pays costs (potentially more players to get funding from)
 - self-reliant financing to ensure long term sustainability (through, e.g., cost-recovery; resource fees; beneficiary-pays principle)
 - adaptive management and institutional learning

Annex: Instruments that support EAF

General comments:

- Guidelines should be simple and clear
- Need to explicitly cover community and user participation, traditional ecological knowledge
- Suggest in document to member countries of the FAO the need to take guidelines to another level in order to make it useful to all fishing groups and sectors, especially, small scale, artisanal and community-based fisheries
- Giving FAO ideas on how and for whom the guidelines should be written
- Add diagrams and reading list to the guidelines
- Need diagram of process and entry points
- Must apply to both inland and marine fisheries/ecosystems
- Note that most of what is discussed is generally applicable to all fisheries management and reflects “good management”
- Be careful not to unduly force or imply an ordering of the aspects in presenting the structure of the guidelines

The Expert Consultation was convened by FAO in order to elaborate a framework for technical guidelines on the economic, social and institutional considerations (e.g. information, processes and approaches) needed in the application of the ecosystem approach to fisheries management (EAF). The twenty-fifth session of the FAO Committee on Fisheries, held in Rome, Italy, from 24 to 28 February 2003, requested FAO to develop a tool box supporting the EAF, containing rapid appraisal techniques, participatory processes, conflict resolution, methods of integrated resource assessment and management, including co-management, and capacity-building. It was also stressed that in undertaking these activities fishers should be seen as integral components of aquatic ecosystems, taking into account the social and economic impacts of applying the EAF.

The Expert Consultation had before it a comprehensive background document on the subject matter and recommended that two products be published by FAO: 1) a report on the economic, social and institutional considerations of applying the EAF within the FAO Fisheries Technical Paper series that would include a full review of relevant information based on the background document and 2) FAO Technical Guidelines for Responsible Fisheries on the economic, social and institutional considerations of applying the EAF, that would be a much more concise document highlighting how economic, social and institutional considerations can be integrated into the application of EAF.

The Expert Consultation provided specific guidance for the finalization of the technical paper based on a revision and elaboration of the background document and produced a detailed outline for the preparation of the technical guidelines. The Expert Consultation also noted the need to clearly explain the current interpretation of the term EAF, expressing the ideas of a holistic, participatory and integrated approach to fisheries management. The Expert Consultation recognized that the move towards EAF would, in many instances, be accomplished on an incremental and adaptive management basis in view of each specific context being addressed.

