

ADVISORY COMMITTEE ON FISHERIES RESEARCH

Report of the

**SECOND SESSION OF THE WORKING PARTY ON
SMALL-SCALE FISHERIES**

Bangkok, Thailand, 18–21 November 2003



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ISBN 92-5-105099-6

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PREPARATION OF THIS DOCUMENT

This is the final report approved by the participants at the Second Session of the Working Party on Small-scale Fisheries of the FAO Advisory Committee on Fisheries Research held in Bangkok, Thailand, from 18 to 21 November 2003. The discussion papers presented at the Working party will be published as a supplement to this report.

Distribution:

Participants
ACFR Members
FAO Fisheries Officers, Regional and Subregional Offices

FAO/Advisory Committee on Fisheries Research.

Report of the second session of the Working Party on Small-scale Fisheries. Bangkok, Thailand, 18 – 21 November 2003.

FAO Fisheries Report. No. 735 Rome, FAO. 2004. 21 p.

ABSTRACT

The Working Party on Small-scale Fisheries of the Advisory Committee on Fisheries Research (ACFR) held its Second Session in Bangkok, Thailand, from 18 to 21 November 2003. The Working Party was composed of 19 experts from 15 countries, covering a range of disciplines and activities connected with small-scale fisheries, taking into account geographical and gender balance. The participants agreed on a Vision Statement and on a Characterization of small-scale fisheries as well as on a research agenda of five main themes: Policy and institutional arrangements, Contribution, relevance and importance of small-scale fisheries to national economies and livelihoods, Management approaches to small-scale fisheries, Post-harvest issues and trade and Information systems for small-scale fisheries. The Session identified strategies to bridge the gap between research and action and provided preliminary ideas on key elements to be included in the proposed draft technical guidelines on increasing the contribution of small-scale fisheries to food security and poverty alleviation. The Working Party elaborated preliminary drafts of two separate technical documents namely: (i) Contribution, role and importance of small-scale fisheries and (ii) Research agenda for small-scale fisheries including terms of reference on some thematic topics. It requested the Secretariat to finalize the documents and submit them to ACFR at its Fifth Session.

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A VISION FOR SMALL-SCALE FISHERIES

The vision for small-scale fisheries is one in which their contribution to sustainable development is fully realized. It is a vision where:

- *they are not marginalized and their contribution to national economies and food security is recognized, valued and enhanced;*
- *fishers, fish workers and other stakeholders have the ability to participate in decision-making, are empowered to do so, and have increased capability and human capacity, thereby achieving dignity and respect; and*
- *poverty and food insecurity do not persist; and where the social, economic and ecological systems are managed in an integrated and sustainable manner, thereby reducing conflict.*

BACKGROUND AND PURPOSE

1. At the Fourth Session of the FAO Advisory Committee on Fisheries Research (ACFR), in December 2002, the Committee highlighted that small-scale fisheries had not received the research attention that they deserved considering the important contribution that they make to nutrition, food security, sustainable livelihoods and poverty alleviation, especially in developing countries. The Committee pointed out that although many of the issues such as user-rights, excess capacity, illegal, unreported and unregulated fishing, trade and incentives, governance, etc. are common across all fisheries, they need explicit attention in the small-scale fisheries (SSF) context. The Committee recommended that a working party be convened to elaborate a draft research agenda and undertake an evaluation of the role and importance of small-scale (marine) fisheries and outline ways in which the transition to responsible fisheries could be facilitated, bearing in mind the developing paradigm of Ecosystem Approach to Fisheries (EAF). The scope was later extended within the FAO Fisheries Department to also include estuarine and inland water capture fisheries.

2. The FAO Committee on Fisheries (COFI), at its Twenty-fifth Session, 24-28 February 2003, considered "Strategies for increasing the sustainable contribution of small-scale fisheries to food security and poverty alleviation". The Committee applauded FAO's initiative to treat the small-scale fisheries sector as a stand-alone agenda item for the Committee's attention, supporting the view of the last Session of the Advisory Committee on Fisheries Research. COFI strongly advocated that more efforts be made to support the small-scale fisheries sector, both inland and marine. The Committee welcomed the suggestion for the Organization to elaborate, in the context of the Code of Conduct for Responsible Fisheries, technical guidelines on increasing the contribution of small-scale fisheries to food security and poverty alleviation. Lastly, the Committee recognized that there was linkage between EAF and small-scale fisheries management and suggested that FAO, through case studies on small-scale fisheries, develop an adaptive EAF tool box with rapid appraisal techniques, participatory processes, conflict resolution, integrated resource assessment and management, including co-management, and capacity-building.

3. In response to the above requests, the Director-General of FAO, Dr. Jacques Diouf, convened the ACFR Working Party on Small-scale Fisheries to undertake an evaluation of the role and importance of small-scale fisheries, elaborate a research agenda for the sector, review strategies and mechanisms to bridge the gap between research and action and provide views on key elements that should be included in the draft guidelines on small-scale fisheries.

4. The outcome of the Working Party will be presented to ACFR at its Fifth Session in the fourth quarter of 2004. This administrative report gives a summary of the Working Party's outcomes and outputs.

ORGANIZATION OF THE WORKING PARTY

5. The Working Party held its meeting in Bangkok, Thailand from 18 to 21 November 2003. It was funded by the FAO Regular Programme with the support of the Sustainable Fisheries Livelihoods Programme (SFLP-GCP/INT/715/UK)¹. The meeting arrangements were coordinated by the Fisheries Unit of the FAO Regional Office for Asia and the Pacific.

6. The meeting was attended by 19 experts (researchers, practitioners and civil society organizations) from 15 countries, covering a range of disciplines and activities connected with small-scale fisheries, taking into account geographical and gender balance. The list of participants is attached as Appendix B.

7. The documents placed before the Working Party are listed in Appendix C and the Executive Summary of the documents in Appendix D. The meeting was chaired by Dr. John Kurien, First Vice-

¹ The Sustainable Fisheries Livelihoods Programme (SFLP) represents a partnership between FAO, DFID and 25 participating countries of West Africa. The SFLP uses the Code, and poverty profiling as tools in the sustainable livelihoods approach (SLA) context to facilitate changes in policies, institutions and processes to achieve poverty reduction in coastal and inland fisheries communities by improving livelihoods of people dependent on fisheries and aquatic resources.

Chair of ACFR, and organized in a series of plenary sittings and small break-out groups each facilitated by an expert. The Agenda of the meeting is attached as Appendix A. The main conclusions of the meeting, including the draft research agenda on small-scale fisheries, was adopted at the last plenary sitting. The FAO Secretariat was requested to finalize some sections and annexes of the research agenda and circulate it by e-mail to members of the Working Party for clearance.

OUTCOMES OF THE MEETING

8. The main outcomes of the meeting are the following:

Definition of Small-scale Fisheries

9. The Working Party agreed that it would be inappropriate to formulate a universally applicable definition for a sector as dynamic and diverse as small-scale fisheries. It felt that it would be best to describe the sector on the basis of the range of characteristics that are likely to be found in any particular small-scale fishery. The Working Party endorsed with slight modification the characterization that was used by the FAO Committee on Fisheries at its Twenty-fifth Session which is as follows:

“Small-scale fisheries can be broadly characterized as a dynamic and evolving sector employing labour intensive harvesting, processing and distribution technologies to exploit marine and inland water fishery resources. The activities of this sub-sector, conducted full-time or part-time, or just seasonally, are often targeted on supplying fish and fishery products to local and domestic markets, and for subsistence consumption. Export-oriented production, however, has increased in many small-scale fisheries during the last one to two decades because of greater market integration and globalization. While typically men are engaged in fishing and women in fish processing and marketing, women are also known to engage in near shore harvesting activities and men are known to engage in fish marketing and distribution. Other ancillary activities such as net-making, boat-building, engine repair and maintenance, etc. can provide additional fishery-related employment and income opportunities in marine and inland fishing communities.

Small-scale fisheries operate at widely differing organizational levels ranging from self-employed single operators through informal micro-enterprises to formal sector businesses. This sub-sector, therefore, is not homogenous within and across countries and regions and attention to this fact is warranted when formulating strategies and policies for enhancing its contribution to food security and poverty alleviation.”

A Vision for Small-scale Fisheries

10. The Working Party elaborated and agreed on the following vision for the sector²:

The vision for small-scale fisheries is one in which their contribution to sustainable development is fully realized. It is a vision where:

- *they are not marginalized and their contribution to national economies and food security is recognized, valued and enhanced;*
- *fishers, fish workers and other stakeholders have the ability to participate in decision-making, are empowered to do so, and have increased capability and human capacity, thereby achieving dignity and respect; and*
- *poverty and food insecurity do not persist; and where the social, economic and ecological systems are managed in an integrated and sustainable manner, thereby reducing conflict.*

² This vision is adapted from: Berkes, F., R. Mahon, P. McConney, R. Pollnac and R. Pomeroy. 2001. Managing small-scale fisheries: Alternative directions and methods. IDRC, Ottawa, Canada, 308 p.

Contribution, Role and Importance of Small-scale Fisheries

11. The Working Party agreed with ACFR that the role and importance of small-scale fisheries was not fully appreciated by national governments, donor organizations and many international agreements/treaties in terms of the contribution they make to sustainable development, poverty alleviation and food security. In addressing this lack of recognition two main drivers were recognized – inadequate information and poor understanding of some of the fundamental social, economic and institutional dynamics affecting the sub-sector and lack of communication of the patchy but useful information already available. Even based on this information, it is understood that many millions of people in developing countries depend on small-scale fisheries for food, income and employment and in many countries a major share of the total fisheries harvest comes from small-scale fisheries.

12. In many cases the “official” statistics underestimate the true situation. The lack of human and institutional capacities (e.g. budget) of the national institutions in charge of these statistics (Departments of Fisheries [DOFs] but also research institutes) partially explains this situation. The very scattered and remote location of most small-scale fisheries further exacerbates this lack of information.

13. As far as the poor understanding of the socio-institutional mechanisms driving the sector are concerned (e.g. “last resort activity” mechanisms, interaction and synergy between fishing and other activities, etc.) the Working Party recognized that further research is urgently needed. A research programme is further elaborated in the next section of this report.

14. The Working Party felt that it is also important to design communication strategies that identify the target audience, tailor messages to reach that audience and to define media strategies to reach the intended target. The following could be considered as elements for a more elaborated communication plan:

- Informative workshops aimed at facilitating the exchange of information between planners and fisheries stakeholders. This would in particular address the current lack of representativeness of the fishery sector into the poverty reduction strategies.
- Organisation and coordination of fisheries fora at different levels (local, district, national and international) to foster stakeholder participation in the decision-making process, institutional development of the sub-sector and to raise awareness of their importance.
- Working with the fisheries departments as key-message carriers through to Ministers.
- Influencing the major donor agencies (in particular the World Bank –due to its large influence on national policies) to ensure that small-scale fisheries are part of their own agenda (e.g. World Bank Green Books)
- Considering the potential role of “pressure groups”, i.e. International NGOs, civil society, world fora, etc., in influencing the agenda setting and the policy process of national governments.

Draft Research Agenda for Small-scale Fisheries

15. In formulating a draft research agenda for small-scale fisheries, five main research themes were considered:

- a) Policy legislation governance and institutional arrangements;
- b) Contribution, relevance and importance of small-scale fisheries to national economies and livelihood;
- c) Management approaches to small-scale fisheries;
- d) Post harvest issues and trade; and
- e) Information systems for small-scale fisheries.

16. Each theme was introduced by identifying the need for research in terms of the major issues, and then research programmes and topics/questions were developed.

a) Policy and institutional arrangements

17. Policy is the starting point that sets out the broad objectives and framework to guide relevant institutional arrangements, actions and decisions impacting on small-scale fisheries. The Working Party recognized that policy was required to address many, often competing objectives, that relate to resource conservation and sustainable use, economic, social/equity needs. In general, policies for resource use and economics tend to relate to the whole of the fisheries sector, while only social objectives are more directly linked to small-scale fisheries. The main issue is that policy is often poorly articulated both within and outside of the fisheries sector, and this, plus ineffective institutional arrangements in place to implement it, often results in a lack of an appropriate framework to guide fisheries management.

18. Three research programmes - (i) policy formulation, (ii) institutions/organizations and (iii) processes/instruments were developed and will be further elaborated in the draft technical document to be provided to the next meeting of ACFR.

b) Contribution, relevance and importance of small-scale fisheries to national economies and livelihood

19. The major issues under this research theme were outlined in paragraph 11-13 and not repeated here. Research to address these issues recognized the opportunities for the (i) potential of the sub-sector (including post-harvest and small-scale fish trading activities) in rural and national economic development, (ii) their potential for equity and re-distribution (both at national and local levels), and (iii) other social and environmental benefits that could result from a 'healthy' small-scale sub-sector.

c) Management approaches to small-scale fisheries

20. Under this theme, the Working Party recognized that there were many approaches to management of small-scale fisheries ranging from the conventional stock assessment/top down approach through to more modern participatory methods, such as co-management associated with the move to decentralization/delegation of government functions and right-based approaches. It also recognized that managers of a small-scale fishery have a large and diverse number of tools (including allocation, economic and social tools) that could be applied, but that there is little guidance on what may be appropriate and effective. The need to monitor and evaluate progress against fisheries management objectives was also noted and the crucial role of Monitoring, Control and Surveillance (MCS) in small-scale fisheries highlighted. Capacity building was identified as a key element for improving the management of small-scale fisheries.

21. To address these issues, the Working Party formulated a number of research questions addressing (i) Higher level/overarching approaches and concepts (ii) Fisheries management approaches (iii) Management tools (iv) Monitoring and evaluation of management approaches and (iv) MCS.

d) Post-harvest issues and trade

22. Both intra-regional and international trade are becoming increasingly important to small-scale fisheries. This calls for increased investment in post-harvest activities and increased marketing capabilities to benefit from the new opportunities. The decisions on potential trade-offs between export-orientated versus local or regional demand need to be informed. The decentralized nature of small-scale fisheries could result in substantial employment generation, and household food security as well as retention of resource rents by fishing communities if trade opportunities are to be realized.

23. The research topics to address this theme were included in the same structure as the themes on the contribution, role and importance of small-scale fisheries, paragraphs 11-13 above.

e) Information systems for small-scale fisheries

24. While not exactly a research theme in its own right (although there are many research aspects related to it) it was felt that the development of Fishery Information Systems (FIS) warranted separate

attention, as this is a critical component in bridging the gap between research and action and an effective framework for identifying needs of various information users ranging from informing policy decision-makers right through to implementing technology for individual fishers, processors and marketers.

25. The FIS was discussed in the context of examining the needs, data analyses and management, inputs, outputs of different user groups in a hierarchical structure that covered the international, national, district and local levels and the linkages between them, both in aggregating data and information upwards for use at higher levels in the hierarchy and downwards in terms of providing feedback, especially to the suppliers of the data. A range of issues was identified, especially in relation to integrating qualitative and quantitative data, techniques to improve information flow, integrating local knowledge, linkages between levels in the hierarchy, data quality and the need to review and make accessible existing data and information.

Strategies and Mechanisms to Bridge the Gap between Research and Action

26. The Working Party agreed that research was important to inform policies contributing to sustainable small-scale fisheries and could play an important role in empowerment, advocacy, and mobilization of resources. It was recognized that the number and types of end users of research are large and would include policy makers, donor organizations, fishers and fish workers, and civil society organizations.

27. The Working Party pointed out that bridging the gap between research and action could be facilitated by including more stakeholders, especially the end-users in the form of fishers and fish workers, in research. This would make it more demand led and increase ownership, and ensure that results are more likely to be useful for the end users. It was emphasized that research and communication go hand-in-hand and that there is a need for the development of effective communication techniques so that research results can be well presented in a way that is easily understood by the target audience. It was further stressed that in the presentation of research, their implications should be clearly articulated. Good research may not result in appropriate action for political reasons unless the benefits and implications are clearly communicated.

28. The Working Party emphasized the importance of funding as a major influence on the direction of research and support services. It also stressed that funding be allocated also for effective horizontal consultation and co-ordination amongst institutions, stakeholders and civil society organizations. Research will be most relevant and effective if it is embedded in a planning and review process, and this should solve some of the problems of bridging the gap by making research more action-orientated.

29. It was recognized that in many settings, human capacity was insufficient, and must be considered as a crucial and long term requirement to improve the linkages between research and action. In this respect it was suggested that retention and incentives are important issues, and that donor-funded research programmes should include long term aspects of capacity-building.

30. The timing requirements of research are very important. Good research to really understand complex realities takes considerable time, whereas the users of the research may require much quicker delivery. Researchers and end users would need to agree on realistic timeframes for the production of and dissemination of research results.

Key Elements to Include in the Draft Guidelines on Small-scale Fisheries

31. The historical background to this discussion was presented including the consideration by ACFR in 2000 of poverty issues in fisheries and the specific request by the Twenty-fifth Session of COFI, February 2003, that FAO elaborate, in the context of the Code of Conduct for Responsible Fisheries, technical guidelines on increasing the contribution of small-scale fisheries to food security and poverty alleviation.

32. The Code contains references to small-scale fisheries but is perhaps more strongly focused on general fishery management and development issues. To assist in implementing the Code, guidelines are published and disseminated by FAO (not formally adopted by COFI). It was suggested that perhaps at some time in the future, it might be possible to amend the Code itself to better reflect the importance of small-scale fisheries, especially with regard to their potential to make a larger contribution to

poverty reduction and food security. The Working Party was informed that FAO would convene, in 2004, an expert consultation to elaborate the proposed guidelines. In this context, the findings and recommendations of this Working Party will certainly make an important contribution.

33. It was felt important to consider a participatory approach in developing such guidelines and to assess lessons learned from the current extent to which the Code and other guidelines are actually implemented. Future guidelines might need to be field-tested, and should be carefully structured. The Working Party was informed that the Code itself is a codification of previous experience on best practice in fisheries, and if implemented should contribute towards sustainable development.

34. It was considered that it could be a major challenge to account in the guidelines for the wide diversity of different types of small-scale fisheries. For example, it was noted that the small-scale fisheries issues of Small Island Developing States (SIDS) may be rather different from those of other regions. The guidelines might also include aspects related to the communication strategies required to increase awareness about the important role and contribution of small-scale fisheries.

OUTPUTS OF THE MEETING

35. The meeting captured the above outcomes by generating:

- The present administrative report of the meeting;
- Two separate draft technical documents: contribution, role and importance of small-scale fisheries and a draft research agenda for small-scale fisheries including terms of reference on some thematic topics with a checklist of suggested actions to bridge the gap between research and action;
- The Working Party requested that these two documents be published in an appropriate FAO publication series as soon as they are endorsed by ACFR;
- The Working Party agreed that the background papers be published in an appropriate FAO publication series to raise the profile of small-scale fisheries; and
- Because of time constraints, the Working Party could only provide preliminary ideas on key elements to be included in the proposed draft guidelines on small-scale fisheries. Members expressed their willingness to be associated with this initiative, as appropriate.

FUTURE RELATED ACTIVITIES

36. It was agreed that:

- a) The two draft technical documents and the background papers of the meeting should be finalized and be published in an appropriate FAO publication series when endorsed by ACFR.
- b) FAO should continue to support the small-scale fisheries sector, work to produce technical guidelines and develop an adaptive ecosystem approach to fisheries tool box for small-scale fisheries.

ADOPTION OF THE REPORT

37. The report was adopted on 21 November 2003.

AGENDA

Introduction: Administrative and Working Arrangements

Presentation of Background Papers

- Small-scale Fisheries; Past Experience and Future Solutions
- Contribution of Small-scale Fisheries to Rural Livelihoods in a Water Multi-use Context (with a particular emphasis on the role of fishery as “last resort activity” for the poor)
- Improving the Collection, Analysis and Dissemination of Information in Small-scale Fisheries
- Policy Objectives, Legal Frameworks, Institutions and Governance in Small-scale Fisheries
- Promoting the Ecosystem Approach to Fisheries In the Context of Small-scale Fisheries
- Contribution of Fisheries Research to Sustainable Livelihoods of Artisanal Fishing Communities in West Africa
- Concept Paper and Identification of Main Research Topics.

General discussion and definition of small scale-fisheries

- Theme 1** - Contribution, role and importance of small-scale fisheries
- Theme 2** - Elaboration of research agenda
- Theme 3** - Strategies and mechanisms to bridge the gap between research and action
 - Identification of main elements that could figure in Guidelines on small-scale fisheries

Adoption of the Report

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LIST OF DOCUMENTS

ACFR/WP/SSF/I/1	Provisional Agenda and timetable
ACFR/WP/SSF/I/2	Concept Paper for the Advisory Committee on Fisheries Research (ACFR) Working Party on Small-scale Fisheries
ACFR/WP/SSF/I/3	Contribution of Small-scale Fisheries to Rural Livelihoods in a Water Multi-use Context (with a particular emphasis on the role of fishery as “last resort activity” for the poor)
ACFR/WP/SSF/I/4	Small-scale Fisheries; Past Experience and Future Solutions
ACFR/WP/SSF/I/5	Policy Objectives, Legal Frameworks, Institutions and Governance in Small-scale Fisheries
ACFR/WP/SSF/I/6	Promoting the Ecosystem Approach to Fisheries In the Context of Small-Scale Fisheries
ACFR/WP/SSF/I/7	Improving the Collection, Analysis and Dissemination of Information in Small-scale Fisheries
ACFR/WP/SSF/I/8	Contribution of Fisheries Research to Sustainable Livelihoods of Artisanal Fishing Communities in West Africa
ACFR/WP/SSF/I/ Inf. 1	Provisional List of Documents
ACFR/WP/SSF/I/Inf. 2	Provisional List of Participants
ACFR/WP/SSF/I/Inf. 3	The Contribution of Research to the Sustainable Livelihoods of Artisanal Fishing Communities
ACFR/WP/SSF/I/Inf. 4	Preliminary Thoughts on Bridging the Gap Between Research and Action

EXECUTIVE SUMMARY OF THE DOCUMENTS

(i) **Small-scale Fisheries; Past Experience and Future Solutions (R. Mahon and D. Wilson)**

Small-scale management regimes are nearly as unique as small-scale fisheries, though certainly some general lessons about their design can be garnered. In order to describe the development and current condition of small-scale management regimes we chose to begin with descriptions of the small-scale management regimes in place in three geographic locations, the Bay of Fundy, the inland fisheries of Zambia, and the member countries of CARICOM. These descriptions begin by outlining the existing fisheries management agencies in each of the cases, then management measures, stakeholder participation, conflict resolution, resource allocation, monitoring issues are all addressed. The case studies give details about these three unique situations that are then used as examples in the broader discussion that follows.

Drawing on these examples and others, the report addresses several important topics about the design of small-scale fisheries management regimes in general. These include: i) building effective fisheries co-management institutions; ii) ecosystem management; iii) problems associated with small stocks; iv) low perceived value of small-scale fisheries; v) Inappropriately structured, planned and operated fisheries departments for small-scale fisheries.

Issue 1: Building Effective Fisheries Co-management Institutions

Considerable recent research has focussed on what does and does not contribute to strong co-management institutions. The first lesson, perhaps, is that co-management must involve real cooperation. Where co-management is simply a recruiting tool for inexpensive labour to help the government to enforce its fisheries regulations it is unlikely to succeed. Even if the co-management institutions are maintained, they will not make the contribution to effective management that truly collaborative approaches can make. The second lesson is that co-management institutions that are based on the democratic representation of the fishers have more depth and staying power than those that are not.

The problem that governments face when they seek to manage small-scale fisheries is accountability. How can the government know and influence the kinds of decisions and behaviours that are going on at the local level so that they can insure that they reflect the governments priorities for, e.g., the sustainable and equitable use of a large-scale resource. Fishing communities, meanwhile, want to access the governments higher-scale reach and resources. Two reasons why communities want to involve the government in local fisheries management are common. The first is simply a desire for the money and other resources that co-management programmes frequently make available. In such cases, the community will remain motivated to participate in co-management so long as the money is flowing. The second reason is that the community is facing a conflict situation and wants the government to help them deal with it. Effective co-management's will come about when the government can use its authority to contain and channel fisheries conflicts in creative ways. The benefits of co-management are best achieved when the state is willing to surrender real decision making power, including the legitimacy that only the government can bestow, to democratic local institutions, even while holding them accountable for their responses to the needs of the broader society. Such accountability itself can, in fact, increase the effectiveness of co-management institutions when it takes the form of ongoing, outside participation in goal clarification and the evaluation of achievements.

Issue 2: Ecosystem Management

Ecosystem management has emerged in several forms in discussions of fisheries management. Approaching fisheries management from an ecosystem perspective is biologically attractive because of its recognition of the reality that fishing is related to a far broader set of problems than simply the impact of harvesting on populations. It is also enormously challenging. Most scientific approaches to ecosystem management, however, use multi-species models that essentially treat ecosystem management as single species management writ large. This leads to overwhelming measurement and analysis problems. From a social perspective, ecosystem management would also result in an exponential increase in the number of groups that would have a stake in any given decision. In fact, the complexity that the management of the marine ecosystem would entail would likely overwhelm any current management institution. The bottom line from these scientific, social and bureaucratic considerations is that ecosystems are not a unit of management that is congruent with democratic, science-driven management as it is carried out on large scales through government bureaucracies. What cannot be done on large scales, however, may be feasible on small scales. Ecosystem management requires the processing too much biological and social information for large bureaucracies to handle. The ability of institutions on smaller scales to make use of more and more nuanced information suggests that small-scale fisheries are where experiments with real ecosystem management need to begin.

Issue 3: High Diversity of Small Stocks of Low Total Individual Value that does not Justify a Full Conventional Stock Assessment, Target Setting and Enforcement Program

Although small-scale fisheries are often treated as a discrete category, there is in fact a continuum of fishery types from very small, subsistence to enormous, industrial. There may be some value in developing ideas relating to this continuum further as a basis for considering problems of small-scale fisheries. For example, are the types of problems often flagged as relating to small-scale fisheries due to the scale of the fishery, the size/value of the fish stock being exploited or the type of management regime that is often found in situations where small-scale fisheries are prevalent? Taking the above three dimensions may provide a useful framework for considering small-scale fisheries issues. Issue relating to these dimensions and their implications for management are discussed. Inventory of the relative distribution of stocks in this framework would provide the context for a research program on small-scale fisheries that focussed on the relevant characteristics. For small size/value stocks there is the need to develop approaches that are indicator-based rather than conventional stock assessment, use reference directions rather than targets and emphasise consensual processes.

Issue 4: Low Perceived Importance of Fisheries in General and Small-Scale Fisheries in Particular

In CARICOM countries, with the exception of shrimp fisheries in Guyana and Suriname, and lobster and conch fisheries in Belize, fisheries are generally perceived to be of low importance relative to other productive sectors. One reason suggested is that Fisheries Divisions are usually situated in ministries that are primarily concerned with agriculture. The backgrounds of the Chief Technical Officer, Permanent Secretary and Minister are usually agriculture related. Furthermore, because fisheries are mainly small-scale and often rural, fishers are usually from the lowest economic strata and have little voice, except when there are crises. By and large, small-scale fishing is perceived by planners and decision-makers as a subsector that takes care of itself. Proper economic valuation of the value of small-scale fisheries in national economies would go some way towards redressing this situation. In countries with tourism, this must include the value-added by providing inputs to tourism. Often these are counted under tourism earnings. However, knowing the value although necessary is not sufficient. There is the need to communicate this to decision-makers and the public at large.

Issue 5: Small Poorly Managed, Unplanned Fisheries Departments that do not have the Range of Expertise Needed to Conduct Conventional Top Down Management Using Assessment-Based Targets

Problems relating to the actual organisation and operation of fisheries departments in countries where small-scale fisheries are predominant may be one of the major reasons for the poor management of these fisheries. In summary, the structure and function of developing country fishery departments based on levels of financial support that are appropriate to the value of resources to be managed have not been systematically addressed. Similarly, although the need for improved planning and review processes is frequently identified, there is little to guide managers in these areas. Consequently, systematic action to address these issues has been minimal. This is an area within which there is great potential for input from the field of organisational change management and public administration. In addition to exploring the most appropriate model for fisheries departments of various sizes and with a mandate for various levels of resource value, there is the need to consider the relative capacity that should be established in national and regional institutions. The matter of how fisheries departments are run and of accountability bears further exploration. When there is no plan that sets priorities for a period and is reviewed on a regular basis, there is scope for a great deal of *ad hoc* activity on the part of fisheries department staff. In summary, the structure and function of developing country fishery departments based on levels of financial support that are appropriate to the value of resources to be managed have not been systematically addressed. Similarly, although the need for improved planning and review processes is frequently identified, there is little to guide managers in these areas. Consequently, systematic action to address these issues has been minimal.

(ii) **Contribution of Small-scale Fisheries to Rural Livelihoods in a Water Multi-use Context (with a particular emphasis on the role of fishery as “last resort activity” for the poor)**
(C. Bene)

Since the mid-eighties, the importance of small-scale fisheries in rural development has been widely recognised by academics, practitioners and development agencies. However, despite an increasing number of research and development programmes, the role played by small-scale fisheries in the rural development of coastal or riverine area communities is still poorly understood. It is in particular widely recognised that a more systematic framework is needed which could help to better evaluate the real contribution of small-scale fisheries to the sustainable socio-economic development of rural populations in developing countries.

The present document is an attempt to contribute to this improvement. In particular, its main objective is to address the question of the “Role of small-scale fisheries in multiple use of coastal, estuarine and inland waters”. For this purpose, it relies essentially on an overview of the sectoral interactions between small-scale fisheries and the other rural activities and discusses how those interactions may affect the livelihood of fisheries-dependent populations in developing countries. A special emphasis on the potential role played by artisanal fisheries in poverty alleviation is made. For its largest part, the analysis is conducted from a Sustainable Livelihood Approach perspective -although the principles of this approach are not detailed here.

The paper is articulated in four main sections, as follows. First, an overview on small-scale fisheries and livelihood of fisheries-dependent communities in developing countries is proposed. Using a livelihood analysis-based approach, we show how the contribution of fisheries to household livelihoods is not simply a function of the time (labour) involvement shared between the different members of the household but rather a function of the combination of fishing assets they have at their disposal (including the status of the local ecosystem and its fish stocks), and the rules and other socio-institutional mechanisms which govern the access and use of those assets. Combining the index of human involvement (investment of labour and/or human assets, e.g. skills) adopted in the conventional approach with an index of ‘capital’ investment (physical and financial assets) allows us to build up a new two-dimensional framework which captures and illustrates in a more comprehensive way the very wide spectrum of contributions that fishing may offer as part of the households’ livelihood strategies.

Second, the paper presents and discusses the issue of water multi-use and its impact on fishing activity and fishery-dependent communities livelihoods. Based on a typology of interactions including 5 categories (conflict, neutral multi-uses, compromises, complementary uses and collaborations) we show through a series of case-studies that the water multi-use interactions taking place between the different water stakeholders are not systematically of conflictual nature. Of particular importance is the case of complementary interactions. The review of the literature reveals, however, that empirical studies analysing how these complementary interactions evolve are cruelly missing. The main reason for this gap is that fishery has been considered too frequently from a mono-sectoral point of view (both by scholars and deciders), despite the fact that the multi-activity-based livelihoods of most fisher-farmers of riverine or floodplain environments have been recognised for many decades. A series of conclusions are then derived, which identify domains of investigation for further research.

Third, the issue of valuation and information use in fishery policy is discussed. It is first recalled that the gap of knowledge and lack of proper valuation which characterises small-scale fisheries in most part of Africa, Latin America, and -to a lesser extend- Asia, is usually presented as the main constraint for the design of appropriate fishery policy, both at regional and national levels. It is argued however in this paper that this perception –which tends to explain the lack of appropriate policies and planning by the poor abilities of practitioners and academics to properly evaluate the true social and economic values of small-scale fisheries-, hides another important dimension of the problem. The experience shows, indeed, that the generation of (more) information is not systematically a sufficient condition to support a more appropriate agenda setting and to ensure the implementation of successful policies. The impact of social/economic information generated through a better (e) valuation process is not merely determined by the quality of that information, but also to a large extent by the nature of the policy environment.

The second part of the section reviews the different valuation methods which are potentially applicable to the evaluation of artisanal fisheries, and discusses their respective rationales and limitations within a multi-uses, multi-users context. A specific emphasis is given in this review to the livelihood analysis approach, and in particular to how this recently developed approach fits into the more general socio-economic framework and how it may complete the other, more conventional, environmental economics methods.

Finally the specific question of poverty alleviation in small-scale fisheries is raised in the last section of this paper. More specifically, the role played by fisheries as an “activity of last resort” for the poorest is addressed and carefully discussed. First the prevalence of this paradigmatic perception is emphasised through a thorough review of the fisheries literature. Second a more in-depth analysis shows how this pro-poor capacity of small-scale fisheries to sustain poor people results in fact from the combination of two distinct mechanisms: (1) the 'redistributive' dimension of fisheries, i.e. the fact that fishing activities appear very often to be of greater importance to the poor in terms of income, food security and employment than for the non-poor. Within this approach, fishing is considered as a fundamental 'pillar' on which poor families facing chronic (long-term) destitution rely to sustain their livelihoods; and (2) the 'safety-net' capacity of fisheries, i.e. the fact that in period of individual or collective economic crisis, fishing may also provide alternative or additional sources of income, employment and food for the households – poor and less-poor – whose livelihoods have been temporarily reduced or affected by the crisis. Those two mechanisms are then analysed and discussed, and needs for further research associated to this role of “activity of last resort” are highlighted.

(iii) **Improving the Collection, Analysis and Dissemination of Information in Small-scale Fisheries (C. Ninnes)**

This paper considers the evolving “pro-poor” development policy framework, the impact this has on developing country national policy frameworks and how these collectively influence the demands for data and information from fisheries information systems (FIS) in support of small-scale fisheries management.

The translation of new pro-poor policy frameworks and the requirement for policy coherence across sectors provides the context within which sectoral policy for small-scale fisheries operates. To ensure

that these policies can be translated coherently has profound implications for the role, responsibilities and functions at all levels of governance and hence of the supporting FIS.

Many former DOF responsibilities are now being implemented at local government level and DOF needs information to facilitate, support and monitoring these transformed roles. In some instances the information requirement will remain the same as when DOF had such responsibilities, the difference is that the responsibility for the collection, analysis and use of this information takes place at the local-government level. In other instances the information requirements are clearly different.

Within the new pro-poor policies the social development aspects of fisheries policy take on a much more important role given the macro-economic focus on poverty reduction. The FIS must have the ability to measure change as a result of the implementation of those policies. This will almost certainly require new types of indicators to be collected by the FIS to measure progress in the sector or to collect information that will allow integration with other information systems that allow sectoral impact on poverty to be measured.

While increasing involvement of resource users in the management of small-scale fisheries are important goals of the changing policy environment their implications for FIS are also significant. It is clear given the complexities that there is no one generic approach that can be applied for all potential co-management scenarios. Different approaches will demand that government and the resource user assume different responsibilities for the scale, type and format of information provided in support of management decision making. Even where all decision making is delegated to the resource user, government will still have a monitoring mandate to ensure resource sustainability and that poverty agendas are being met.

Before co-management can be effective, strategic consultations need to be taken to determine the scope and scale of the management units and of the management arrangements to be established. Despite the commitment to increased community empowerment many national and sectoral authorities have not engaged in such strategic consultations. This results in ad hoc arrangements becoming established, which may be to the detriment of the long-term sustainability of co-management as a national policy tool to eradicate poverty.

To address the shortcomings identified within many FIS a number of guidelines are proposed that will allow the (re)design process to be placed into the broader national context, as opposed to taking a purely sectoral perspective. These guidelines identify fundamental design characteristics, how to undertake the (re)design process and how to ensure that both effective and efficient FIS result. The final section of the paper highlights areas where the donor community can assist in implementing these guidelines.

Throughout this paper the use of data and information within fisheries management is considered a process and the use of the term FIS throughout this document is considered to explicitly represent this process. It is not a short-hand for solutions based on technology only. This process is initiated when an information need is first identified that is coherent with the macro and sectoral policy framework, continues with the collection of data, its subsequent management and analysis into information, through to its dissemination, communication and use in furthering the fisheries management knowledge base. Annex 1 captures this process diagrammatically.

(iv) **Policy Objectives, Legal Frameworks, Institutions and Governance in Small-scale Fisheries (G. MacFadyen)**

This paper is presented to the FAO Advisory Committee on Fisheries Research (ACFR) Working Party on small-scale fisheries for its consideration. It explores the priority given to small-scale fisheries as reflected in policy objectives set specifically for the sector, the extent to which these objectives are reflected in legislation and perhaps most importantly, the extent to which such objectives and legislation are reflected in management actions. The paper also comments on particular challenges that small-scale fisheries present in adhering to the FAO Code of Conduct for Responsible Fisheries (CCRF). The relative importance given to small-scale fisheries in different countries is further explored by considering the degree to which small-scale fishers are involved in policy formation and management actions, how issues of conflict between small-scale fisheries and other sectors are dealt

with, and the extent to which incentives and subsidies are provided to sector. The paper presents a number of research topics related to these issues that are felt to be of importance.

The paper is based primarily on information collected and analysed from 40 small-scale fisheries practitioners from around the world, in response to a questionnaire prepared and sent to those indicating they would be prepared to complete it. The paper also presents an interesting case study on Sierra Leone, which is especially pertinent to many of the questions raised in the paper and the associated Terms of Reference.

In most countries policy contains conservation/resource, economic, social and equity objectives, with comment on the different methods and strategies to achieve these objectives. Conservation and resource objectives are most commonly generic objectives for the sector as a whole, and not specifically for small-scale fisheries. This is also true of economic objectives, but where these are related to individual sectors, they more commonly refer to industrial rather than to small-scale fisheries. Social and equity objectives pertaining to small-scale fisheries are generally well reflected in policy documents in most countries.

All of these different types of policy objectives generally feed through well into legislation, although the extent of legislation is perhaps greatest for conservation and resource objectives. Economic, social and equity objectives are also generally supported by legislation, but to a lesser extent. Legislation relating to industrial activity, and which benefits small-scale fisheries in support of social and equity objectives, is especially common in the form of legislation relating to bycatch reduction and utilisation, as well as to area and seasonal bans for industrial vessels. It may not be appropriate or necessary to reflect all policy objectives in legislation if codified oral rules or traditional management practices are in place, or if policy objectives can be fulfilled through the use of economic instruments.

Experience suggests that in many countries it is in the implementation of policy and legislation that the link between policy, legislation, and management breaks down. Sometimes this is the result of poor monitoring, control, and surveillance, and management failure in general, due to insufficient financial resources, inadequate human capacity development, and/or a lack of adequate integration of policy and management action with non-fisheries sectors. In others it is certainly the result of the low priority given to the sector compared to industrial fisheries. Fisheries have economic, social, technical, cultural, political, biological and ecological components, and these components often lead to conflict. Conflicts may arise between sectors (e.g. small- and large-scale fisheries, or fisheries and other sectors), or between policy objectives. A particular cause of the failure of management action to support small-scale fisheries is that such conflicts are often not dealt with explicitly in the planning process. The failure to plan for such conflicts and to mitigate their impacts, at least as far as is possible, often results either in complete inaction when conflict arises, or means that political influences and power relations come to bear in such situations to ensure that large-scale interests benefit to the detriment of small-scale fishers. Even if such conflicts are acknowledged at the planning stage, for example through area or seasonal trawl bans to protect small-scale fishing interests, general management failure and power relations may still conspire to adversely impact on small-scale fisheries.

While not a panacea for all these problems, management action to support the interests of small-scale fishers is likely to be more effective where such interests are involved in formal policy formation and decision-making with the government, e.g. through co-management approaches or meaningful involvement of small-scale fisheries' interests in policy development. This can help to ensure that conflicts and trade-offs are explicitly confronted at the planning stage and that their interests are more likely to be represented, but also that small-scale fisheries stakeholders share a greater sense of ownership of policy and are more likely to be aware of it and support necessary management action. However, questionnaire responses provided as part of this study suggest that many countries do in fact have structures or processes in place to involve small-scale fisheries interests in policy formation and the decision-making process. This begs the question as to why management action, even in these countries, does not appear to better support small-scale fisheries. It suggests that political influence and general management failure for the reasons stated above may be at least as important in causing poor management as a lack of involvement of small-scale fishers in policy formation and decision-making.

Many countries provide subsidies to small-scale fisheries, most commonly in the form of import-tax exemptions and provision of credit on favourable terms. However, while some studies have been

completed on subsidies in small-scale fisheries, knowledge of the extent of their use, their costs and benefits, which types are most commonly used, and the potential impacts of removing them remains extremely thin. There is also little research done prior to the introduction of subsidies to justify their use through the quantification of their costs and benefits.

Taking into account the above, a number of other areas of future research are also suggested. Perhaps most importantly is the need to consider how small-scale fishers can be more effectively brought into the policy formation and decision-making process, but also the extent to which such involvement is likely to result in policy, legislation and management action that support their interests. Greater involvement should result in wider recognition of the potential trade-offs and conflicts between sectors and policy objectives, and dealing with such conflicts at the planning stage is considered important for effective management and reduced user conflict. However, the potential implications of trade-offs between objectives, particularly in terms of their distributional impacts/benefits remains to be better explored and clarified.

Involvement of small-scale fishers in policy formation and decision-making is itself unlikely to solve all the current management problems adversely impacting on small-scale fisheries. Human capacity building at all levels to ensure good fisheries governance is also a pre-requisite, and further research is required into the most effective methods of developing such capacity. Other important areas of research include reasons for the failures (and successes) in the policy/legislation/management linkage, and effective economic instruments that could be used to support better fisheries management.

(v) **Promoting the Ecosystem Approach to Fisheries in the Context of Small-scale Fisheries**
(B.P. Satia)

This paper articulates the combined use of the Sustainable Livelihoods Approach (SLA) and the Ecosystem Approach to Fisheries (EAF) in promoting ecosystem considerations in Small-Scale Fisheries (SSF). The paper points out that EAF and SLA have much in common both in what they aim to achieve and the approach they adopt, and that the strong similarities between the two approaches justify their combined use in promoting effective SSF management in an ecosystem context.

EAF could supplement the SLA in specific instances concerned with the conservation and management of natural capital and with transforming policies, institutions and processes (PIP) related to the sustainable use of aquatic living resources by SSF. Conversely, the SLA could complement the EAF implementation in the rural, small-scale fishery sector where specific approaches are needed, in particular, when assessing potential impacts of policies and finding support for their implementation.

It is suggested that policy related research undertaken by multidisciplinary teams, including scientists/experts outside the fisheries sector and local scientists, through case studies, research on participatory methods, and of what indicators are appropriate in relation to SSF as well as studies on how to integrate good information from various sources including local knowledge and scientific information and data would be appropriate ways to increase our understanding on how to maximize returns, both for human and ecological well being, by using these combined approaches in small-scale fisheries.

The paper is in five parts. Part I outlines the origins and justification for this paper. Part II briefly describes EAF and SLA and outlines the similarities between the two approaches in the perspective of their possible use in SSF and compares, in a tabular format, the FAO Code of Conduct for Responsible Fisheries (the Code), EAF and SLA. In Part III, the paper identifies the main entry points of EAF in SLA and in Part IV suggests key areas which require research and emphasis to facilitate the combined use of EAF cum SLA in SSF. Part V, the Conclusion, refers to the benefits of combining the two approaches in SSF but also cautions that the process will take time and there will be trials and errors, with greater demands for training on these evolving paradigms.

(vi) **Contribution of Fisheries Research to Sustainable Livelihoods of Artisanal Fishing Communities in West Africa (K. Hussein and J. Zoundi)**

In September 2001, the Sustainable Fisheries Livelihoods Programme (SFLP) commissioned this study of the contribution of research to the sustainable livelihoods of artisanal fishing communities. The study covers six countries in the region: Cameroon, Nigeria, Mali, Guinea, Senegal and Mauritania. It was based on the following observations: that linkages between artisanal fishing communities, policies and institutions and research are generally weak; and that research does, nevertheless, have an important contribution to make in improving livelihoods through the generation of knowledge and technological innovations.

The overall study was co-ordinated by two international specialists in research-resource user linkages and national studies were implemented by the national fisheries research institute in each country, through multidisciplinary research teams involving representatives from research institutes, government policy departments, NGOs and private sector consultancies. Each country team produced 4 interim reports covering the core study themes: (i) identification of key livelihood groups involved in artisanal fisheries; (ii) evaluation of the existing potential of fisheries research at the national level (including social science research on fisheries) and eventual contribution to livelihoods, and analysis of existing linkages between research and fisheries resource users; (iii) study of the effects of policies, institutions and processes (PIP); and (iv) identification of key lessons and activities to improve research-user linkages so as to increase the contribution of research to artisanal fishers' livelihoods. The methodology drew on core SL principles (e.g. partnership, participation; multidisciplinary analysis and macro-micro level linkages) and involved a process of validating results with a range of actors at national level.

This overview presents some key issues that emerge from the six detailed country studies, highlights lessons identified, and identifies priority recommendations to improve the contribution of research at the national and sub-regional levels.

Key issues

Livelihood groups in artisanal fishing. The study revealed the great diversity in livelihood groups that use or depend on artisanal fisheries resources for a living. These range across upstream and downstream aspects of production – from fisherfolk through to traders and boat mechanics. There is some gender specialisation of tasks and varying degrees of migration – the most important aspect of which is the need to migrate in order to follow a moving resource. Attempts to analyse the degree of vulnerability of each group reveal a wide range of factors affecting vulnerability in each context. Surprisingly perhaps, while in certain contexts fishers have the potential to gain the highest surplus, they have to make the heaviest capital investments and are often the most vulnerable group. The Nigeria study attempted to reflect this by developing a quantitative analysis of the costs of vulnerability.

Research providers. In each country, it is clear that a wide range of actors is involved in fisheries research. These include public sector research institutes, State funded universities, international NGOs, the private sector and development programmes. Some strengths in fisheries research are identified: incorporation of research themes on artisanal fisheries following participatory processes; existence of formal and in some cases informal frameworks for collaboration between the different actors in the sector; changing status of research institutions that encourage researchers to be more innovative and oriented towards development (e.g. Mali and Senegal). However, partnerships between actors are patchy. Further, in most cases there is a deficiency in capacities for socio-economic analysis and limited experience in participatory research. In all countries national research institutes are DFID-FAO ~ SFLP/FR/14 iii hampered by a major funding crisis that also undermines the contribution of agricultural research more broadly to development and improved livelihoods across the developing world.

Policies, institutions and processes. The existence and effectiveness of mechanisms for fisheries research to contribute in the area of PIP vary. Nonetheless, the study shows clearly that fisheries research has the potential to make a strong contribution: enabling policy makers to make informed

decisions, formulate appropriate laws on resource use and contribute effectively to wider processes (e.g. international negotiations of fisheries resources). However, public research institutions have taken a long time to adapt to the requirements of a development orientation and general factors in the PIP context have constrained their ability to contribute to improved livelihoods: e.g. structural adjustment has led States to reduce their investment in research such that it becomes ever more dependent on dwindling international funds.

Lessons and implications

Ten principal lessons are identified:

1. Despite deficiencies noted, there has been a positive evolution in thinking and approaches in research institutions covering fisheries in the last decade (e.g. addressing PIP issues; move towards a development orientation).
2. Promotion of local rules for fishery resources management with high involvement of local communities
3. Producer organisations in artisanal fisheries are generally weak when compared to those that exist in other natural resources sectors such as agriculture and animal production.
4. Fisheries research has contributed substantially to the improved livelihoods of fisheries communities and to addressing issues in the policy and institutional context (e.g. providing information and innovations to policy makers).
5. It will be possible to capitalise more on the contribution of socio-economic research, for example in strengthening the capacities of fisheries communities.
6. Several countries do not place high priority on fisheries research, and their sectoral allocation of resources prioritises other areas of production. Furthermore, there is a general financing crisis faced by agricultural research.
7. Fisheries research institutes have found it difficult to develop effective demand-driven approaches to research.
8. There are very few examples of direct partnerships between research and fisheries communities or their representatives.
9. There is a general lack of mechanisms, or frameworks, for communities to learn from research – much due to failures in extension.
10. Incoherence of some government policies may be having negative effects on artisanal fishers' livelihoods (e.g. support in principle for the profession of artisanal fishing, but promotion in practice of increased industrial fishing).

Actions needed

Fifteen actions needed to improve the contribution of research to artisanal fishers' livelihoods are identified. Priority actions are grouped under four headings:

- Strengthen the institutional, management and strategic planning capacities of socio-professional organisations in the artisanal fishing sector.
- Strengthen or establish mechanisms for partnerships between research and fisheries communities.
- Strengthen the capacities of fisheries research institutions (e.g. sustainable financing; improved skills, particularly in social science and participatory approaches).
- Strengthen the contribution of fisheries research to policies and livelihoods (e.g. creation of a liaison body bringing together representatives from research, policymakers and artisanal fishers; establishing mechanisms to apply research results to constraints and opportunities that exist at the community level).

Recommendations

Drawing on the analysis of the country studies presented in this report, the authors make seven recommendations to the SFLP in order to improve the contribution of research and bring about changes in practice.

1. Publication of this overview report and broad dissemination in hard copy to research institutions, policymakers and development actors in all 25 countries involved in the SFLP. This report should also be made available through the web.
2. Dissemination of study results in the 19 programme countries that did not participate in this study through sub-regional workshops involving representatives from research, extension, artisanal fisheries resource users, NGOs, private sector). This activity can be undertaken through or with the support of sub-regional and international networks.
3. Provision of funds in study countries for pilot activities to support partnerships between research and communities for the participatory development of innovations.
4. Training for research institutions in participatory approaches in countries where such a need is expressed.
5. Improve capacities of research institutes to communicate results effectively, even through new media (e.g. radio).
6. Strengthen country level capacity for analysing the impacts of fisheries research.
7. Encouragement to governments to foster national debate on improving the orientation and sustainable financing of fisheries research.

Immediate follow-up

Drawing on the analysis and recommendations above, five suggestions are made for immediate follow up to this study, identifying actors responsible and strategy.

Sub-regional level

- i) Publication and dissemination of this overview report (by RSU before end September 2002).
- ii) Share lessons from the study in the 19 other countries covered by the SFLP through two to three sub-regional workshops (by RSU before end October 2002).
- iii) Identify priority actions to implement as part of country level programme initiatives according to classification of priorities at Programme-wide level (by RSU before end December 2002).

National level

- i) Editing, publication and distribution of a hard copy of the detailed national reports (by NCU in each country before end July 2002).
- ii) Drafting and dissemination of Advisory Notes to decision-makers.
- iii) Organisation of national multi-stakeholder workshop to consider the implementation of recommendations and the responsibilities of each actors (by NCU in each country before end October 2002).

This synthesis report, the six country reports and Advisory Notes for decision-makers, provide tools that can be used to guide changes in the organisation of fisheries research. They might also serve to underpin proposals for actions to enhance the role of fisheries research both in policy and at the level of the livelihoods of artisanal fishing communities.

vii) **Concept Paper and Identification of Main Research Topics (D. Staples)**

The purpose of this paper is to provide a framework to aid discussion for FAO's Advisory Committee on Fisheries Research (ACFR) Working Party on Small-scale Fisheries. In particular, following the ACFR recommendations the paper addresses:

1. *elaborating a draft research agenda;*
2. *undertaking an evaluation of the role and importance of small-scale marine fisheries; and*
3. *outlining ways in which the transition to responsible fisheries can be facilitated, bearing in mind the developing paradigm of the ecosystem approach to fisheries (EAF).*

The framework for elaborating a draft research agenda is based on identifying a number of issues pertinent to small-scale fisheries and then providing a lead to possible research activities. The list is not exhaustive, but hopefully, sufficient to initiate and structure discussion.

After presenting a conceptual framework for small-scale fisheries that stresses the importance of considering factors both within the sub-sector, and external to the sub-sector, the following issues were identified:

- Effectiveness of development policy to small-scale fisheries;
- Measurement and understanding causes of poverty;
- Competing policy goals;
- Profile of small-scale fisheries in national policies and international development initiatives;
- Tailoring fisheries management to small-scale fisheries;
- Impacts of globalisation and increased fish trade; and
- Technological advances.

In reference to the second task presented above, the paper highlights the serious lack of reliable information on small-scale fisheries and suggests some approaches that could be used to overcome this deficiency. Lastly the paper describes ways that the transition to responsible fisheries can be facilitated, highlighting the importance of communicating research results and also in adopting more participatory fisheries management approach that considers fishing in the context of a larger system (ecosystem) and recognising the need to satisfy the goals and aspirations of a wide range of uses and users (ecosystem approach to fisheries).

The Second Session of the Working Party on Small-scale Fisheries of the FAO Advisory Committee on Fisheries Research (ACFR) was held in Bangkok, Thailand, from 18 to 21 November 2003. The session agreed on a vision statement and on a characterization of small-scale fisheries as well as on a research agenda of five main themes. It elaborated preliminary drafts of two separate technical documents on the contribution, role and importance of small-scale fisheries and research agenda for small-scale fisheries and requested that the documents be submitted, after finalization by the Secretariat, to the ACFR at its next session.

ISBN 92-5-105099-6 ISSN 0429-9337



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TR/M/Y5245E/1/02.04/1000