

**Report of the**

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**INCEPTION WORKSHOP OF THE FAO EXTRABUDGETARY  
PROGRAMME ON FISHERIES AND AQUACULTURE FOR POVERTY  
ALLEVIATION AND FOOD SECURITY**

**Rome, 27–30 October 2009**



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## PREPARATION OF THIS DOCUMENT

This is the final report of the Inception Workshop of the FAO Extrabudgetary Programme on Fisheries and Aquaculture for Poverty Alleviation and Food Security which was held at FAO headquarters, Rome, Italy, from 27 to 30 October 2009.

FAO.

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### ABSTRACT

The Inception Workshop of the FAO Extrabudgetary Programme on Fisheries and Aquaculture for Poverty Alleviation and Food Security (Rome, 27–30 October 2009) was held to generate inputs and guidance to the contents and process of developing an assistance programme for fisheries and aquaculture encompassing both normative activities and country-level support. The overall goal of the programme is to ensure that responsible and sustainable use of fisheries and aquaculture resources make an appreciable contribution to human well-being, food security and poverty alleviation. The workshop participants agreed with the main thrust and themes of the programme which were considered relevant and comprehensive. There were clear linkages between these themes that needed to be carefully reviewed in the light of previous experiences and the outcomes of this workshop to fill gaps, avoid duplication and ensure coherence among the different programme components. There is a need to bring fisheries and aquaculture (with a special focus on small-scale producers and post-harvesters) higher up on the poverty alleviation, food security and disaster risk reduction (DRR) agendas, and to raise the profile of the sector through better data and information on its contribution at household, local and national levels. Fisheries and aquaculture sector policies and programmes should be informed by a human rights approach to development that is pro-poor and gender sensitive. There are close links between climate change and the programme themes. DRR and climate change adaptation both strive to increase resilience. By increasing the social and economic resilience of small-scale fishers, fish farmers and fish workers through, *inter alia*, improving governance and taking a holistic approach to supporting livelihoods, their ability to adapt to climate and other global changes will be strengthened. However, the challenges to advance the poverty alleviation and food security agenda are considerable. Concerted efforts and partnerships at different levels and scales are needed (e.g. between partner countries, governments and communities, as well as donors). It is also vital to build up national and local ownership in accordance with the Paris Declaration and this should be a key requirement for the inception phase and beyond.



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## ABBREVIATIONS AND ACRONYMS

ASEAN	Association of Southeast Asian Nations
BCC	Benguela Current Commission
BMP	best/better management practice
BOBP-IGO	Bay of Bengal Programme Intergovernmental Organization
CBD	Convention on Biological Diversity
CDEMA	Caribbean Disaster Emergency Management Agency
CENPAT	Centro Patagónico Conicet (Argentina)
CERMES	Centre for Resource Management and Environmental Studies
CGIAR	Consultative Group on International Agricultural Research
COFI	Committee on Fisheries (FAO)
COP 15	UN Climate Change Conference, Copenhagen, December 2009
CPP	Cyclone Preparedness Programme (Bangladesh Red Crescent Society)
CPPS	Permanent Commission for the South Pacific
CRFM	Caribbean Regional Fisheries Mechanism
CRTR	Coral Reef Targeted Research
CSF	Committee on Food Security
CSOs	Civil Society Organizations
DFID	Department for International Development of the United Kingdom
DRM	disaster risk management
DRR	disaster risk reduction
EAA	ecosystem approach to aquaculture
EAF	ecosystem approach to fisheries
EBCD	European Bureau for Conservation and Development
FIDP	Programme Coordination Unit (FAO)
FIE	Fisheries and Aquaculture Economics and Policy Division (FAO)
FIEP	Development and Planning Service (FAO)
FIES	Fisheries and Aquaculture Information and Statistics Service (FAO)
FII	Fish Products and Industry Division (FAO)
FIIT	Fishing Technology Service (FIIT)
FIM	Fisheries and Aquaculture Management Division (FAO)
FIMA	Aquaculture Management and Conservation Service (FAO)
FIMF	Fisheries Management and Conservation Service (FAO)
GDP	gross domestic product
GEF	Global Environment Facility
GFDRR	Global Facility for Disaster Reduction and Recovery
GLOBEC	Global Ocean Ecosystem Dynamics Programme
ICES	International Council for the Exploration of the Sea
ICFA	International Coalition of Fisheries Associations
ICSF	International Collective in Support of Fishworkers
IGO	Intergovernmental Organization
IM	integrated management
INPESCA	Istituto Nicaragüense de la Pesca y Acuicultura
IOC	Intergovernmental Oceanographic Commission
IUCN	International Union for Conservation of Nature
IUU fishing	illegal, unreported and unregulated fishing
LME	large marine ecosystem
M&E	monitoring and evaluation
MAGAP-SRP	Ministerio de Agricultura, Ganadería, Acuicultura y Pesca – Subsecretaría de Recursos Pesqueros (Ecuador)
MDGs	United Nations Millennium Development Goals
MPEDA	Marine Product Export Development Authority (India)
MSC	Marine Stewardship Council
NACA	Network of Aquaculture Centres in Asia

NACEE	Network of Aquaculture Central Eastern Europe
NaCSA	National Centre for Sustainable Aquaculture (India)
NEPAD	New Partnership for African Development
NGO	Non-governmental Organization
NORAD	Norwegian Agency for Development Cooperation
OECD	Organization for Economic Co-operation and Development
OIE	World Organization for Animal Health
OSPESCA	Organización del Sector Pesquero y Acuícola del Istmo Centroamericano
PaCFA	Global Partnership on Climate, Fisheries and Aquaculture
Paris Declaration	The Paris Declaration on Aid Effectiveness
PICES	North Pacific Marine Science Organization
PIU	Project Implementation Unit
PRSP	Poverty Reduction Strategy Paper
REBYC-1	Reduction of Environmental Impact from Tropical Shrimp Trawling through the Introduction of Bycatch Reduction Technologies and Change of Management project
SEAFDEC	Southeast Asia Fisheries Development and Education Center
SFLP	Sustainable Fisheries Livelihood Programme
Sida	Swedish International Development Cooperation Agency
SLA	Sustainable Livelihoods Approach
SMU	Saint Mary's University (Halifax, NS, Canada)
SPC	Secretariat of the Pacific Communities
SSA	small-scale aquaculture
SSF	small-scale fisheries
TAC	total allowable catch
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFCCC	United Nations Framework Convention on Climate Change
UNISDR	United Nations International Strategy for Disaster Reduction
WSSD	Johannesburg World Summit on Sustainable Development

## EXECUTIVE SUMMARY

The *Inception Workshop of the FAO Extrabudgetary Programme on Fisheries and Aquaculture for Poverty Alleviation and Food Security* was held in Rome from 27 to 30 October 2009. The workshop was attended by 33 external participants and a number of FAO staff, including from subregional and regional offices. The agenda included plenary presentations and discussions as well as small group discussions.

The purpose of the workshop was to generate inputs and guidance to the contents and process of developing a global FAO programme for fisheries and aquaculture encompassing both normative activities and country-level assistance. The overall goal of the programme is to ensure that responsible and sustainable use of fisheries and aquaculture resources make an appreciable contribution to human well-being, food security and poverty alleviation. This programme is proposed to have the following components:

1. increased contribution of small-scale fisheries and aquaculture to poverty alleviation and food security;
2. sustainable production for optimal societal benefits through implementation and development of the ecosystem approach to fisheries and aquaculture; and
3. reduced vulnerability of fishing and fish farming communities to natural disasters and climate change.

The FAO Fisheries and Aquaculture Department hopes to attract external funding to allow for a comprehensive and effective programme. The Swedish International Development Cooperation Agency (Sida) is providing financial support to the inception phase and programme development.

The presentations and discussions of the workshop were detailed and covered a broad range of issues relevant to the development of the programme. The following summarizes the conclusions and recommendations of the workshop:

- The three themes proposed for the global programme on fisheries and aquaculture for poverty alleviation and food security are comprehensive and relevant. There are also clear linkages between them, and food security, poverty alleviation and sustainable use of natural resources are all interlinked. Still, the themes should be carefully reviewed in the light of previous experiences and the outcomes of this workshop to fill gaps, avoid duplication and create coherence among the different programme components.
- There is a need to bring fisheries and aquaculture (with a special focus on small-scale) higher up on the poverty alleviation, food security and disaster risk reduction (DRR) agenda, and to raise the profile of the sector. To do this, better baseline information is needed and key indicators should be identified. The contribution of the sector to nutrition is such a key indicator, but not the only one. Methods for collecting the relevant information are likely to exist but they need to be applied to small-scale fisheries and aquaculture, and DRR.
- There are close links between climate change and the proposed programme themes. DRR and climate change adaptation both strive to increase resilience. By increasing the social and economic resilience of small-scale fishers, fish farmers and fish workers through, *inter alia*, improving governance and taking a holistic approach to supporting livelihoods, their ability to adapt to climate and other global changes will be strengthened.
- A pro-poor programme does not exclude large-scale fisheries and aquaculture, e.g. with regard to the implementation of ecosystem approach to fisheries (EAF)/ecosystem approach to aquaculture (EAA), but the focus on poverty alleviation and food security should be clear and the small-scale sector should be given special attention.
- To achieve sustainable results, interventions need to be firmly anchored in the regional, national and local context.
- To capitalize on the potential contribution of small-scale fisheries and aquaculture's contribution to poverty alleviation and food security, a not only cross-sectoral but holistic and integrated approach is needed that is aligned with the reality of local livelihoods.

- Related to the necessity of holistic approaches, there is a need to include small-scale fisheries and aquaculture in overarching national plans for poverty reduction, food security strategies or DRR plans and vice-versa.
- Fisheries and aquaculture sector policies and programmes should be informed by a human rights approach to development that is pro-poor and gender sensitive.
- The reality and different facets of poverty need to be understood and taken into account. Livelihoods in fishing and fish farming communities are complex and diverse, including a range of coping strategies for dealing with threats. Poor people's own perception of the sources of their vulnerability needs to be respected for them to become effective partners and their resilience should be strengthened building on existing coping strategies and adaptive advantages.
- Vulnerability to disasters is amplified by and nested in this larger picture of vulnerabilities and poverty. DRR strategies need to recognize and integrate this wider context.
- While scaling up is important, it does not necessarily mean replicating. There is no "one size fits all" and local values, rights and needs must guide interventions. Stakeholder participation and interventions that build on existing structures and knowledge should be prioritized.
- The challenges to advance the poverty alleviation and food security agenda are considerable. Concerted efforts and partnerships at different levels and scales are needed (e.g. between donors, donors and partner countries, governments and communities, and among stakeholders). It is also vital to build up national and local ownership in accordance with the Paris Declaration and this should be a key requirement for the inception phase and beyond.
- Networking and partnerships can also be used to scale up successful pilot and test activities and share best practices
- Local-regional-global linkages, coordination and cooperation at all levels are essential. Capacity should be strengthened or developed to enable this.
- Addressing issues of institutional change and influence policy and policy processes is key to achieving sustainable positive changes in the sector. Identifying and working with champions that can lead change and developing the capacity of actors in the sector is important. Cluster approaches, networking and organizational development – i.e. building, strengthening and empowering organizations – are powerful methods for improving the opportunities of small-scale producers to meet their goals.
- Work towards food security and poverty alleviation in fisheries and aquaculture should be informed by the ecosystem approach (EAF/EAA). In the small-scale sector, EAF/EAA should build on local contents and be "community based". The approach needs to be introduced incrementally – addressing gaps in existing structures and capacities – with simple and manageable tools. Learning by doing, adaptive management and action research are key concepts.
- Projects and programmes need to have explicit exit strategies, meaning a focus on a more rigorous and analytical approach to ensuring sustainability after the end of a project.
- Among several livelihood strategies, market arrangements, market access and related institutions are critical for small-scale producers.
- Communication and information flows are critical at several scales and levels. For actors – at all levels – to use, react to and act on information, it needs to be communicated and presented in a way that is appropriate to the receiver and the context. This requires different communication strategies and information contents, e.g. broad disaster text, macro-economic elements or local level food supply or nutrition data.

## 1. OPENING OF THE WORKSHOP

The *Inception Workshop of the FAO Extrabudgetary Programme on Fisheries and Aquaculture for Poverty Alleviation and Food Security* was held in Rome from 27 to 30 October 2009. The workshop was attended by 33 external participants and a large number of FAO staff, including from subregional and regional offices. The list of participants is included in **Appendix B**.

Mr Ichiro Nomura, Assistant-Director General of the FAO Fisheries and Aquaculture Department, welcomed the participants and thanked the organizations and governments supporting their participation. He referred to the overarching framework that the FAO the Code of Conduct for Responsible Fisheries – in combination with the United Nations Millennium Development Goals (MDGs) and the targets of the Johannesburg World Summit on Sustainable Development (WSSD) – provides for the work programme of the Department. The participants were reminded of the importance of fisheries and aquaculture in many developing countries in terms of livelihoods, poverty alleviation, food security and nutrition. Mr Nomura pointed out the need for adequate capacities and capabilities – supported by financial and human resources – to manage and develop the sector. As resources are likely to always be scarce in relation to the actual needs, it is of utmost importance that the available funding is used in the most effective and efficient manner. This requires avoiding unnecessary overlaps and duplication of work as well as a focus on complementarities to create synergies and high development impacts. Mr Nomura expressed his confidence in the workshop participants to contribute to the development of a global and *FAO Extrabudgetary Programme on Fisheries and Aquaculture for Poverty Alleviation and Food Security* that will meet these requirements and make a difference locally while also generating lessons globally (see **Appendix D**).

## 2. WORKSHOP OBJECTIVES AND ARRANGEMENTS

Mr Kevern Cochrane (Chief, Fisheries Management and Conservation Service, Fisheries and Aquaculture Management Division [FIM]) proceeded as the Chairperson of the workshop and outlined its background and objectives. The workshop constituted an important step in the inception phase of the development of a global programme encompassing both normative activities and country-level assistance to FAO Members. The overall goal of the programme will be to ensure that responsible and sustainable use of fisheries and aquaculture resources makes an appreciable contribution to human well-being, food security and poverty alleviation. Three major programme themes, or outcome areas, representing key departmental and cross-agency areas within the new FAO Strategic Objectives, had been identified, i.e.:

1. increased contribution of small-scale fisheries and aquaculture to poverty alleviation and food security;
2. sustainable production for optimal societal benefits through implementation and development of the ecosystem approach to fisheries and aquaculture; and
3. reduced vulnerability of fishing and fish farming communities to natural disasters and climate change.

The FAO Fisheries and Aquaculture Department hopes to attract external funding to allow for a comprehensive and effective programme. The Swedish International Development Cooperation Agency (Sida) is providing financial support to the inception phase and programme development financially and Mr Cochrane gratefully acknowledged this generous contribution.

An overall objective of the workshop was to provide an opportunity for the FAO Fisheries and Aquaculture Department to seek guidance with regard to its future direction and role in contributing to development goals. More specifically, as a major event in the consultative process of the programme inception phase, the purpose of the workshop was to generate inputs and guidance to the FAO Fisheries and Aquaculture Department on the following programme development aspects:

- The development of the programme themes and identification of possible gaps as well as priorities with regard to these themes.

- The process and steps needed for creating local ownership of the programme and its components, and for building required capacities and capabilities.
- The opportunities available for establishing partnerships, networks and effective communication.
- The methodology and criteria for the selection and design of country case studies, field work and other activities to be included in the programme.
- The definition of objectives and main outputs for the three themes and what the next steps in the programme inception phase should be.

The workshop was also providing a forum for consultation with potential partners to seek synergies and complementarities with their programmes and activities. As such it was hoped and anticipated that it would be valuable not only to FAO but also for the other participants and their organizations. More information on the background and expected results of the workshop can be found in the *Prospectus* that was distributed to participants beforehand (see **Appendix C**).

The structure of the workshop agenda followed the different items listed above. It included plenary presentations and discussions as well as small group discussions. The agenda is included in **Appendix A**.

This report summarizes the workshop presentations and discussions and gives an account of the conclusions and recommendations that were arrived at. It has been compiled by the rapporteur of the workshop, Ms Lena Westlund (Consultant FishCode Programme), and includes inputs from the rapporteurs of the small group discussions.

### 3. INTRODUCTION OF THE THEMATIC AREAS

The three thematic areas of the proposed programme and their background were introduced to the participants by short presentations. Brief summaries are provided below and the associated background papers can be found in **Appendix E**.

#### **Small-scale fisheries and aquaculture**

Mr Rolf Willmann, (Fisheries and Aquaculture Economics and Policy Division – FIE), talked about theme 1 – *Increased contribution of small-scale fisheries and aquaculture to poverty alleviation and food security* – and how fisheries and aquaculture make important contributions to poverty reduction and food security and can be a source of wealth creation that supports national economic development. There is growing recognition of the role of small-scale fisheries and aquaculture although their contributions are still often undervalued. The challenges and opportunities of the small-scale fisheries and aquaculture sectors include:

- Current policies do not always treat small-scale fisheries and aquaculture in accordance with their importance or with their needs.
- Small-scale fisheries and aquaculture are often overlooked in national poverty reduction policies and food security strategies.
- There is a need for strategies that enhance the role of small-scale fisheries and aquaculture in fostering national social and economic welfare.
- Responsible fisheries and aquaculture should be integrated with social development.
- There are calls for the adoption of a rights-based approach to small-scale fisheries and development.
- The FAO Committee on Fisheries (COFI) has given a mandate to develop a global programme in support of small-scale fisheries and examine options for an international instrument on small-scale fisheries.

The proposed programme contents for theme 1 include the following outputs:

- Development and dissemination of small-scale fisheries and aquaculture assessment and monitoring methods.
- Improvement of domestic and international market access for products originating from the small-scale fisheries and aquaculture post-harvest sector
- Development, piloting, dissemination and implementation of policies, practices (including management) and best practice guidelines.
- Enhancement and development of partnerships and creation of networks to exchange and share knowledge and experiences on best practices for small-scale fisheries and aquaculture, including the post-harvest sector.

### **The ecosystem approach to fisheries and aquaculture**

Ms Gabriella Bianchi and Ms Doris Soto (FIM) introduced theme 2 – *Sustainable production for optimal societal benefits through implementation and development of the ecosystem approach to fisheries and aquaculture* – and noted that the need for more holistic approaches to natural resource management is now widely recognized. Many governments and organizations are moving towards implementing ecosystem based approaches to fisheries and aquaculture.

Despite the name that may indicate that natural ecosystem concerns are the focus of this approach, the FAO ecosystem approach to fisheries (EAF) tries to balance the human dimensions with the natural aspects of fisheries in a holistic, integrated and participatory manner. In the same way, the ecosystem approach to aquaculture (EAA) prescribes that aquaculture development should not be harmful to ecosystems beyond resilience at the same time as it has as its main objectives to improve human wellbeing and to be developed with consideration of other sectors. While these general principles are well accepted and understood, great challenges still remain in actual implementation. Harmonization of EAF and EAA with national policies within the sector but also in relation to overall development policies still remain major challenges.

Accordingly, the proposed global FAO programme will seek to improve sustainable production for optimal societal benefits through the development and implementation of the ecosystem approach to sustainable fisheries and aquaculture through:

- application of a holistic and participatory approach to sustainable aquaculture and fisheries production in line with the FAO Code of Conduct for Responsible Fisheries, related instruments and EAF/EAA;
- elaboration of tools and guidelines for the implementation of holistic and participatory approaches to sustainable aquaculture and fisheries production.

### **Reduced vulnerability to natural disasters and climate change**

Theme 3 – *Reduced vulnerability of fishing and fish farming communities to natural disasters and climate change* – was presented by Mr David Brown (Fish Products and Industry Division – FII) who reminded participants that fishing and fish farming communities are vulnerable to disasters. This relates to a variety of factors including their location and the characteristics of the type of livelihood activities associated with fishing and fish farming, and also include high exposure to natural disasters. The world is witnessing an increasing frequency and magnitude of natural disasters with events of hydrometeorological origin constituting the large majority. There is also high confidence that climate change will increase the frequency and intensity of weather-related natural disasters. Despite the growing understanding and acceptance of the importance of disaster risk reduction and increased disaster response capacities, disasters and in particular the management and reduction of risk continue to pose a global challenge.

Disaster preparedness is intimately related to reducing overarching vulnerabilities related to poverty. More specific disaster preparedness strategies incorporate risk assessment and prioritization of risks

(vulnerability assessment), prevention and mitigation of disasters, and preparedness to respond. Key activities required to implement these strategies include planning (multilevel including national, community, contingency and sectoral), early warning systems and capacity building. Accordingly, the proposed programme for theme 3 contains three focus areas:

- more effective integration of disaster preparedness efforts and mitigation of climate change impacts into fisheries and aquaculture management and development planning at national, regional and global levels; and better compliance with relevant mandatory and voluntary instruments;
- promotion of a culture of risk and safety consciousness and of disaster resilience;
- strengthening of effective response and warning systems, starting with improved disaster risk identification, assessment, management and communication.

All three themes are aligned with the principles of the FAO Code of Conduct for Responsible Fisheries and other frameworks related to sustainable development, *inter alia*, the MDGs and the WSSD Plan of Implementation. Hence, the three themes are closely related by their common aim to achieve sustainable fisheries and aquaculture with benefits for poor and food insecure populations as well as through their shared vulnerability context. Vulnerability is a fundamental dimension of poverty and small-scale fishing and fish farming communities are often vulnerable to a range of threats, including – but not limited to – resource depletion and natural disasters. Accordingly, all three themes should aim at supporting and strengthening resilience among the communities that the programme is set to help. Women, and children, are often particularly at risk and may also experience different vulnerabilities to those of men and it is essential that gender considerations are mainstreamed in the programme. Other important cross-cutting considerations mentioned included the need to take an inclusive approach – e.g. take inland fisheries into account along with marine – and to look beyond the fisheries and aquaculture sector for solutions and collaboration. Rural livelihoods are complex and poverty alleviation requires holistic and integrated approaches.

#### 4. SYNTHESIS OF PARTICIPANTS' WRITTEN RESPONSES TO QUESTIONNAIRE

In preparation for the workshop, invited participants had been sent a questionnaire on their own programmes, partnerships and processes for programme development. The questionnaire contained a total of twelve questions, i.e.

- With regard to programme contents and partnerships:
  - Existing complementary programmes?
  - Possible synergies through partnerships and networks?
  - Gaps in the proposed FAO themes?
  - Comparative advantage of FAO versus others?
  - Learning opportunities for FAO?
- With regard to processes for programme development:
  - Process used for ensuring relevance and local ownership?
  - Main problems and constraints encountered in this process and solutions?
  - Harmonization with related programmes at the national level?
  - Specific actions taken to foster capacity-building locally?
  - Use of dedicated communication and awareness-raising strategies?
  - Use of dedicated monitoring and evaluation plans?
  - Wider dissemination of lessons learned?

Ms Rebecca Metzner (Fisheries and Aquaculture Economics and Policy Division – FIE), presented a summary of the responses. Seventeen questionnaires had been returned from a mix of government representatives, global organizations and donors. Overall, the answers indicated important opportunities for collaboration, complementarities and sharing of lessons learnt and experiences. With regard to *programme contents and partnerships*, activities carried out by respondents' organizations that would be complementary with the proposed global FAO programme and could create synergy effects covered a wide range of subject matters including policy, governance and management issues,

both in small-scale fisheries and aquaculture. Several respondents pointed to research, training and capacity development activities for sustainable fisheries and aquaculture as areas presenting opportunities for complementarity and synergies.

In response to the question about gaps and priorities in the proposed global FAO programme, respondents felt some areas could merit increased attention, e.g.:

- business aspects of fisheries and aquaculture
- livelihoods and diversification
- environmental and climate change mitigation
- addressing resource limits and strengthening resilience
- policy-making and implementation
- technical assistance

With regard to FAO's comparative advantage and the existence of learning opportunities for the Organization and its Fisheries and Aquaculture Department, the questionnaire responses indicated that this was something that should be discussed further. A more effective division of work, according to the needs of particular situations, would be supported by strengthened partnerships and networking. Generally, it appeared that several respondents felt the FAO's strength lies in its normative role and in providing technical assistance and supporting capacity building while other organizations may have comparative advantages with regard to work on the ground – in particular when related to local knowledge and inputs – and in cross-sectoral activities.

Regarding *processes of programme development*, three key concepts emerged from the questionnaires as essential for ensuring that activities are relevant to the local situation: consultations, participation and embedding programmes within governments and existing policies and programmes. However, it was felt that agreeing on priorities and creating unified objectives remain a challenge. Weak national and local capacities, insufficient time and funding for truly participatory processes, and lack of harmonization among donors were mentioned among the problems often encountered. Remedies used to address these constraints included increased donor coordination, transparency and communication, and actively using partnerships and establishing mechanisms for collaboration. A wide range of approaches was used for strengthening of national and local capacities – e.g. targeting youth to high level policy-makers, using informal and formal processes, covering technical and managerial subjects, and implementing on the ground locally as well as at the regional level – with a focus on training as a core activity. Communication and awareness raising were generally recognized as essential components of programmes although these aspects were still sometimes addressed ad hoc. Those respondents that reported on dedicated communication strategies cited a number of different formats for outreach and awareness raising, ranging from simple formats – e.g. leaflets – to more high tech media such as TV and web-based solutions.

While respondents generally stated that monitoring and evaluation (M&E) is important for measuring the efficiency and effectiveness of programme implementation, not all had incorporated comprehensive M&E components into their programmes. M&E is however receiving increased attention. This is sometimes inspired by internal interests and in other cases it is donor driven. It was also noted that also in those cases where M&E is in place during programme implementation, there is often no follow-up after programme completion. Nevertheless, efforts are commonly made to disseminate results – sometimes also including the short-comings of a programme. Workshops, training activities, multimedia products and special events were cited as means for communicating with targeted or wider audiences.

In summary, the questionnaire responses gave a great deal of interesting and useful information on existing programmes and processes that the above brief account cannot do justice. The FAO Fisheries and Aquaculture Department is grateful to the respondents for their contributions and will seize upon the overarching message of the importance to collaborate, complement and connect and also further explore the opportunities cited in the process of developing the global FAO programme.

## 5. REPORTS ON GROUP DISCUSSIONS 1: THEMATIC GAPS AND PRIORITIES

The first round of group discussions examined the three thematic areas, their contents as expressed in the focus areas or outputs<sup>1</sup>, and the priorities and key considerations that should be taken into account when developing the programme themes more fully. Participants were divided into three separate groups that reported back to plenary presenting their main discussions points and conclusions.

### THEME 1: Small-scale fisheries and aquaculture

The group discussion<sup>2</sup> on thematic gaps and priorities for theme 1 – *Increased contribution of small-scale fisheries and aquaculture to poverty alleviation* – focused its deliberations on the identification of priority actions needed for each of the four envisaged programme outputs. These included:

- 1) **Development and dissemination of small-scale fisheries and aquaculture assessment and monitoring methods:** Better information and baseline data are needed to raise awareness of the importance of fisheries and aquaculture and to inform policy and decision-making processes. At the national level, it would be important to integrate fisheries and aquaculture information into existing surveys and statistical systems, as well as ensuring that national development plans and poverty alleviation strategies take the needs of the sector and its people into account.

Key indicators should be defined and agreed upon to focus data collection and dissemination efforts. One such indicator could be the role of fish in nutrition, but also more information on employment and incomes generated by the sector and on the roles of different groups – e.g. men and women, fishers and post harvest workers – is needed. Methods for many assessment and monitoring aspects may already exist (in other sectors) but participatory approaches are needed when defining systems and indicators to ensure that the information collected, compiled and disseminated is appropriate and accessible to those that will use it. Better information will only contribute to poverty alleviation and food security if it is acted upon.

- 2) **Improvement of domestic and international market access for products originating from the small-scale fisheries and aquaculture post-harvest sector:** Small-scale producers have often difficulties accessing competitive markets and obtaining the best prices. Marketing infrastructure and food chains are often export-oriented to the neglect of domestic needs and opportunities. Post-harvest activities are critical for employment and income generation, especially for women. Many export markets require certain standards and certification schemes are becoming more common. These are often beyond the reach of small-scale producers because of the need for information and financial and human resources. Alternatives to international certification schemes are needed and the potential of setting up of national and regional certification systems should be explored. The certification of some aspects might also be assigned to producer organizations where this is in line with good practices of independence, accountability and transparency. The seafood market has a major influence on fish production and businesses need to be sensitized to influence their buying decisions in favour of small-scale producers. A key to strengthening the marketing power of small-scale producers is capacity building and organizational development. Larger groups of small-scale producers are in a stronger position for negotiating good prices, both when buying inputs and when selling their produce. Improved access by small-scale operators to price and other market information is also important for strengthening their competitiveness.

The issues and constraints are different whether targeting domestic, regional or international markets. In domestic and local markets, more efforts are needed to identify and develop small-scale market facilities and storage and transport infrastructures. Such developments should be planned and implemented in close consultation with the small-scale operators.

<sup>1</sup> See “Introduction of the thematic areas” above and/or the annex of the Prospectus in Appendix C.

<sup>2</sup> The group was organized with the assistance of Mr Rolf Willmann (FIE) and Mr Rohana Subasinghe (FIM). The facilitator was Ms Melba Reantaso (FIM) and Mr Suriyan Vichitlekarn (Association of Southeast Asian Nations – ASEAN) presented the group’s report in plenary. Lena Westlund (FIDP) acted as the group’s rapporteur.

- 3) Development, piloting, dissemination and implementation of policies, practices (including management) and best practice guidelines:** Testing and piloting are needed for things that have not been tried before but it is equally important to think of pathways for scale. Pilots may be successful but often difficult to implement on a bigger scale and unless this happens, the impact will be limited. Related to scaling up is the importance of communicating successes and failures as well as the socio-economic impact.

Poverty and vulnerabilities in small-scale fishing and fish farming communities do not only relate to issues and constraints contained within the sector itself. Hence, guidelines and best practices need to cover not only technical aspects but also, for example, organizational development, and social and economic issues. There is a need to develop comprehensive guidance for pro-poor small-scale fisheries and aquaculture management and development. Other specific critical gaps should be identified for which advice and guidelines are needed and these should then be developed in participation with stakeholders.

- 4) Enhancement and development of partnership and creation of networks to exchange and share knowledge and experiences on best practices for small-scale fisheries and aquaculture, including the post-harvest sector:** There are multiple levels of networking and interactions that can be strengthened and developed. It is important to know the various stakeholders and their networks and – to the extent possible – build on these rather than creating new structures.

A network has to be based on a common interest to be sustainable and the mutual benefits have to be recognized. Networking among small-scale operators themselves should be supported as well as encouraging their integration in broader national, regional and international networks. A value chain approach should be applied (covering actors and activities from input supply to post-harvest and marketing) and the incorporation of small-scale operators into the value chain of large-scale operators is an opportunity that can give reciprocal benefits if given the necessary policy support.

On the whole, the group believed that the theme and its four output areas covered most key issues but after the discussion on priorities, it was felt that – when developing the full programme – the outputs and activities might need reorganising and some reformulation to provide a more logic structure. Attention was also brought to the need to ensure that gender considerations were adequately built into the programme as well as taking the particular needs and interests of indigenous people and subsistence fishers, particularly in inland waters, into account.

## **THEME 2: The ecosystem approach to fisheries and aquaculture**

With regard to theme 2<sup>3</sup> – *Sustainable production for optimal societal benefits through implementation and development of the ecosystem approach to fisheries and aquaculture* – the group discussions focused primarily on identifying gaps and needs for improvement in the development of the EAF/EAA framework and implementation. While some identification of "priority" areas was discussed, it was generally felt that prioritization was difficult at this moment and might not, in any case, be appropriate as many of the issues raised concerning the EAF/EAA framework are interlocking and not easily implemented in isolation.

Given the overall programme's emphasis on poverty alleviation and food security, the question was raised as to whether the main objective of the programme, and of the group discussion exercise, would be to adapt the EAF/EAA to small-scale fisheries and aquaculture. The theme coordinator considered that, at this stage, the intention was not to limit the application of EAF/EAA to small-scale activities only, as other subsectors also have significant implications for both poverty alleviation and food

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<sup>3</sup> The coordinator for theme 3 was Ms Gabriella Bianchi (FIM) and the session was facilitated by Ms Doris Soto (FIM). Mr Philip Townsley (IMM Ltd) acted as rapporteur and also made the presentation of the group's conclusions to plenary.

security. The decision on where emphasis should be put would best be made according to the specific context of any particular intervention.

There was, however, broad consensus in the group that the small-scale sub-sectors in fisheries and aquaculture should be areas of particular attention. It was noted that, in documentation and discussions around EAF/EAA, some clarification might be in order so that the nature of the relationships between EAF/EAA, small-scale fisheries and aquaculture, and the overall programme goals of poverty alleviation and food security are made absolutely clear. Otherwise there is some risk for confusion since they are being addressed under the umbrella of a single programme.

Following this initial, general discussions, the group started its work on identifying gaps in current understanding of the processes required for EAF/EAA. As a result, five main categories of gaps in need of attention were identified:

- 1) **Understanding and improving policy-making processes:** it is important for those involved in initiating and promoting EAF/EAA to be aware of the context of power and processes within which they are operating. Thinking strategically about appropriate ways of encouraging change in policy processes and the enabling context is important. This means, for example, identifying points of leverage, potential champions of change, avenues of least resistance, appropriate coalitions for facilitating change, etc.

There is a need for analysing and identifying those institutional and policy frameworks to enable EAF/EAA implementation. Policy development, and the policy cycle, needs to be transparent and involve learning and adaptation mechanisms. Policy processes in support of EAF/EAA should be informed and influenced by the outputs of research in many scientific sectors (social, economic, environmental). Ways in which new knowledge generated by research in these different sectors can inform the policy process need to be explored. The establishment of principles guiding policy decisions that are commonly accepted among key stakeholders can enhance transparency and the support base for policy decisions.

- 2) **Institutional arrangements and governance:** Working on EAF/EAA will inevitably involve work across many institutions and at different levels (e.g. different sectors, geographic scales, management levels, etc.). This means that understanding institutions, what they are and how they work is key. The roles, responsibilities and mandates of institutions are often complex and need to be clarified both across sectors as well as vertically. This means understanding both institutions' formal and documented roles (what institutions are supposed to do) and what their informal and unwritten roles are (what they actually do). The ways in which roles, responsibilities and mandates are delegated in the context of processes of decentralization are particularly important. Of special importance is to understand the local decision-making process.

Institutional processes are as important as the structures, especially in processes that involve interinstitutional coordination and cooperation. The processes by which institutions involved in EAF/EAA work have to be adaptive, responsive and flexible. This involves a willingness, and appropriate mechanisms, to learn lessons within institutions, to recognize and respond to mistakes and "critical awareness" which allows institutions to assess what they do and recognize the need for adjustment.

Ensuring that institutions involved in EAF/EAA have appropriate legislation and enforcement mechanisms at their disposal is also of fundamental importance.

- 3) **Capacity building and tools for EAF/EAA facilitation and implementation:** capacity building, as a continued process supporting EAF/EAA throughout, is required, providing people with manageable tools which enable them to contribute to the overall process. Tools are needed at all levels, both in relation to facilitating planning and implementation processes, as well as in support to building knowledge on the human as well as environmental parts of the system.

There is a special need for tools and processes that enable agencies and institutions to engage in EAF/EAA planning even with limited data if necessary. This needs to be supported by identifying "minimum" information requirements for EAF/EAA.

Participation by all key stakeholders from the earliest stages is critical in achieving ownership and understanding of EAF/EAA where stakeholders feel full **ownership** of the process, and fully endorse it, their confidence in the process will be enhanced and the chances for success improved. More innovative thinking is required regarding the processes required to engage multiple stakeholders. Multistakeholder workshops are just one option but those involved in implementation of EAF/EAA need to have a greater range of mechanisms at their disposal, if needed.

Processes and tools which encourage a perception of EAF/EAA as "do-able", simple and achievable should be developed and furthered. Use of case studies and best practice (rather than academic or technical papers) can help operators to perceive EAF/EAA as appropriate and achievable.

There is a need to recognize that, in implementing EAF/EAA, not all priorities of all stakeholders can be satisfied at any one time. Likewise it may be difficult to optimize **all the goods and services** that ecosystems produce (productive, supporting and cultural services) at the same time. Approaches to establishing priorities and making trade-offs that enhance transparency need to be made available.

Linkages between EAF/EAA processes and local communities and relevant stakeholders are critical. The relationship, and potential synergies between EAF/EAA and community-based management approaches need to be explored.

To understand potential synergies between existing traditional or indigenous knowledge and practice, and EAF/EAA, it is important to find out what processes and mechanisms are currently in place, what is being done in management, what is missing in terms of EAF/EAA and what gaps need to be addressed.

### **THEME 3: Reduced vulnerability to natural disasters and climate change**

The group deliberating on theme 3<sup>4</sup> – *Reduced vulnerability of fishing and fish farming communities to natural disasters and climate change* – initially discussed a set of principles that would be applicable to the actions proposed for the theme. These principles included that of "subsidiarity", empowerment, transparency and accountability, adaptability, aid effectiveness, embedding what is done in national and local systems, cross-sectoral policy coherence and working through partnerships. With regard to targets for poverty reduction, gender and sustainability, those of the MDGs should be followed. Subsidiarity was considered important to ensure that actions would be delegated and consultations carried out with the most appropriate level of operation.

A number of gaps were then identified in the programme, several of which are relevant for all three thematic areas:

- 1) The need to understanding the community:** A thorough understanding of the communities that the programme will work with and their context is essential. Aspects to consider include the structure/local institutions, organizations, socio-economics, financial (credit, savings, insurance), political, leadership, geography, livelihoods assets (the five capitals), the fisheries resources

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<sup>4</sup> Mr David Brown (FII) coordinated the work of the group and acted as rapporteur. The discussions were facilitated by Ms Susana Siar (FII) and Mr Yugraj Yadava (Bay of Bengal Programme Intergovernmental Organization [BOBP-IGO]) presented the results of the discussion to plenary.

(multiple use, of transboundary watersheds and river basins), knowledge (indigenous traditional knowledge), the coping mechanisms, the suite of livelihood strategies adopted, health (human and animal), transboundary animal diseases, invasive species, technologies, complexity (diversity and inclusiveness) and key risks (through mapping).

- 2) **The need for awareness-raising:** Activities promoting education and advocacy will be important and should include development of best practices and lessons (many may already exist in other sectors). Awareness needs to be raised with regard to the importance of healthy ecosystems, the profile of fisheries and aquaculture and their contribution to the economy, safety-at-sea considerations and the significance of climate change and the need for adaptations.
- 3) **Policy:** At the policy level, efforts are needed to promote the inclusion of disaster risk management (DRM) into fisheries management planning and development and of fisheries and aquaculture into disaster risk reduction (DRR) planning. The link between safety-at-sea and fisheries management should be recognized and an improved understanding interactions of climate change and natural disasters should inform policy. It is also important to raise the profile of fisheries and aquaculture and policy should take the sector's important contributions to the economy and food security into account.
- 4) **Early warning systems:** Systems specifically relating to fisheries and aquaculture communities are needed and should be articulated in policy. In addition to actual systems, training and awareness raising, improved organizational capacity and strengthening of processes for communication of warnings also need to be considered. There should be linkages between local communities and government agencies, as well coordination among different agencies with regard to the development of "technology and hardware" and the implementation of early warning systems.
- 5) **Strengthening national and local/community capacity:** Capacity building at all levels is required with regard to preparedness and response abilities. Moreover, the development of safety nets and insurance schemes should be considered.
- 6) **Linkage between fisheries and wider economy-resilience:** To strengthen resilience, diversification of livelihoods (both additional and alternative) can be an important strategy. This could include adaptation and development of local markets.

## 6. CLIMATE CHANGE AND FISHERIES AND AQUACULTURE

Ms Cassandra De Young (FIE), informed the workshop participants of the FAO Fisheries and Aquaculture Department's activities relating to climate change during the last couple of years. Through the Department's working group on climate change, a number of consultations, meetings and other activities have taken place to further our knowledge about the implications of climate change for fisheries and aquaculture. Outputs from these efforts include an evaluation of policy options and activities at the international, regional and national levels that can help minimize negative impacts of climate change, improve on mitigation and prevention, and maintain and build adaptive capacity to climate change<sup>5</sup> and a seminal report on current scientific knowledge.<sup>6</sup> Additional information can be found on the FAO Fisheries and Aquaculture Department climate change Web site ([www.fao.org/fishery/topic/13788/en](http://www.fao.org/fishery/topic/13788/en)).

<sup>5</sup> See Report of the FAO Expert Workshop on Climate Change Implications for Fisheries and Aquaculture. Rome, 7–9 April 2008. *FAO Fisheries Report*. No. 870. Rome, FAO. 2008. 32p. Available at [www.fao.org/docrep/011/i0203e/i0203e00.htm](http://www.fao.org/docrep/011/i0203e/i0203e00.htm)

<sup>6</sup> Cochrane, K.; De Young, C.; Soto, D.; Bahri, T. (eds). 2009. Climate change implications for fisheries and aquaculture: overview of current scientific knowledge. *FAO Fisheries and Aquaculture Technical Paper*. No. 530. Rome, FAO. 2009. 212p. (Available at <ftp://ftp.fao.org/docrep/fao/012/i0994e>)

Of note is the recent development of the Global Partnership on Climate, Fisheries and Aquaculture (PaCFA). PaCFA is an informal group, comprising 19 IGOs, NGOs and Civil Society Organizations (CSOs), that was borne from a mutual desire to draw together potentially fragmented and redundant climate change activities through a multi-agency global programme of coordinated actions and the pressing need to raise the profile of fisheries and aquaculture in the United Nations Framework Convention on Climate Change (UNFCCC) negotiating process. PaCFA strives to inform the climate change agenda and to create awareness about fisheries and aquaculture in the context of climate change and a number of joint outputs have been produced to this end including a joint policy brief prepared in preparation of the UN Climate Change Conference to be held in Copenhagen in December 2009 (COP 15).<sup>7</sup> In the run-up to COP 15, the Partnership will continue supporting country-driven efforts through the sensitization of and liaison with relevant line ministries within and outside the sector about the need to participate in the negotiating process and by providing a neutral forum for the exchange of technical information regarding the possible impacts and appropriate strategies necessary in a world of increasing change.

Ms De Young pointed out the close links between climate change and the themes that are currently being discussed in the workshop. DRM and climate change adaptation both strive to increase resilience to impacts of natural disasters and climate change. By increasing the social and economic resilience of small-scale fishers, fish farmers and fish workers through, *inter alia*, improving governance and taking a holistic approach to supporting livelihoods, their ability to adapt to climate and other global changes will be strengthened. The ecosystem approach to fisheries and aquaculture is important not only to support sustainable fisheries and aquaculture production but is also a mechanism to improve the sector's mitigation efforts by, for example, supporting the natural carbon sink capacity of the aquatic systems, developing sustainable biofuel options and improving the sector's energy efficiency. The ecosystem approach to adaptation promotes holistic and community-based strategies appropriate to the existing human, ecological and governance systems. In addition, the broadened monitoring indicators implied by the EAF and EAA will provide us with increased knowledge on changes in the physical, ecological, socio-economic and governance systems.

It was noted that healthy oceans are an extremely important factor in combating climate change. A proposal for a "blue carbon" fund that can invest in the maintenance and rehabilitation of key marine ecosystems has been put forward.<sup>8</sup> This concept merits more attention and it was felt that efforts should be supported to put oceans and coasts higher on the climate change agenda, e.g. in the Copenhagen Conference.

## **7. PARIS DECLARATION ON AID EFFECTIVENESS: A REMINDER**

Ms Gunilla Greig, the Swedish Board of Fisheries, gave a presentation on the Paris Declaration on Aid Effectiveness (the Paris Declaration), its rationale and implementation progress. The workshop participants were reminded that the development cooperation arena is a complex subject matter with a vast number of actors, activities and ways of doing things. The High Level Forum in 2005, resulting in the Paris Declaration, was held following several consultations discussing aid effectiveness and how to optimize contributions towards achieving the MDGs.

The Paris Declaration calls for action to move from "donorship to ownership" by 2010. The development agenda needs to be set by the partner (recipient) countries, be aligned with national and local policies and programmes, and use existing partner systems. Among donors, there need to be better coordination and harmonization of activities. This can be achieved by establishing common arrangements, simplifying procedures and sharing information. There should also be mutual accountability, i.e. both on behalf of donors and partner countries, for achieving development results.

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<sup>7</sup> See [ftp://ftp.fao.org/FI/brochure/climate\\_change/](ftp://ftp.fao.org/FI/brochure/climate_change/)

<sup>8</sup> See a joint report by FAO, United Nations Environment Programme (UNEP) and IOC-UNESCO available at [www.grida.no/publications/rr/blue-carbon/](http://www.grida.no/publications/rr/blue-carbon/)

In 2008, the progress on the Paris Declaration implementation was reviewed through surveys of donors and partner countries. This resulted in the Accra Agenda for Action that identifies where more actions are needed to meet the targets that have been set. A new High Level Forum will be held in Seoul, South Korea, in 2011. For this event, which will take stock of progress toward the targets set out in the Paris Declaration, a final round of monitoring and an evaluation of the impact of the Paris Declaration will be carried out.

The workshop greatly appreciated the presentation but it was sadly noted that, in spite of these efforts, the number of food insecure people in the world has increased in recent years. This may however not be directly correlated with aid effectiveness but related to factors such as the steep rise in food prices in 2007 and 2008 and the recent global financial and economic crisis. With respect to fisheries and aquaculture, it was felt that efforts should be made to put the sector higher up on the development agenda because of its potential to contribute to poverty alleviation and food security. In line with the Paris Declaration, requests for support to the sector should of course come from partner countries but for this to happen, fisheries and aquaculture have to have adequate visibility.

## 8. PARTNERSHIPS AND NETWORKS

The workshop chairperson invited participants to share the experiences of their organizations with regard to partnerships and networks. Five speakers made presentations and their interventions are summarized below.

### Partnerships of the World Bank

Mr Kieran Kelleher explained that the World Bank entertains a large number of partnerships and that only those with more direct relevance to fisheries and aquaculture could be mentioned here, i.e.:

- *PROFISH* is a partnership with FAO, WorldFish Center and key donors that focuses on three streams of work: global goods, country level analyses and alignment of interventions. The *global goods* component addresses knowledge gaps by carrying out studies (The Sunken Billions and the Big Numbers Project). It also looks at the political economy of fisheries reform and supports the development of a food fish supply and demand analysis. The *country level analyses* component prepares policy briefs for projects (e.g. Peru, Sierra Leone and India). Through the *alignment of interventions*, direct implementation of the Paris Declaration is promoted. PROFISH could be extended to include other international financial institutions in the future.
- The intention of *ALLFISH* is to promote codes for responsible industry conduct and sustainable value chains from developing to developed countries by engaging directly with the industry and building consensus among stakeholders. The programme, which is a partnership with FAO and uses Global Environment Facility (GEF) and World Bank funding, is managed by the International Coalition of Fisheries Associations (ICFA).
- The *Strategic Partnership for Sustainable Fisheries in the Large Marine Ecosystems (LMEs) in Sub-Saharan Africa* draws on GEF funding with co-financing from the World Bank and other partners. Funds have so far been committed to World Bank co-financed projects in Senegal, Cape Verde, Sierra Leone, Liberia and Kenya. The partnership is chaired by the African Union.
- The *Partnership for African Fisheries* is also chaired by the African Union/the New Partnership for African Development (NEPAD) and receives funding and support from the Department for International Development of the United Kingdom (DFID) and the World Bank. It focuses on governance, trade and combating illegal fishing.
- The World Bank is a member of the Partnership on Climate, Fisheries and Aquaculture (PaCFA).
- The World Bank hosts the secretariat of the Consultative Group on International Agriculture Research (CGIAR) and provides grant funds, including to the WorldFish Center.
- Other partnerships include the World Bank/FAO Cooperative Programme for identification of investment opportunities, the Coral Reef Targeted Research (CRTR) hosted by the University of Queensland, Australia, and the *Global Facility for Disaster Reduction and Recovery (GFDRR)* which includes inputs from numerous donors and international agencies.

### **The Code of Good Partnerships of the International Red Cross and Red Crescent Movement**

Mr Björn Eder from the Swedish Red Cross informed the meeting of a new Code for Good Partnerships for the International Red Cross and Red Crescent Movement. The Code builds on the Movement's fundamental principles (humanity, impartiality, neutrality, independence, voluntary service, unity and universality) and its statutes and policy framework. The Code also takes the specific mandates and nature of the Red Cross and Red Crescent Societies (as auxiliaries to their public authorities in the humanitarian field) and the mandates of the International Conference of the Red Cross and the International Federation into account. It states that institutional partnerships are ultimately about relationships between people and should build on mutual respect. The Code spells out commitment to: (i) respect and empower vulnerable people; (ii) practice diversity and cultural sensitivity; (iii) ensure integrity; (iv) work together as partners within the Movement; and (v) cooperate with actors outside the Movement. The Code is expected to be formally adopted shortly. Mr Eder also mentioned that the Red Cross and Red Crescent Movement is built around voluntary services and that this special partnership with millions of volunteers is crucial for the Movement's ability to extend, often at short notice, large-scale relief assistance even in remote areas to the extent it does.

### **Research networks of the WorldFish Center**

Mr Michael Phillips talked about the wide range of research networks enjoyed by the WorldFish Center. Thanks to the CGIAR<sup>9</sup> reform and the emphasis on development impact, new partnerships are being established to promote increased development impact from research. With regard to the three themes of the current workshop on fisheries and aquaculture for poverty alleviation and food security, there is already ongoing research at WorldFish Center, some which is in partnership with FAO.

Mr Phillips mentioned three important aspects of networking: (i) the need for sustainability, i.e. there has to be adequate financial and human resources (empowered people with capacity); (ii) that technology and communications are opening many new opportunities for sharing experiences, for cost effective networking and for building "coalitions"; and (iii) that good leadership and ownership are needed for networks to be continued. Examples of new networking initiatives that could be beneficial for small-scale aquaculture are those along the supply chain and in business, and at the producer level for better management and access to markets. Support to small-scale aquaculture is needed by providing access to simple skills technologies and promoting the adoption of simple management improvements. There is a need to scale up successful pilot activities in these areas and networking can be important for reducing costs through economies of scale in delivery of quality services to small-scale farmers. Economic benefits from investing in small-scale aquaculture networking can be substantial.

### **Cluster management among Indian shrimp farmers – The National Centre for Sustainable Aquaculture (NaCSA)**

Mr Umesh Ramaswamy gave a presentation on how the National Centre for Sustainable Aquaculture (NaCSA) had developed from a project of the Marine Product Export Development Authority (MPEDA) and the Network of Aquaculture Centres in Asia Pacific (NACA) into a new institution supporting small-scale shrimp farmers in India to form societies and improve livelihoods. By combining cluster management, better management practices (BMPs) and support services, farmers achieved better production, reduced risk, and improved market access. Middlemen are being eliminated in production and market chains by increasing farmers abilities to procure quality inputs and meet market requirements with regard to food safety, traceability and cluster certification. Recently, farmers successfully entered into an agreement with a large food service company in the

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<sup>9</sup> Consultative Group on International Agricultural Research (CGIAR) is an alliance of members, partners and international agricultural centers of which the WorldFish Center is a member.

United States of America to supply shrimp from small-scale producers. The way forward is now to scale up this success and it is hoped that 25 000 shrimp farmers in India will be enjoying similar benefits in 2012. There is also scope for replication of the approach for small-scale aquaculture farmers in other countries of the region (e.g. Viet Nam, Indonesia).

### **Partnerships and networking of the International Collective in Support of Fishworkers (ICSF)**

Ms Chandrika Sharma introduced the International Collective in Support of Fishworkers (ICSF) to the workshop participants. ICSF, formed in 1986, works to support small-scale fisheries as well as organizations that are part of the sector. ICSF aims to increase awareness about small-scale fisheries and the role of the different actors involved, including women. Partnerships and networking are essential to the way ICSF functions, given that ICSF is not a large organization, e.g.:

- ICSF itself is a network, and its members, a majority of who are from countries of the South, are themselves part of organizations and networks within their own countries. Members contribute to ICSF's work in a voluntary capacity.
- ICSF collaborates with fish worker organizations and NGOs at the national level in several countries. ICSF also works with international organizations representing fish workers, as for example, during and after the Bangkok Conference on Small-scale Fisheries<sup>10</sup>.
- Additionally, ICSF is part of a larger network of social movements and NGOs – the International NGO/CSO Planning Committee on Food Sovereignty – that brings together small-scale producer organizations (farmers, fish workers, pastoralists), women's groups, indigenous peoples groups as well as NGOs. This is useful, for example, in bringing out common position papers and documents across sectors on issues such as food security, and for taken up advocacy in a coordinated and effective manner.
- ICSF workshops and events also invite representatives of governments and multilateral organizations. On a couple of occasions, ICSF has partnered with governments that are supportive of small-scale fisheries to organize workshops.

Through its publications (SAMUDRA Report and Yemaya) as well through SAMUDRA News Alerts, ICSF disseminates information about, and for, small-scale fisheries. The idea is to increase awareness among policy-makers about what is happening in small-scale fisheries, and to serve as a means for fish workers to receive and exchange information, and sustaining networks.

The workshop participants noted the importance of ICSF and that the organization received the FAO Margarita Lizárraga Medal for 2002–2003 in recognition of its comprehensive, sustainable and catalytic initiatives in support of the FAO Code of Conduct for Responsible Fisheries. It was further noted that there is growing recognition of civil society organizations in the international arena, as for example, following the recent reform of the Committee on World Food Security (CFS). It was felt that many lessons could be learnt across sectors and that networks among, for example, small-scale food producers, could be very fruitful.

## **9. REPORTS ON GROUP DISCUSSIONS 2: CROSS-CUTTING ISSUES**

The second session of group discussions dealt with approaches and methodologies common to all three theme areas of the proposed programme. Three groups discussed: (i) fostering national ownership and capacity; (ii) partnerships, networks and communications; and (iii) methodology and criteria for the design and selection of country case studies/field work. Summaries of the discussions and conclusions were reported to plenary.

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<sup>10</sup> See FAO. Report of the Global Conference on Small-scale Fisheries – Securing Sustainable Small-scale fisheries: Bringing together responsible fisheries and social development. Bangkok, Thailand, 13-17 October 2008. *FAO Fisheries and Aquaculture Report*. No. 911. Rome, FAO. 2009. 190p. (Available at [www.fao.org/docrep/012/i1227t/i1227t.pdf](http://www.fao.org/docrep/012/i1227t/i1227t.pdf))

## **GROUP 1: Fostering national ownership and capacity**

The group <sup>11</sup> started its discussions by considering the concept of ownership in general and agreed that it is an extremely important issue that is not always addressed openly. The group underlined the relevance of ownership at different levels – local, regional and national – and that it is an issue that cuts across all three programme themes. Local ownership should be seen in the light of the Paris Declaration, which recognizes it as one of the partnership commitments. There is a need to promote local ownership in fisheries and aquaculture projects aimed at providing food security and better livelihoods.

The lack of a sense of ownership in fisheries and aquaculture programmes and activities was discussed and the issues that were brought up were grouped under five main headings. The group then proposed possible ways to address the issues identified and thus foster ownership and build capacity:

- 1) **Donor issues:** The group agreed that sometimes projects are driven not by the needs of the beneficiaries/recipients but rather by the interests and priorities of donors. Issues are pushed from outside organizations/donors and thus ownership by ultimate beneficiaries or also at the national level is difficult to attain. The timeframes of projects may not be realistic, as donors need to have results fast, and the scheduling of projects and their budget cycles might be out of sync with the capacities of national government to implement the projects. There is also, sometimes, a lack of transparency at the planning stage and not enough time allocated for problem identification and planning with the participation of all core stakeholders. Donors may also demand to reduce government's administration, eventually affecting the government capacity to act towards development. An additional impairment to ownership has been identified in the lack of accountability of donors to the people for whom they are supposed to be working, the ultimate beneficiaries of development.

*How to address these issues:*

- Support long term policy and planning within the sector and link to community needs in a strategic manner.
- Take time to build trust and partnerships and engage in participation that is embedded in government systems and primary stakeholder organizations.
- Work with government systems to make them better – also in compliance with the indications of the Paris Declaration.
- Use a Human Rights-Based Approach to support ownership and favor the mobilization of funds.

- 2) **Government top-down approach:** At the level of government, the most important issues affecting ownership include the top-down approach to development, i.e. not starting with locally felt problems. There may be difficulties in getting a common agreement on views and there is often a lack of openness on behalf of governments to include stakeholders in the planning process. Moreover, governments may lack the capacity to formulate projects and attract funding. The group also pointed out that there are different perceptions of ownership – at the local and at the national level – and these should be addressed separately.

*How to address these issues:*

- Carry out needs assessment through stakeholder consultations and wider participation.
- Devolve powers to the local communities for implementation, monitoring and evaluation.
- Build in transparency and accountability in such devolution process.
- Develop and use indicators of participation.

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<sup>11</sup> The session was facilitated by Ms Doris Soto (FIM). Mr Jock Campbell (IMM Ltd) made the group's presentation in plenary and Ms Nila Petralli (FIE Consultant) and Mr Alain Jeudy de Grissac (International Union for Conservation of Nature – IUCN) helped with the rapporteurship.

- 3) **Lack of communication and dissemination:** Three main issues were grouped under this heading. There is often a lack of clarity with regard to direct benefits in terms of living standards, i.e. beneficiaries do not see the positive effects that projects can have on their lives. Moreover, often beneficiaries are not well prepared to gradually take over at the end of a project, and bad experiences from previous projects may hinder sense of ownership for present and future projects.
- 4) **Institutional failures:** Several issues related to institutional failures were identified by the group: frequent changes in government key staff due to administrative rules or political shifts; too little flexibility in project implementation; lack or weak institutional structure and coordination in conjunction with the practice of keeping project coordination functions outside the normal national structures (i.e. in Project Implementation Units – PIUs); lack of capacity and empowerment; projects are often multisectoral but the national implementation agency is likely to represent a single sector; and budget cycles are out of sync.

*How to address these issues*

- Analysis of, and support to, institutions to cover all levels of institutions from government to communities.
  - Carefully consider institutional and human capacity in planning and implementation as an ongoing process.
  - Use phased approaches to planning and implementation.
  - Co-funding can be an important input from government – to actively involve them.
  - Keep budgets flexible.
  - Leave detailed planning to local partners.
  - Focus on capacity building at the middle management level, i.e. for people who are not changing so often and not the "political people".
- 5) **Lack of national policies and strategies:** Under this heading the group included the lack of clear national policies, plans and strategies, and the importance of long term planning, i.e. the need to develop a programme approach rather than a project approach. Moreover, there is often a lack of national policy on stakeholder involvement and participation and weak links between communities and policy process with the risk of bypassing existing structures and processes.

*How to address these issues*

- Formulate clear and coherent national policies, strategies and plans that include cross sectoral issues and stakeholder involvement.
- Improve participation through the empowerment of local organizations.
- Strengthen the links between communities and policy processes. To provide food security and livelihoods, a policy change is necessary and governments must be committed to empowering the communities.

Following the presentation, comments were made in plenary and it was noted that the aims and ambitions of the Paris Declaration are indeed very relevant and important for strengthening national ownership of local activities. However, negotiations and planning of aid programmes generally take place in situations of *de facto* unequal power relationships and many recipient countries probably feel that donors are guiding the process. Another constraint is insufficient capacities at the local level for assuming a leading role or even actively taking part in programming. Capacity building and support to processes are hence essential already at the planning and programme formulation stage. At the other end of the time frame, it is also important to ensure sustainability after a project is completed. Clear and realistic "exit strategies" need to be an integral part of programme design.

## GROUP 2: Partnerships, networks and communications

Group 2<sup>12</sup> discussed the three subjects of their agenda in sequence, i.e. partnerships, networks and communications:

1) **Partnerships:** The group began its work by a discussion on important elements of partnerships. Key considerations identified included that one should select partners based on what one hopes to achieve and that strategic partnerships exist and involve people at all levels, from those working on the ground all the way to international agencies. When considering a partnership, there are two questions that can guide the selection of partners:

- What types of partners can be useful for achieving your objectives?
- What are the gaps in an initiative – and who can fill them?

It was also noted that there may be a need to invest in organizational development and in enhancing the capacities and competencies of partners in order for partnerships to be successful.

The group subsequently discussed two main aspects of partnerships, i.e. characteristics of good partnerships and different types and levels of partnerships:

### *Elements of the relationship/key characteristics of good partnerships*

- Mutual understanding and trust.
- Equitable involvement of partners.
- Partner involvement depends on objectives and degree(s) of equity.
- Clearly identified goals for the partners, with consideration of commonalities and mechanisms.
- Common interests, particularly for long-term sustainability.
- Common value grounds acceptable to both/all in the partnership (synergistic relationships).
- Mutuality and benefits to both/all parties to achieve goals.
- Flexibility and adaptability in the relationship.
- Appropriate partner selection.
- Capitalization on complementarities in partnerships.
- Cross-sectoral – engage with those doing, for example health and fighting crime (relevant for combating illegal, unreported and unregulated [IUU] fishing).
- Local customs, values and idiosyncrasies.
- May need champions or drivers – whether chosen, self selected or empowered.

### *Types and levels of partnerships that have been useful*

- Cross-sectoral partnerships – at all levels and all categories of formality and mechanistic requirements.
- Emphasis on transversal/horizontal fisher to fisher relationships, which can be initiated by organized fisher groups/associations/syndicates, training institutions, etc.
- Letting people exchange information at the local/on the ground level is very important.
- Collaboration and coordination among regional/international organizations.
- Incorporation of small-scale fisheries and aquaculture into larger scale activities and operations as well as working to promote the small-scale fisheries and aquaculture sector itself so that producers at various scales can interact and benefit from shared access to markets (instead of competing in markets). Equity in such partnerships is vital for achieving benefits for the small-scale fisheries and aquaculture people.

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<sup>12</sup> The group was coordinated by Ms Gabriella Bianchi (FIM) and facilitated by Ms Melba Reantaso (FIM). Mr Ricardo Yearwood (Caribbean Disaster Emergency Management Agency – CDEMA) was the rapporteur; he also made the presentation to plenary.

- 2) Networking and how they can help us alleviate poverty and achieve food security in the fisheries and aquaculture sector:** Partnerships may constitute subsets of networks. A network can be defined as a grouping of interested parties. Such groups do not necessarily need to be organized but can be formalized. It was noted that networks can also exist within formal structures yet be informal. It was also noted that there is an entire language and science of networks and it could be useful to expand into multidisciplinary teams and to bring people from the network sector into fisheries and aquaculture. It is however important to understand the context within which we are working before trying to understand what we want to get out of a network.

Successful networks need to be defined by common objectives and processes. Success is dependent on involving, building on and supporting traditional/local networks, and strengthening and encouraging them. Its success will depend on if it has clear answers to:

- Why do we network?
- How do we network?
- What do we network for?

Networks can be used to:

- increase the visibility and for lobbying (many speaking with one voice and common stance);
- allow people to come together and to speak with one voice – with power – and improve the effectiveness of lobbying efforts; and
- provide more structured departure point for engaging with government (e.g. Caribbean Regional Fisheries Mechanism – CRFM).

The benefits of networks include:

- Sharing of information, resources, knowledge and expertise.
- Improving communication.
- Useful for getting people organized and more action oriented and purpose driven.
- Creating economies of scale, at all levels.
- Providing a way to interact and to respond to situations (adaptive responses – short or long-term).
- Can help resilience and support bouncing back and response mechanisms.

- 3) Communication:** The group noted the differences between information, communication and dissemination, and that information is not communication – communication needs to be two-way. Moreover, communication is not about messages but about processes of dialogue, providing a mechanism for participation in decision-making processes.

Some points to consider with regard to communication in the fisheries and aquaculture sector include:

- Fisheries and aquaculture still tend to work in a sectoral approach, which can be a drawback and disservice to themselves.
- Whilst cross-sectoral contacts are essential, there is also need for developing sector specific communication tools.
- Effective communication is vital, at all levels, and exchanges should take place between fishers and fish farmers, across sectors (fisheries and aquaculture can learn from others), farmers to farmers and fishers to fishers, communities to communities and include different socio-professional groups (e.g. boat operators, owners, labourers, middlemen, and other people in these activities and subsectors).

There are different communication tools and different means may be needed for different goals. To understand for whom, for what situation and how is essential when planning communication activities:

- Printed paper – from publications to flyers, leaflets and traditional forms.
- Electronic databases, platforms and others.
- SMS messaging systems.

- TV and radio programmes.
- Private sector services/extension services.
- Local language and understandable formats.
- To reach out in a community, the traditional structures need to be looked at and used as entry points and for building on (local power structures).
- There are gaps in existing services so small-scale fishers and fish farmers are not always reached.

In the plenary discussion that followed the presentation, it was noted that the whole area of networking merit further attention. There are already numerous informal networks in many places. By looking and analysing these, important lessons can be learnt. To further build and strengthen an existing network, it is important to understand its structure and the power relations among its members. It would appear that a successful network should be a flat organization and no one party should be too influential. Networks for disaster response and preparedness exist in different forms, both as more permanent structures and networks that are built up for a certain response only. There is likely to be learning opportunities between different regions and across sectors in this respect.

With regard to communications, it was noted that radio programmes often constitute an effective means of communication in rural communities. Special radio programmes for fishing and fish farming communities can be a good way of spreading information and interacting. Among local and traditional communication tools, local theatre is also important.

### **GROUP 3: Methodologies and criteria for the design and selection of country case studies/field work**

Group 3<sup>13</sup> focused its discussions around answers to the questions:

- Can we determine a transparent process for choosing the countries in which to spend funds focusing on fisheries and aquaculture?
- How should funds be spent?
- What are the criteria to be used in the selection process?

The discussions of the group were summarized in three categories, i.e. issues to consider, factors to consider in determining priorities and design choices, and approaches to the case studies/field work:

#### **1) Issues to consider:**

- What are the objectives being pursued (e.g., to influence policy, share best practices)?
- Priorities and design may differ between the three themes. However, it is useful to look at interrelationships among the themes because we can learn relevant lessons for all three themes from a given case study, and there are fundamental aspects such as adaptability and resilience that link all themes.
- Priorities and design may differ between fisheries and aquaculture.
- Where is each project on the spectrum: knowledge/research ↔ management/policy? (WorldFish Center builds knowledge while working with partners on management/policy/etc.)

#### **2) Factors to consider in determining priorities and design choices:**

##### *Fishery- and aquaculture-specific factors*

- Extent of poverty versus food security (and level of well-being).
- Fisheries GDP, although noting that GDP is not a good indicator as it stands – it needs a broader analysis. It may be more useful to look at the total number of people reliant on a fishery, including in terms of households. Another possibility is to examine the share of fisheries in agricultural GDP.

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<sup>13</sup> The group coordinator was Mr David Brown (FII) and the facilitator Ms Susana Siar (FII). Mr Anthony Charles (Saint Mary's University, NS – Canada) was the group's rapporteur and presenter in plenary.

- Employment/labour force.
- Fish consumption and share of fish in total protein intake.
- Level of "fish dependence" (but what criteria would show this? WorldFish Center is currently working on this issue).
- Countries with large numbers of small-scale fish farmers (aquaculture is important, so high potential benefit of interventions), or those that have small numbers, so organizing farmers may be easier (high feasibility of interventions).
- Marine Stewardship Council (MSC) criteria (but ecolabelling is unlikely to be applicable in the most vulnerable countries).
- Factors relating to food security, e.g., availability of other local food sources (e.g. arable land), level of imports, rate of fish consumption, etc.
- Whether a country is now, or is willing to, look at aspects beyond the fisheries and aquaculture sectors and taking a "bigger picture" approach. The optimal "planning unit" in which integrated approaches can be achieved to deal with food security involves determining a development unit that integrates both the aquatic and terrestrial, and cross-sectoral contributions, e.g. farming. Having a Poverty Reduction Strategy Paper (PRSP) may be an indicator of this willingness to look at the "bigger picture".
- Proxies for potential of aquaculture (level of conflict over fisheries – where high levels implies potential constraints – price trends, imports of fish, etc.).

#### *Generic factors*

- Demand driven (key point is the demand for the work from countries although donors may have preferences with respect to where to concentrate, and this may also depend on resource available).
- Political will and decision-making capability in government.
- Data availability (not a pre-requisite but rather a factor that can affect the approach).
- Presence of institutions.
- National capacity to develop the project.
- Interest within the sector.
- Available resources; do not do a case study of something that is bound to fail.
- Level of personal security.

#### *Specific models for choosing*

- Could consider the ecosystem, the countries, and the beneficiaries.
- Could consider the regional situation, indicators, role of fisheries and aquaculture, or its potential (i.e. considering available resources).
- Could consider country factors such as government policy, percentage of poor people in rural areas, labour force, GDP contribution of fisheries and aquaculture, level of protein intake, disaster frequency affecting fisheries and aquaculture, institutional capacity to undertake the work, the situation of the beneficiaries (e.g. food needs/insecurity). An example – assess: (labour force) x (wealth retained in country, rather than exported away) x (cultural importance, e.g. number of times people eat fish per week).

#### *Approaches to the case studies/field work*

- The approach depends on whether the idea is to do "pilot projects" or to draw lessons.
- It is not possible to draw lessons from a country where a certain approach has yet to be tested but if the idea is to "try something", then choosing a country where little has been done may be useful.
- If choosing locations to look at "best practices", it is better to select places with opportunities that have succeeded ("success stories"). However, if wanting "lesson learning", it is better to look for diverse cases with varying conditions, some of which may not have succeeded.
- Lessons can be learnt from local projects to develop broadly applicable global approaches and lessons extracted from one area can be shared with other areas.

- There is a need to define what is meant by "effective management" and "best practices".
- Regions should be discussed as possible units for interventions, not just countries. There are existing regional collaboration framework that can be approached for regional inputs, e.g. ASEAN mechanisms (for fisheries and climate change) and Caribbean regional fishery mechanism.
- A two track approach could include:
  - Developing global toolkits and best practices and identifying where to work in order to draw lessons (for which a set of criteria for selection is needed), and
  - Facilitating regional systems for knowledge sharing to address currently limited resources and mechanisms.

In conclusion, the group felt it is too early in the process to suggest specific countries or regions for work to be done. There must be a multidimensional understanding of all the various factors and so overly early conclusions would be counterproductive. The relative importance of the factors noted above will be understood once the planning process has proceeded further. Specifically, (a) it is not determined exactly what field work is to be done, (b) the priority should be to respond to country requests, (c) it is necessary to specify how geographically dispersed locations should be, (d) it is important to know where other agencies are working (or will work), to avoid duplication and to link to partnerships, (e) it should be examined how a focus on poverty and food security would influence the choice of countries to work with, (f) it is necessary to understand the possible tradeoffs between the pursuit of food security and poverty alleviation – e.g. high fish production with an export focus may be seen as good from an aggregate food perspective but not from a poverty reduction perspective. A related issue is to find mechanisms for assessing whether poverty reduction and food security objectives are achieved or not, distinguishing between short-term and long-term impacts.

With regard to disasters, there is a need to consider a geographical criterion in order to choose places that have disasters. The case study approach may not be appropriate but there should instead be a selection of "field work countries". Finally, it should be noted that disasters are not necessarily in the future – some may be already present, e.g. disease outbreak affecting fisheries in southern Africa.

The discussion in plenary following the presentation further considered possible criteria for choosing case studies and areas for implementation of the proposed programme. It was noted that there may be useful criteria for which there is currently no data – e.g. with regard to added value created by the sector, nutritional aspects, how different groups (e.g. fish workers and women) are affected by, for example, trade flows, etc – and hence baseline work could be needed. The potential and capacity for networking – at the local level and for scaling up – could be one aspect to assess when selecting programme activities and sites since effective networking could lead to increased programme impact. It was felt that programme efforts should have a people-focus – rather than taking its basis in fish or fish species – and that economic, market and demand aspects needed to be factored in. However, different policy objectives may call for different selection criteria and success indicators. There is a need to be specific about objectives and what one wants to achieve and measure, and the overall policy objectives should be coherent.

## **10. MAKING A DIFFERENCE LOCALLY AND GENERATING LESSONS GLOBALLY**

To further examine some of the issues discussed in the group sessions, four participants were invited to talk about their experiences with regard to processes and methods for how results can be achieved at the field level and at the same time inform policy and programmes at the global level.

### **Improving our understanding of poverty in small-scale fisheries – Experience of the WorldFish Center**

The first presentation was made by Mr Christophe Béné from the WorldFish Center on how we need to improve our understanding of poverty in small-scale fisheries. Experiences from field projects, in particular the FAO/DFID Sustainable Fisheries Livelihood Programme (SFLP), have shown that poverty is a complex concept and that marginalization (social exclusion) and vulnerability are two important dimensions of poverty. WorldFish Center is carrying out work in Mali and Nigeria to investigate what the sources of vulnerability may be. Vulnerability profiles of fisherfolk and farmer households were constructed based on their perception of livelihood problems and challenges. Some of the noteworthy results that came out of this exercise were that the list of preoccupations was topped by similar issues in both fishing and farmer households: food insecurity, lack of cash/access to money and disease/health issues. Among the fisherfolk households, fishery resource related issues were only placed further down the list.

Lessons learnt from this field experience to bring to the global level include that the more severe sources of vulnerability are often related to basic needs. In the small-scale fisheries context, this means that incentives for people to invest in resource sustainability will increase only as other sources of vulnerabilities ranked higher by the community are addressed, and the risk of fishery decline comes to the fore. However, there is also a need to understand how vulnerabilities are linked. In a community where livelihoods are largely based on fishing and related activities, it would be assumed that the availability of food and cash is linked to the availability and state of the fishery resources. This is however not necessarily the way local people perceive the situation.

### **FAO FII bycatch management project – Local, national, regional and global dimensions**

Mr Francis Chopin, FAO FII, continued the session by talking about local, national, regional and global dimensions of bycatch management and reduction of discards. Bycatch and discards are a complex matter that is not only about fish. Bycatch has different meanings in different countries and regions and depending on the local situation, it may be discarded, used as feed in aquaculture or as food fish. The project Reduction of Environmental Impact from Tropical Shrimp Trawling through the Introduction of Bycatch Reduction Technologies and Change of Management (REBYC-1) worked in eleven countries in four different geographical regions. It was relatively straight forward in the sense that it was based on technical solutions, although at the same time relying on partnerships with national government agencies and with the private sector and stakeholders. The lessons from this project is now feeding into the FAO Fisheries and Aquaculture Department's normative work on international guidelines and other activities and outputs at the global level. A follow-up project – to be started in the Southeast Asia region – is also in the making, based on the experiences from the earlier project as well as the increased accumulated global knowledge on bycatch management. Bycatch needs to be seen in the wider multidimensional context of unsustainable fishing, climate change, food security and the environment. FAOs's role in project implementation will be more as a facilitator and the activities to be carried out country driven according to local needs and circumstances.

### **Local actions and global lessons: a view from a researcher (Saint Mary's University)**

Mr Anthony Charles from Saint Mary's University (SMU) in Halifax, Nova Scotia – Canada, was the next speaker and shared his views as a researcher on local actions and global lessons. Some lessons learnt from experience working with the small-scale fisheries sector and coastal communities included that:

- It is important to incorporate context-specific values of local people when looking at small-scale fisheries and people-centred approaches are needed for their management
- Working with small-scale fisheries means listening to and working with communities, and participatory research and capacity building are needed. Decision-making has to be culturally appropriate. For example indigenous knowledge – encompassing the notion of a close link between humans and nature – should be incorporated, where appropriate.

- There is a need to link small-scale fisheries and the EAF, and also to link EAF and wider marine spatial management (e.g. integrated management – IM) and sustainable livelihoods approach (SLA) frameworks. The approaches are closely linked and overlapping and it may not be important what exactly the approach being used is called as long as it is appropriate for the grassroots level. Indeed, local communities may well have their own wording for these holistic approaches. Work is ongoing at SMU and elsewhere to develop a community-based version of EAF.
- The indicators that are used for monitoring and evaluation also need to be context specific and appropriate for small-scale fisheries. Participatory governance comes in many forms, such as co-management, and should include local solutions to issues like fleet overcapacity. "Reflection" through "learning circles" is often a suitable people-oriented approach rather than formal "evaluations".

There are also a number of lessons learned across scales, i.e.:

- Balance temporal scales (e.g. immediate community needs and slower institution-building administrative needs).
- Balance geographic scales (e.g. large administrative spaces and local place-based community scales)
- Balance goals (intra/governmental coordination, local needs, conflict management, ecosystem health, etc).
- Learn how to "scale up" and "scale down" to match up community-level and government-level processes.
- Communities highlight that when the intrinsic valuing of place-based community resonates within government, it is key to local "buy-in".

### **Sustainability in small-scale shell fisheries: insights from South America**

Mr José (Lobo) Orensanz, Centro Patagónico Conicet (CENPAT) in Argentina, presented insights from three small-scale fisheries in South America with regards to how specific circumstances and the local context have to be taken into account:

- 1) In central/north Chile territorial use rights (TURFs) were introduced *de novo* during the 1990s. Territoriality had its origins in "caletas" and their adjacent fishing grounds, the social-economic-ecological constitutive cells of Chilean artisanal benthic fisheries. The latter have been heavily reliant on loco (an abalone-looking snail), which was heavily overfished during the late 1980s. Because of apparent signs of depletion, the loco fishery was nominally closed between 1989 and 1992. A main effect of that draconian measure was turning the activity illegal, with disastrous consequences for fishing communities. Illegal fishing did not stop while the fishery was closed, and the main result of the closure was the marginalization of the fishermen. The fishery was reopened in 1993 under an individual quota regime, which failed mostly due to poor enforcement. By 1998, when the fishery was approaching a new crisis, TURFs started to be implemented. TURFs were motivated by experiences in which fishermen (in some cases assisted by scientists) started protecting tracts of sea bed during the late 1980s. Having secure access to the highly productive tracts of sea bed has provided the right incentives for fishers to protect their own resources. While successful in terms of biological sustainability, however, implementation of the TURF system led to a number of still pending problems relating to social equity and economical efficiency.
- 2) In the lobster fishery of the Juan Fernández Archipelago, off Central Chile, the number of boats has remained stable (~ 50 boats) for decades, although access was not formally restricted, and even while artisanal fisheries in the continent went through devastating crises. Sporadic stock assessments contracted by the centralized fisheries administration repeatedly concluded that the stock was overfished and recommended the introduction of a total allowable catch (TAC) system. It was not apparent, however, that a traditional tenure system effectively restricted the size of the

fishing force, and consequently fishing effort. This, together with simple and generally honored management measures (season, size, no berried females) ensured the sustainability of the fishery over decades. Fishers or members of their families "own" the spots ("marcas") where traps can be deployed. Use and transfer of marcas is regulated by complex, unwritten and honored rules. Introduction of a TAC in this system would have been dramatically disruptive. The local fishermen association, with assistance from their own "barefoot ecologists", has taken the lead to document the marcas system and develop reliable indicators to monitor stock status.

- 3) A small-scale scallop dredge fishery boomed and collapsed in San Matías Gulf (Argentina) between 1968 and 1972. Inspection of the fishing grounds suggested that dredging had a severe impact on scallops and their habitat. In fact the grounds never recover their pre-collapse productivity. When new grounds were discovered during the 1970s in the adjacent San José Gulf, some entrepreneurial fishermen collaborated with scientists to develop commercial diving as an environmental-friendly alternative. Dredging was banned, and the commercial diving fishery grew, largely unregulated, over two decades. By 1996 the grounds had been depleted due to good market conditions and uncontrolled effort. The fishery collapsed and was closed during four years. In 2000 the 16 teams that had survived the crises harvesting less valuable alternative resources came up with a comprehensive limited entry plan. A moratorium was introduced (21 teams), annual surveys have been conducted jointly by scientists and divers, and a technical committee was setup with participation of fishers scientists and managers. A TAC is agreed upon in the committee, and split in equal quotas. The stocks recovered quickly and the fishery has been active again over the last decade.

In these three cases solutions contributing most effectively to the sustainability of the fishery originated within the fishing communities: tending to tracts of seabed conducive to territorial use privileges in Chilean benthic fisheries, the "marcas" traditional tenure system in the Juan Fernández lobster fishery, and commercial diving as an environmentally-friendly alternative to dredging, and later a comprehensive limited entry program in the Argentine Patagonia scallop fishery. By contrast, measures concocted by highly centralized fisheries authorities and imposed top-down had (or could have had) disastrous consequences: individual quotas in the Chilean loco fishery, a TAC in the Juan Fernández lobster fishery (repeatedly recommended but never implemented), and the *statu quo* (size, seasons, dredging and licenses) in the Argentine Patagonia scallop fishery.

The main lessons learned from these examples are:

- One-size does not fit all, e.g. quotas work in some cases, not in others, etc. Solutions need to be tailored to the specific nature of the fishery.
- Build upon existing fishing practices and management systems, involving all stakeholders in the process. Understand the system before advancing generic solutions in a top-down fashion.
- Align incentives – management systems need to encourage responsible behaviour by all parties (not only fishermen – also scientists, managers, etc.).
- Allow a diversified portfolio of options. Do not lock fishers into single-species permits, or too small areas.
- Promote arrangements under which monitoring and the provision of scientific/technical support are rooted within the community, e.g. through Prince's "barefoot ecologists".
- Emphasize simple regulatory rules, as opposed to costly analytical assessments

### **Red Crescent Society cyclone preparedness programme (CPP) in Bangladesh**

Björn Eder from the Swedish Red Cross briefed the workshop participants on the power of grassroots networks and partnerships. In Bangladesh, the national Red Cross Society – with the support of the Government, scientific centres and other partners – has set up a community-based Cyclone Preparedness Programme (CPP) in coastal districts threatened by cyclones. The system was created in the aftermath of the devastating cyclone season in 1970 that took half a million lives. Today, the CPP

can alert 8 million people living in high-risk coastal areas and the system has been expanded to cover also other natural disaster threats. In teams of 12, village-based volunteers are trained in rescue and evacuation. A total of 33 000 volunteers are part of the programme, passing on alerts received via radio to their village communities, and casualty rates have come down significantly. The approach has been replicated in many other countries and provides important lessons on how to recruit, train and manage volunteers who are critical to reach large number of people in sometimes remote areas.

## 11. REPORTS ON GROUP DISCUSSIONS 3: LOGFRAMES AND NEXT STEPS

The purpose of the last small group discussions was to develop a logframe for each theme (objectives and outputs). Groups were also asked to reflect on the next steps of the programme inception phase. Participants were organized in groups by themes in the same way as for the first day group discussions. The main components of the logframes for each theme are presented below. The discussions on the continuation of the inception phase are included in the subsequent section on "Next steps in the inception phase".

### THEME 1: Small-scale fisheries and aquaculture

Group 1<sup>14</sup> had first discussed what was meant by poverty alleviation in the context of small-scale fisheries and aquaculture. The group agreed that a programme for poverty alleviation should both be having an impact in the sector itself and contributing to the economy as a whole. Four components had been identified for the theme 1 logframe: data, policy, practices and market access. These components led to the definition of the following logframe elements:<sup>15</sup>

*Development objective:*

Increased contribution of small-scale fisheries and aquaculture (SSF and SSA) to poverty reduction and food security

*Immediate objective 1:*

Increased awareness and understanding of SSF and SSA for poverty reduction and food security (in both senses: within SSF/SSA sectors and beyond them)

*Outputs (immediate objective 1):*

1. Improved global/regional/national/local data and information on SSF and SSA
2. Awareness-raising, strategies and approaches for various target groups
3. Systems for monitoring progress established (at all levels)
4. Mechanisms for sharing and exchange of experience in collection/dissemination established

*Immediate objective 2:*

Adoption of policies (not only in the fisheries and aquaculture sectors) that enhance the contribution of SSF and SSA to poverty alleviation and food security

*Outputs (immediate objective 2):*

1. Small-scale fisheries and aquaculture are integrated in poverty reduction strategies (PRSPs include and have integrated SSF and SSA)
2. Integrating SSA/SSF into the decentralization process (decentralization process have SSA/SSF integrated)
3. SSA/SSF are included in national food security strategies
4. Policy that promote the subsidiarity principle into relevant policies.
5. Policy to support the local empowerment and capacity of SSA/SSF
6. Policies that promote the human rights based approach at local or national level

<sup>14</sup> The group coordinator was Mr Rolf Willmann (FIE) and the session was facilitated by Ms Rebecca Metzner (FIE). Ms Nila Petralli (FIE) was the rapporteur. Chris Béné presented the group outcome to the plenary.

<sup>15</sup> A logframe in table format also including activities can be found in Appendix F.

7. Reallocation policies to support SSA/SSF and provide secure access rights
8. Pro-poor fisheries management policies applied to SSF and other fishery components
9. Creating simplified versions of the policies to reach the people on the ground (communication/dissemination of the policies at all levels)
10. International guidelines on SSF adopted
11. Policy analysis toolkit for sectors outside fisheries and aquaculture
12. SSA/SSF integrated into cross-sectoral policy processes (or in the policies of other sectors that are relevant) (SSA/SSF recognized as stakeholders in other sectors)

*Immediate objective 3:*

SSF, SSA, other stakeholders and their organizations are enabled and empowered to adopt practices and approaches that contribute to poverty alleviation and food security

*Outputs (immediate objective 3):*

1. Practices/guidelines developed and disseminated through networks/partnerships
2. SSA/SSF organizations established, recognized, functional and networked
3. National strategies and plans supporting SSA/SSF are developed and implemented (including cross-sectoral ones)
4. Effective cross-sectoral integration mechanisms, approaches and practices

*Immediate objective 4:*

Improve market access. Creation, development and expansion of markets: institutions, arrangements and market structures to support the contribution of SSF and SSA to poverty alleviation and food security, both at the domestic and international level.

*Outputs (immediate objective 4):*

1. Market information (research, assessment etc at both domestic and international level) for SSA/SSF
2. Post-harvest intervention for SSA/SSF
3. Market knowledge dissemination for SSA/SSF
4. Organization of SSF and SSA
5. Physical infrastructure – location of sites for SSA/SSF
6. Technical know-how and expertise for SSA/SSF
7. Linking SSA/SSF to buyers/Buyer-seller matching
8. Promotion of products from SSA/SSF
9. Market monitoring and feedback
10. Lobbying for marketing of products from SSA/SSF

## **THEME 2: The ecosystem approach to fisheries and aquaculture**

Group 2<sup>16</sup> had some discussion on the inclusion of both small and large-scale fisheries and aquaculture in the proposed programme. It was agreed that special consideration should be given to the small-scale sector but large-scale fisheries and aquaculture should not be excluded as they may be very relevant to food security through labour, involvement of women etc. The following logframe components were defined:

*Programme goal:*

Responsible and sustainable use of fisheries and aquaculture resources make an appreciable contribution to human well-being, food security and poverty alleviation

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<sup>16</sup> The coordinator for theme 3 was Ms Gabriella Bianchi (FIM) and the session was facilitated by Ms Doris Soto (FIM). Mr Philip Townsley acted as rapporteur and presented the conclusions to plenary.

*Development objective:*

Sustainable production for optimal societal benefits through implementation and development of the ecosystem approach to fisheries and aquaculture

*Immediate objective 1:*

Contribute to the development of adequate policies for EAF/EAA implementation

*Output 1.1*

Tools and methodologies developed and applied to address appropriate policy changes to enable EAF/EAA implementation

*Immediate objective 2:*

Contribute to establishment of suitable institutional arrangements in support of EAF/EAA implementation

*Output 2.1*

Tools developed for analysis of appropriateness of existing institutional arrangements and for identification of most suitable institutional set up for EAF/EAA implementation

*Immediate objective 3:*

Build capacity for EAF/EAA implementation at all levels (policy, management, research)

*Output 3.1*

Tools and methodologies for building capacity, ownership and application of EAF/EAA identified/developed, with special consideration to SSF/SSA and at the community level

The development of tools should take the following into consideration:

- Simple
- Have conceptual framework/basis
- Case study-based
- Best practices
- Field tested
- Disseminated

### **THEME 3: Reduced vulnerability to natural disasters and climate change**

Group 3<sup>17</sup> had defined the development objective the same way as group 2. In the further elaboration of the logframe components, the effects of climate change were taken into account more explicitly. The group had also considered other disasters in addition to weather related natural disasters. The following logframe components were identified:

*Development objective:*

Responsible and sustainable use of fishery and aquaculture resources make an appreciable contribution to human well-being, food security and poverty alleviation

*Immediate objective:*

Reduce the vulnerability of fishing and fish farming communities to disasters and climate change

*Outputs:*

1. Livelihoods are enhanced, diversified and secured
2. Capacity and mechanisms to manage disaster and impacts of climate change at the community level are improved

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<sup>17</sup> The group for theme 3 was coordinated by Mr David Brown (FII) and facilitated by Susan Siar (FII). Mr Pedro Bueno (private sector, Thailand) was the rapporteur and also presented the group's results to plenary.

3. National-level capacity to prepare for and respond to disasters and adapt to climate change is improved
4. Global, regional, national cooperation and coordination for management of disasters and climate change impacts are strengthened

## 12. NEXT STEPS IN THE INCEPTION PHASE

From the discussions in groups 2 and 3<sup>18</sup>, a number of steps for how to proceed were identified:

*From group 2 – The ecosystem approach to fisheries and aquaculture:*

- Identify and liaise with partners and existing networks at the regional and interregional levels
- Identify countries/regions with demand
- Mapping ongoing programmes relating to the outputs
- Identify models of successful EAF/EAA projects
- Consider developing a draft framework for capacity building (Output 3.1)

*From group 3 – Reduced vulnerability to natural disasters:*

- "Getting donors interested" (encourage more investments)
- Make a stronger case on the importance of fisheries and aquaculture (nutrition)
- Promote awareness on the comparative advantage of fish (food, nutrition, livelihoods, economy, etc.)
- Raise awareness of the extreme vulnerabilities of fisheries and aquaculture communities
- Validate the outputs of this meeting – further consultations with regional and national stakeholders (partnership with regional institutions)
- Develop baseline information
- Revisit coordination arrangements on DRM for the sector
- Establish partnerships
- Identify "champions" at different levels
- Form a steering group

A discussion in plenary followed and a number of issues and suggestions were brought forward. The inception phase for developing the global FAO programme is expected to continue for about another year to give sufficient time for consultations also at regional and national levels. There is a deadline for presenting a programme document to Sida in the middle of 2010 but this is not likely to be the final global programme but a "work-in-progress" document to continue building on. When taking a participatory and consultative approach, it has to be accepted that considerable time is required and that some things cannot be detailed – because also programme implementation should be participatory, there needs to be flexibility. It was felt that establishing partnerships was a matter of urgency and efforts should also be made to attract donors. This led back to what had been discussed earlier regarding the need to raise the awareness of the importance of the fisheries and aquaculture sector and in this way also be able to attract funding for the sector. Improved information and baseline data are needed for this process. Moreover, along with creating partnerships during the programme inception phase, it was also suggested that a framework for capacity building be developed so that the establishment of national and local ownership can be supported.

Critical issues for the conceptualization of the programme include the need for a vision for what the programme is trying to do in the longer term: where do we imagine that fisheries and aquaculture will be in relation to poverty alleviation and food security in ten years time? It will also be necessary to think about exactly how the sector will contribute – by making people who are working in fisheries and aquaculture better off or by making more people involved or by giving people in fisheries and aquaculture a wider range of things to do. It should also be remembered that poverty alleviation and

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<sup>18</sup> Group 1 did not discuss next steps due to time constraints.

food security are not only about production but also concerns people outside the sector – the consumers – and hence drivers such as demand and markets are important aspects to consider.

While the three different themes of the programme are closely interlinked and need to be seen as integrated parts of the overall programme, there are also differences in their current level of readiness and slightly different paths may be needed to further elaborate the details of each of the programme components. It was felt that the small-scale fisheries component was fairly far advanced having been able to take advantage of earlier consultations and discussions, in particular the 2008 Bangkok Global Conference on Small-scale Fisheries.<sup>19</sup> Partnerships already exist on some aspects of the proposed programme and there is a rather clear view on what needs to be done. Small-scale aquaculture suffers from a lack of socio-economic data and information on the number of people involved in the sector as well as on their poverty context is urgently needed to better understand its potential. There is also a need for a discussion on the respective roles of small and large-scale aquaculture activities in poverty alleviation and food security. This discussion has already been initiated in the context of EAF/EAA.<sup>20</sup> While not excluding large-scale fisheries and aquaculture, it will be important for the logic and rationale of the programme to be clear about what impacts – and how these impacts are generated – the proposed actions and strategies will have on poverty alleviation and food security. The programme should be a pro-poor programme and this notion should be a fundamental premise on which it is developed.

The disaster preparedness component is a relatively new undertaking by the FAO Fisheries and Aquaculture Department and more efforts are likely to be needed for identifying partners and priority activities. With regard to the ecosystem approach to fisheries and aquaculture, there may be a need to better clarify the link between EAF/EAA and poverty alleviation and food security. While the general reasoning and principles are clear – sustainable fisheries and healthy ecosystems are a prerequisite for the long-term sustainability of resource dependent livelihoods – more thought may need to go into explaining the different steps in the short and medium-term.

In the more immediate future, a next step will be to prepare a report of the workshop. This document will of course be circulated to all participants and further actions will be planned by the FAO Fisheries and Aquaculture on this basis.

### 13. CONCLUSIONS AND RECOMMENDATIONS

The last item on the agenda of the workshop was the *Workshop Summary and Conclusions and Recommendations*. While many of the discussions had contained a great deal of detail, an attempt was made to summarize the main points and highlights:

- The three themes proposed for the global programme on fisheries and aquaculture for poverty alleviation and food security are comprehensive and relevant. There are also clear linkages between them, and food security, poverty alleviation and sustainable use of natural resources are all interlinked. Still, the themes should be carefully reviewed in the light of previous experiences and the outcomes of this workshop to fill gaps, avoid duplication and create coherence among the different programme components.
- There is a need to bring fisheries and aquaculture (with a special focus on small-scale) higher up on the poverty alleviation, food security and DRR agenda, and to raise the profile of the sector. To do this, better baseline information is needed and key indicators should be identified. The contribution of the sector to nutrition is such a key indicator, but not the only one. Methods for collecting the relevant information are likely to exist but they need to be applied to small-scale fisheries and aquaculture, and DRR.

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<sup>19</sup> See footnote 10.

<sup>20</sup> See comment under THEME 2: *The ecosystem approach to fisheries and aquaculture* on page 26.

- There are close links between climate change and the proposed programme themes. DRR and climate change adaptation both strive to increase resilience. By increasing the social and economic resilience of small-scale fishers, fish farmers and fish workers through, *inter alia*, improving governance and taking a holistic approach to supporting livelihoods, their ability to adapt to climate and other global changes will be strengthened.
- A pro-poor programme does not exclude large-scale fisheries and aquaculture, e.g. with regard to the implementation of EAF/EAA, but the focus on poverty alleviation and food security should be clear and the small-scale sector should be given special attention.
- To achieve sustainable results, interventions need to be firmly anchored in the regional, national and local context.
- To capitalize on the potential contribution of small-scale fisheries and aquaculture's contribution to poverty alleviation and food security, a not only cross-sectoral but a holistic and integrated approach is needed that is aligned with the reality of local livelihoods.
- Related to the necessity of holistic approaches, there is a need to include small-scale fisheries and aquaculture in overarching national plans for poverty reduction, food security strategies or DRR plans and vice-versa.
- Fisheries and aquaculture sector policies and programmes should be informed by a human rights approach to development that is pro-poor and gender sensitive.
- The reality and different facets of poverty need to be understood and taken into account. Livelihoods in fishing and fish farming communities are complex and diverse, including a range of coping strategies for dealing with threats. Poor people's own perception of the sources of their vulnerability needs to be respected for them to become effective partners and their resilience should be strengthened building on existing coping strategies and adaptive advantages.
- Vulnerability to disasters is amplified by and nested in this larger picture of vulnerabilities and poverty. DRR strategies need to recognize and integrate this wider context.
- While scaling up is important, it does not necessarily mean replicating. There is no "one size fits all" and local values, rights and needs must guide interventions. Stakeholder participation and interventions that build on existing structures and knowledge should be prioritized.
- The challenges to advance the poverty alleviation and food security agenda are considerable. Concerted efforts and partnerships at different levels and scales are needed (e.g. between donors, donors and partner countries, governments and communities, and among stakeholders). It is also vital to build up national and local ownership in accordance with the Paris Declaration and this should be a key requirement for the inception phase and beyond.
- Networking and partnerships can also be used to scale up successful pilot and test activities and share best practices
- Local-regional-global linkages, coordination and cooperation at all levels are essential. Capacity should be strengthened or developed to enable this.
- Addressing issues of institutional change and influence policy and policy processes is key to achieving sustainable positive changes in the sector. Identifying and working with champions that can lead change and developing the capacity of actors in the sector is important. Cluster approaches, networking and organizational development – i.e. building, strengthening and empowering organizations – are powerful methods for improving the opportunities of small-scale producers to meet their goals.
- Work towards food security and poverty alleviation in fisheries and aquaculture should be informed by the ecosystem approach (EAF/EAA). In the small-scale sector, EAF/EAA should build on local contents and be "community based". The approach needs to be introduced incrementally – addressing gaps in existing structures and capacities – with simple and manageable tools. Learning by doing, adaptive management and action research are key concepts.
- Projects and programmes need to have explicit exit strategies, meaning a focus on a more rigorous and analytical approach to ensuring sustainability after the end of a project.
- Among several livelihood strategies, market arrangements, market access and related institutions are critical for small-scale producers.
- Communication and information flows are critical at several scales and levels. For actors – at all levels – to use, react to and act on information, it needs to be communicated and presented in a

way that is appropriate to the receiver and the context. This requires different communication strategies and information contents, e.g. broad disaster text, macro-economic elements or local level food supply or nutrition data.



## APPENDIX A

### Agenda

#### 1. Tuesday, 27 October 2009

- 08.45 to 09.15 Workshop registration
- 09.30 Welcome by Mr I. Nomura, ADG Fisheries and Aquaculture Department
- 09.45 Introduction of participants
- 10.15 Coffee
- 10.45 Workshop objectives and arrangements
- 11.00 Introduction of three thematic areas
- 11.30 Synthesis of participants written responses to questionnaire
- 12.15 Arrangements for afternoon group discussions
- 12.30 Lunch
- 14.00 Concurrent Facilitated Small Group Discussion on Themes 1, 2, and 3
- 15.00 Thematic gaps & prioritization by region
- 15.30 Coffee break
- 16.00 continued
- 17.30 End of day
- 18.00 Reception by FAO

#### 2. Wednesday, 28 October 2009

- 09.00 to 10.00 Synthesis Reports of Group Discussions of Previous Day  
Themes 1 to 3
- 10.15 to 10.30 Coffee
- 10.45 Workshop objectives & arrangements 15'
- 11.00 Paris Declaration on Aid Effectiveness: A reminder
- 11.30 Partnerships and networks  
Selected short presentations and discussion
- 12.30 Lunch
- 14.00 Concurrent Facilitated Small Group Discussions  
Group 1: Fostering national ownership and Capacity  
Group 2: Partnerships, networks & communications  
Group 3. Methodology and criteria for the design and selection of country case studies/field work
- 15.30 Coffee break
- 16.00 Continued
- 17.30 End of day
- 20.00 Joint dinner (optional)

#### 3. Thursday, 29 October 2009

- 09.00 to 10.00 Synthesis Report of Group Discussions of Previous Day  
Themes 1 to 3
- 10.15 Coffee
- 11.00 Making a Difference Locally and Generating Lessons Globally  
Selected short presentations of experiences and discussion
- 12.30 Lunch
- 14.00 Concurrent Facilitated Small Group Discussions by Themes 1, 2 and 3
- 15.00 A) Developing log frames for each theme at the objective and main output levels only  
(i.e., excluding specific outputs and activities) and B) Reflecting on next steps in the programme inception phase (by theme).
- 15.30 Coffee break

16.00 Continued  
17.30 End of day

4. Friday, 30 October 2009

09.00 Synthesis Reports of Group Discussions of Previous Day  
Part A: Review of log frames  
Themes 1 to 3  
10.15 Coffee break  
11.00 Part B: Next steps in the inception phase  
11.30 Workshop Summary & Conclusions & Recommendations  
12.30 Lunch  
Close of Workshop

## APPENDIX B

### List of participants

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## APPENDIX C

### Prospectus

#### Purpose

In an effort to strengthen our support to member countries, the Department of Fisheries and Aquaculture of the Food and Agriculture Organization of the United Nations (FAO) is developing a global programme for fisheries and aquaculture encompassing both normative activities and country-level assistance. The overall goal of the programme is to ensure that responsible and sustainable use of fisheries and aquaculture resources make an appreciable contribution to human well-being, food security and poverty alleviation. FAO Fisheries and Aquaculture Department hopes to attract external donors to ensure a comprehensive and effective programme.

As a key starting point for the inception phase, FAO is planning a consultative workshop to provide an opportunity for the Organization to discuss needs and priorities in relation to the overall goal and to set the stage for future coordination and collaboration. Members of other relevant intergovernmental and non-governmental agencies, national development agencies, stakeholder groups and other experts are being invited. The workshop will be held at FAO headquarters in Rome from 27 to 30 October 2009.

#### Background

The overall goal of the programme is to ensure that **responsible and sustainable use of fisheries and aquaculture resources make an appreciable contribution to human well-being, food security and poverty alleviation**. The three outcome areas of the programme relate to:

- 1) increased contribution of small-scale fisheries and aquaculture to poverty alleviation and food security;
- 2) sustainable production for optimal societal benefits through implementation and development of the ecosystem approach to fisheries and aquaculture; and
- 3) reduced vulnerability of fishing and fish farming communities to natural disasters.

These three programme outcomes are key departmental and cross-agency areas within the new FAO Strategic Objectives. (The envisaged outputs in support of these three outcomes are given in the Annex.) Importantly, the programme should be harmonized with the ongoing and proposed work of donors, countries, development partners as well as with FAO's planned Regular Programme activities. The key results sought from the inception phase are as follows:

- a) a systematic, coordinated and documented process of identifying and consulting with stakeholders to develop the next level of details of the programme and ensure the interest and commitment of countries and partners;
- b) development of the themes and identification of target beneficiaries, countries and regions in which to undertake case studies, pilot programmes etc;
- c) counterpart and stakeholder capacity building, where required, to ensure effective and broad participation and ownership which will in turn support enhanced programme development; and,
- d) a fully elaborated FAO programme implementation document including a full results based monitoring and evaluation framework.

#### Objective

The purpose of the workshop is to provide input and guidance to FI on above points a) to c), especially in respect to (1) the process and steps needed for establishing local ownership and (2) the selection of priority situations and activities that can produce widely applicable lessons and outcomes.

In relation to specific outputs, the workshop (and inception phase as a whole) should help:

- identify and agree on a process to evaluate the extent and contribution of Small Scale Aquaculture (SSA) to global food security and poverty alleviation, and also develop a plan to complement the ongoing Big Numbers work by FAO, WorldFish and World Bank on small-scale capture fisheries;
- define/design the process of identifying and consulting with stakeholders to further develop the details of the programme and ensure the interest and commitment of countries and partners;
- identify key gaps, priorities, focus areas and cross-cutting issues that should be additionally considered under the programme;
- strengthen FAO's interaction with stakeholders at different levels to identify countries and possible partners for the implementation of holistic and participatory approaches to sustainable aquaculture and fisheries.
- clarify the roles, responsibilities and programmes/activities of relevant agencies/stakeholders involved in disaster preparedness in the fisheries and aquaculture sector;
- bring together different stakeholder groups that have not been communicating closely until now in especially the area of disaster management and preparedness.

The workshop will also provide a forum for consultation with potential partners to seek synergies and complementarities with their programmes and activities. As such it is hoped and anticipated that it will be valuable not only for FAO but also for the other participants and their organizations.

## **Outputs**

A report of the workshop will be produced providing the conclusions and recommendations. These will include:

- Information on ongoing activities and programmes being undertaken, or soon to be implemented, by the various organizations and stakeholders working in the fisheries and aquaculture arenas and specific opportunities for complementarity and partnerships.
- Identification of high priority actions and potential gaps that need to be covered – and by whom.
- Guidance on the best process for input and design of the FAO global programme on fisheries and aquaculture, especially with a view to securing local and national ownership of the proposed programme outcome areas and outputs.
- Guidance on the most appropriate role for FAO to help stakeholders achieve sustained and widely applicable programme outcomes.

## APPENDIX D

### **Opening address by Mr Ichiro Nomura, Assistant Director-General Fisheries and Aquaculture Department**

Ladies and Gentlemen,

Welcome to Rome and welcome to FAO.

I am very grateful that you have accepted our invitation to participate in the inception workshop of our extrabudgetary programme on fisheries and aquaculture for poverty alleviation and food security. I also would like to express my thanks to your organizations or governments which have agreed to your participation.

You may have heard that FAO is going through an important period of reform to make the Organization more efficient and effective. FAO is adopting a results-based management framework that seeks to achieve greater development impact of FAO's normative and country level work. One step to achieve this is by better aligning regular programme work with that one funded from extrabudgetary resources. The Fisheries and Aquaculture Department has been fortunate – or else far-sighted – in that the Code of Conduct for Responsible Fisheries provides – in combination with the United Nations Millennium Development Goals as well as the fisheries specific targets of the Johannesburg World Summit on Sustainable Development (WSSD) – an overarching framework for both normative and field work. While the Department was able to attract generous extrabudgetary funding, especially from its traditional group of Scandinavian donor countries, the Department's field level programme remains grossly underfunded in relation to the demands for assistance by our developing country members. I have no doubt that your own organizations suffer a similar problem. I do not need to highlight in this audience the important roles that fisheries and aquaculture play in many developing countries in terms of livelihoods, poverty alleviation, food security and nutrition. To maintain and further enhance these roles sound policies and strategies are needed and good management approaches and practices. However, there is a large and growing gap between the required capacities and capabilities in many countries to soundly develop and manage the fisheries and aquaculture sector and the available human and financial resources. As FAO's resources will always be scarce in relation to the actual needs, it is of utmost importance that the available funding is used in the most effective and efficient manner. This requires not least to avoid unnecessary overlap and duplication of our work with that of others. On the other hand, our programme should be well aligned and complementary to work done by others in order to create synergies and high development impacts.

We have decided to convene this workshop to consult with you, our partners and participants from client countries, on the processes and approaches to arrive at a programme which can make a difference locally while also generating lessons globally. We have the request from our recent twenty-eighth session of the Committee on Fisheries (COFI) to design a global programme on small-scale fisheries that is informed, inter alia, by the outcomes from the 2008 Bangkok Global Conference on Securing Small-Scale Fisheries. We have also been asked to assist countries in the implementation of the ecosystem approaches to fisheries and aquaculture and to reduce the vulnerabilities of fishing and fishfarming communities from natural disasters, climate change, and economic and political shocks.

The food and economic and financial crisis has dramatically shown the high vulnerability of countries and peoples to financial, economic and political instabilities. It has also starkly revealed the disastrous consequences on the lives of hundreds of millions of people of the past neglect to prioritize agricultural development in the quest to fight poverty and hunger in the world.

On the positive side, after several decades of declining development assistance to food and agriculture, the "L'Aquila" Joint Statement on Global Food Security committed funding support of USD 20 billion over the coming three years. We hope that part of this funding will be channelled towards pro-poor fisheries management and pro-poor aquaculture development. Our envisaged extrabudgetary

programme could provide a road map for directing investments and technical assistance into those areas that hold most promises to achieve the objectives of economic growth, equitable incomes, high quality and nutritious fish food, and the sustainable management of fishery and aquatic resources and related ecosystems.

FAO is committed to the guidance provided in The Paris Declaration on Aid Effectiveness. This is why we place so much emphasis on getting right the process of programme development in collaboration and in coordination with our partners and stakeholders in client countries. We need to ensure that the programme is aligned with national strategies and priorities that have been arrived at through broad consultative processes.

Well, I do not wish to further delay your sharing of experiences and expertises that I am confident will give us important insights in how to go about this important inception phase of our field programme in support of poverty alleviation and food security.

Wishing you a productive meeting and a nice stay in Rome.

## APPENDIX E

### Thematic background papers

# 1. INCREASED CONTRIBUTION OF SMALL-SCALE FISHERIES AND AQUACULTURE TO POVERTY ALLEVIATION AND FOOD SECURITY

## INTRODUCTION

Fisheries and aquaculture make important contributions to meeting the UN Millennium Development Goals (MDGs) on poverty reduction and food security<sup>21</sup> and can be a source of wealth creation, supporting national economic development. In general small-scale fisheries and aquaculture are more directly contributing to attaining these goals than industrial-scale operations even though the economic contribution of the latter can be significant at the national level. In order to sustain and enhance these contributions, a policy environment that enables responsible fisheries and sustainable aquaculture is required together with efforts that actively promote innovative, practical and participatory approaches to resource management and development.

This short background paper seeks to summarize past work by FAO and partner organizations on promoting awareness about the characteristics and critical roles of the small-scale fisheries and aquaculture sectors and about key policies and instruments for pro-poor management and development. It has been prepared to provide a brief introduction for workshop discussions on future assistance needs and cooperation among national and international development partners to increase the contribution of small-scale fisheries and aquaculture to poverty alleviation and food security.

A more complete elaboration of the issues addressed in this note can be found in the papers listed in the "Sources and suggestions for further reading" at the end of this document.

## WHAT DO WE MEAN BY SMALL-SCALE FISHERIES AND AQUACULTURE?

While there is no universally applicable definition of the very diverse *small-scale fisheries* sector, there are some characteristics that generally distinguish large and small-scale operations across countries. Small-scale fisheries have many desirable features and functions on economic, social and cultural grounds. They are basically comprised of household enterprise in pursuit of a livelihood leading to a culturally conditioned way of life in which women play a significant anchoring role. Fishers use small craft and simple gear (though not necessarily simple techniques) of considerable diversity, relatively low capital investment and low energy intensity of the operations. Almost half of the world's fishing vessels are non-motorized and 90 percent of those with engines are less than 12 metres long. Fishing also takes place with handheld gear without a boat.

While there is no strict definition, *small-scale aquaculture* is often based around family labour and ponds or farms are relatively small, based on family land. It ranges from what is commonly known as rural aquaculture – i.e. systems with limited investment, informal management structures and integration with other livelihood activities – or can be commercial undertakings requiring more substantial labour and capital inputs. However, small-scale aquafarmers often have limited access to financial and technical resources as well as poor links with markets.

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<sup>21</sup> Fisheries and aquaculture contribute to several of the MDGs, in particular No. 1 (Eradicate poverty and hunger) and No. 7 (Ensure environmental sustainability).

## WHAT ROLE DO SMALL-SCALE FISHERIES AND AQUACULTURE PLAY?

Fisheries and aquaculture contribute to food supplies, incomes and healthy diets for millions of people all over the world. Small-scale fisheries and aquaculture are particularly important in poverty alleviation, food security and nutritional well-being of many coastal and rural communities in developing countries. Detailed information on small-scale fisheries and aquaculture and their roles is generally not readily available. Official statistical systems tend not to separate out small and large-scale activities. Work has been carried out to address this gap and the so-called Big Numbers Project, a collaborative effort of FAO, the WorldFish Center and the World Bank, carried out case studies in a number of countries to assess the relative contributions of different fisheries subsectors, but excluding aquaculture. Work is also ongoing to develop an integrated assessment framework suitable for small-scale fisheries. Based on these initiatives, it has been estimated that small-scale fisheries in developing countries land more fish than the large-scale sector and nearly all is used for direct human consumption or exports. In the world, there are some 35 million fulltime and part-time fishers. More than 95 percent live in developing countries and 90 percent are small-scale fishers.

Aquaculture, the fastest growing food-producing sector, now accounts for almost half of the world's food fish and is widely considered as having the greatest potential to meet the growing demand for aquatic food. Some estimates suggest there are about 9 million fish farmers worldwide, but this figure is outdated and underestimated.<sup>22</sup> There are no recent figures on the total number of small-scale aquaculture farmers but the contribution of the small-scale sector to overall production and employment is certainly significant. In Asia – where 80 percent of the world's aquaculture production takes place – it is estimated that 70 to 80 percent of the farms are small-scale. However, as the scale is determined on the basis of area (acre or hectare), fairly capital-intensive operations can be found conducted in pond areas that would qualify to be categorized as "small-scale". A counterpoint to the rapid development of global aquaculture is its limited development to date in sub-Saharan Africa. While aquaculture does not yet have the necessary policy, institutional and investment support that it has in Asia, there is a strong belief that Africa has the full natural resource potential for future aquaculture growth. Aquaculture is slowly finding its niche in many countries in Africa but the overall contribution to food supplies and income could be improved considerably, making Africa a high priority region for aquaculture development.

Many small-scale fishers and small-scale aquafarmers are self-employed and engaged both in subsistence activities (i.e. food for the family) and in commercial fishing and farming. They sell fish in local markets but also, in some countries, increasingly their production supply export markets. Processing, marketing and other secondary activities (boatbuilding, transport, ice and slat manufacture, etc.) also provide employment. It is estimated that the fishery and aquaculture industry together provide more than 170 million fulltime and part time jobs globally with the vast majority involved in small-scale operations in developing countries. In addition, many more millions of people are engaged in fisheries as a subsistence activity or side activity, providing a vital complement to incomes and contributing to healthy diets.

The fisheries and aquaculture production sectors are often perceived as very male-dominated because most fishers – those who go out in boats and fish – and the majority of the owners of fish farms are men. But women also play an important role and it is estimated that about half of all people around the world working in fisheries and aquaculture are women. Women are generally key in the post-harvest handling of fish and other aquatic products from their point of landing to reaching the consumer. Women also participate as entrepreneurs and as fish buyers; it is not unusual that they advance money to finance fishing trips or give loans to fishers against a guaranteed supply of fish when the catch is landed. In some countries, it is common that women fish or collect seafood, for example mussels and clams, in coastal or inland waters. Small-scale aquaculture is generally based on family labour

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<sup>22</sup> The estimate of 9 million is included as an indicative figure in *State of World Fisheries and Aquaculture 2008* (FAO, 2009) and is based on official statistics reported to FAO. It is however recognized that some countries do not collect data on aquaculture employment.

including both men and women and can be especially attractive for rural women in developing countries because it may take place close to the home and can be integrated with other food production and household activities. It hence gives women an opportunity to earn an income and increase their control over and impact on household decision-making and nutrition.

## **POVERTY IN SMALL-SCALE FISHERIES AND AQUACULTURE**

During the last decades, a significant evolution has taken place in the international development community with regard to the understanding of poverty. In addition to low income and consumption, qualitative aspects are now also included in the poverty concept with vulnerability and equity as key issues and human rights principles providing an overarching framework for development. The expanded poverty definition has been paralleled by an appreciation that as poverty may have multiple causes and determinants, there is a consequent likelihood that the survival or livelihood strategies adopted by the vulnerable are likely to be equally diverse and/or complex.

In FAO's work, two large field projects – the Bay of Bengal Programme Intergovernmental Organization (BOBP-IGO) in Asia and the Sustainable Fisheries Livelihoods Programme (SFLP) in West and Central Africa – have sought to alleviate poverty in fishing communities. Small-scale fishing communities have long been considered to be among the countries' poor people if not among the poorest. This is explained by a number of factors including, for example, the often remote location of fishing villages and hence limited access to health and educational services, limited access to financial credits because of lack of collateral, and exposure to natural disasters in coastal areas. More specific to their dependence on exploiting a limited natural resource, it has been argued that poverty in fisheries is related to the uncertain or – nowadays in many areas increasingly – low level of fishery resources as a consequence of overexploitation. This argument relates to the open access nature of many fishery resources leading to overcapitalization and dissipation of resource rent as well as too many people chasing too few fish. However, as in the general discussion on poverty referred to above, there has recently been a growing understanding that poverty in fishing and fish farming communities is a complex issue and that socio-institutional aspects are more important than pure economic or biological considerations. This would mean that although overfishing and potential depletion of fishery resources constitute a real threat to many coastal livelihoods, there are other conditions related to social structures and institutional arrangements that may play a more central role in poverty by the way they control how and by whom fishery and other resources can be accessed and used. Insecure rights to land and fishery resources, inadequate or absent health and educational services and social safety nets, vulnerability to natural disasters and climate change and exclusion from wider development processes due to weak organizational structures and representation and participation in decision-making are all factors contributing to poverty in small-scale fishing and fish farming communities.

This argument has important consequences for small-scale fisheries management and the ways in which aquaculture is promoted and supported in a poverty context. Addressing poverty requires that marginalized groups are included in the institutional processes related to resource management and new institutional approaches are needed to secure sustainable resource utilization. However, due to their continuing social exclusion and vulnerability, fishing people may lack the capacity and incentives to participate in resource management and these aspects of poverty need to be addressed first, or simultaneously. Moreover, challenges of sustainable resource use in small-scale fisheries in general can often not be adequately addressed by the standard methods of management applied to large commercial fisheries. The difficulties often include, for example, widely dispersed landing sites, multispecies nature of resources, and fishery resources shared with other communities and sectors. The current trend of devolved management responsibilities and co-management arrangements with strong involvement of local resource users would appear to be the way forward for addressing the existing challenges, but this approach requires not only human capacity at the local level but also legal, practical and community based prerequisites in support of decentralized and shared management.

With regard to aquaculture, concerns have been expressed that interventions have not always directly addressed the needs of the poorest people. Aquaculture, in many ways like agriculture, requires resources and inputs such as fish seed, land, ponds, water, credit and other inputs. Experiences in Asia clearly demonstrate that if aquaculture is properly planned there are considerable opportunities for poor people's entry and poverty reduction. Some types of aquaculture offer significant opportunities for the entry of poor people because they entail low-cost technologies using available on-farm inputs, require limited labour inputs that fit with household divisions of labour and can be integrated into other livelihood and farm activities. While production is small it provides important sources of household nutrition and buffers against shocks. Furthermore, low cost fish products from aquaculture can provide comparatively cheap, accessible and nutritional food for poor people in urban centres, as in the case of tilapia in many Asian countries.

Hence, small-scale aquaculture holds considerable potential to contribute further to poverty alleviation. In order to realise this potential, poverty alleviation should be taken as the strategic starting point for aquaculture interventions. This has significant implications for how interventions are conceptualized, planned and executed, and for the institutional arrangements that need to be in place to support these. Understanding the context of poor people's livelihoods and encouraging more pro-poor orientation of fisheries and aquaculture development are essential for effective poverty alleviation.

At the same time, it has to be recognized that markets, trade and consumption preferences in an increasingly globalized economy strongly influence the growth of the aquaculture sector – and capture fisheries – with clear demands for production of safe and quality products that call for increased emphasis on enhanced enforcement of regulations and better governance of the sector. Small-scale aquaculture is socially and economically important to many rural communities across Asia, but many small-scale aquaculturists face increasing problems with modern market obligations and requirements, including costs associated with scale and modern business structures, inequitable access to markets and market information, difficulties in access to financial and technical services, environmental constraints and increasingly high production standards, food safety and quality assurance requirements. Voluntary and mandatory certification demands from consumers also risk excluding small-scale aquaculture farmers from value chains. Seafood market trends are not working in favor of small-scale aquaculture farmers, and risk perversely impacting their own food security. The social and economic impacts of current trends will be severe for many rural communities across Asia, unless more pro-small-scale aquaculture initiatives are taken.

## **CHALLENGES AND OPPORTUNITIES**

In the past, while many development interventions in small-scale fisheries were implicitly aimed at reducing poverty, most were not explicitly focused on improving the living conditions of the poor but aimed rather at accelerating economic growth through technology and infrastructure development, and through market-led economic policies. The lack of focus on the distributional impacts and long-term economic viability of such interventions may explain the limited results of many interventions. As reported above, some progress has been made in understanding poverty in general as well as its particular characteristics in the context of small-scale fishing and fish farming communities. There have also been efforts made to better understand the characteristics and needs of small-scale operations. The FAO Code of Conduct for Responsible Fisheries does not include a special chapter on small-scale fisheries but it does recognise the important contributions of the subsector and calls for special protection and support. Technical guidelines on increasing the contribution of small-scale fisheries to poverty alleviation and food security have been published to supplement the Code. However, in spite of these efforts and although the small-scale fisheries sector demonstrates a remarkable dynamism, adaptability and resilience to various adversaries, poverty continues to be widespread. Thus innovative approaches and strategies need to be pursued to realize the vision elaborated by the 2004 FAO/UN Advisory Committee for Fisheries Research (ACFR) working group on small-scale fisheries. This is a vision for small-scale fisheries, in human development terms, in which the contribution of small-scale fisheries to sustainable development is fully realized and 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.

Some of the key issues to be considered include:

- More needs to be known on the extent of poverty, the characteristics of the poor, the causes of poverty and what makes people move in or out of poverty. While many countries have undertaken poverty assessment studies, they do usually not refer specifically to fisheries and aquaculture. Moreover, a better knowledge on the real contribution by fisheries and aquaculture to poverty alleviation and food security is needed. The current underevaluation of the sector is re-enforced by poor data.
- The institutional arrangements need to be reviewed and cross-sectoral and inter-agency collaboration promoted to address poverty and food security in fishing and fish farming communities. An issue is whether national programmes for poverty reduction (e.g. Poverty Reduction Strategy Papers/Programmes – PRSPS) reach small-scale fisheries and aquaculture and – if not – why and what can be done about it.
- A sustainable use of fishery resources needs to be secured by addressing resource access and use rights. It would appear that new resource management frameworks that are appropriate for small-scale fisheries are needed and more information is needed on how different resource access conditions, coping and insurance mechanisms, and other specific characteristics influence the incidence of poverty.
- At the same time, it should be recognized that development investments that focus narrowly on aquatic tenure reform will not gain effective support of fisherfolk who live insecure lives and do not perceive the decline or possible collapse of fish stocks as the most immediate threat to their well-being. Vulnerable people do not necessarily have the luxury of being effective long-term resource stewards and the poor living conditions often characterising small-scale fishing communities are both partly an outcome of inadequate fisheries management and a constraint to improving resource management.
- Fishing and fishery related activities may only be one of several livelihood strategies adopted by the households to reduce vulnerability and ensure survival. The development opportunities across all economic activities need to be taken into account in a comprehensive livelihoods approach.

Also in aquaculture, an improved understanding of poverty and effective resource management are at the centre of the future challenges for sector. These include ensuring that the full potential of aquaculture to contribute to poverty alleviation and food security is realized, and that a nutritious, safe, high-quality product that is affordable, acceptable and accessible to all sectors of society, is produced. This will require greater participation of poor people, existing producers and other stakeholders as well as innovative institutional arrangements and partnerships between governments, NGOs, civil society groups and donors, as well as new partnerships with the growing global seafood business, which in many ways has an important influence on the growth of the aquaculture.

Recognizing the importance of aquaculture to global food security and rural socio-economic development, and to analyse the sector's future development, FAO has partnered with NACA and the Government of Thailand to co-organize the Global Conference on Aquaculture 2010 to be held in Bangkok, Thailand. One of the session themes is the contribution of aquaculture to poverty alleviation, food security and rural development, and the objectives of the conference are to:

- review the present status and trends in aquaculture development
- evaluate the progress made in the implementation of the 2000 Bangkok Declaration and Strategy, agreed on in the Conference on Aquaculture in the Third Millennium

- address emerging issues in aquaculture development
- assess opportunities and challenges for future aquaculture development
- build consensus on advancing aquaculture as a global, sustainable and competitive food production sector

The global conference on "Small-Scale Fisheries – Securing sustainable small-scale fisheries: Bringing together responsible fisheries and social development", co-organized by FAO and the Royal Government of Thailand and convened in collaboration with the Southeast Asian Fisheries Development Centre (SEAFDEC) and The WorldFish Center in Bangkok on 13–17 October 2008, covered a wide range of issues including broader social and economic development and human rights issues. A special focus of the Conference was on securing access and user rights by small-scale fishers and fishing communities and indigenous peoples to coastal and inland fishery resources that sustain their livelihoods.

The Conference reinforced the claim that small-scale fisheries have yet to fully realize their potential to significantly contribute to sustainable development and the attaining of the UN MDGs. The Conference did not produce a unanimous statement but identified several critical ways forward in securing sustainable small-scale fisheries that integrate social, cultural and economic development, address resource access and use rights issues guided by human rights principles, and recognize the rights of indigenous peoples. It reaffirmed that human rights are critical to achieving sustainable development (see Box 1).

An overriding message from the Conference was that the people of small-scale fisheries and their daily realities are marginalized and that the situation is getting worse. In aquaculture, a much stronger focus on small-scale fish farming is required along with support to developing strategies and actions for raising the profile of small-scale aquaculture, and implementing more effective pro-poor aquaculture development. It is hoped that the present day represents a turning point and that the many signs that change is occurring – through the increased attention and resources for small-scale fisheries and aquaculture – will lead to concrete results in the form of secured and enhanced contribution of the small-scale fisheries and aquaculture to poverty alleviation and food security.

#### **Box 1: The global conference on small-scale fisheries – The way forward**

A common tenor of the Conference was that small-scale fisheries had been neglected for too long and that more national and international efforts were needed to recognize and protect their traditions, values and societal roles and support their rightful place in development as it was them that contributed most directly to achieving the UN MDGs.

Various areas were identified for priority action at **national level** including the adoption of a human rights framework for social development; the empowerment of community organizations, giving more decision-making power to women; support to adaptive co-management that accounts for traditional knowledge and customary rights; protection and legislation of the rights of small-scale fishing communities to fishery resources and land; access to credit; support to diversified if not alternative sustainable livelihoods; access to basic social services; and overarching capacity building and networking.

At the **international level**, there was a call for an international instrument on small-scale fisheries. This could be a special chapter on small-scale fisheries in the Code of Conduct for Responsible Fisheries or an International Plan of Action (IPOA) or international guidelines. There was also the call for a dedicated global programme on small-scale fisheries under the purview of FAO which would be guided by COFI or if Members so wish a special Sub-Committee on Small-Scale Fisheries.

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## **2. SUSTAINABLE PRODUCTION FOR OPTIMAL SOCIETAL BENEFITS THROUGH IMPLEMENTATION AND DEVELOPMENT OF THE ECOSYSTEM APPROACH TO FISHERIES AND AQUACULTURE**

### **INTRODUCTION**

The need for more holistic approaches to natural resource management is now widely recognized. This acceptance is reflected in the Plan of Implementation of the World Summit on Sustainable Development (Johannesburg 2002) – WSSD – and in various other instruments at the international and national levels. Many governments and organizations are moving towards implementing ecosystem based approaches to fisheries and aquaculture.

Despite the name that may indicate that natural ecosystem concerns are the focus of this approach, the FAO ecosystem approach to fisheries (EAF) tries to balance the human dimensions with the natural aspects of fisheries in a holistic, integrated and participatory manner. In the same way, the ecosystem approach to aquaculture (EAA) prescribes that aquaculture development should not be harmful to ecosystems beyond resilience at the same time as it has as its main objectives to improve human wellbeing and to be developed with consideration of other sectors. While general principles are well accepted and understood, great challenges still remain in actual implementation. Harmonization of EAF and EAA with national policies within the sector but also in relation to overall development policies still remain major challenges.

This short background paper outlines the principles and rationale behind EAF and EAA and discusses current and future challenges and opportunities of implementing an ecosystem approach to natural resource management. Its purpose is to provide information for the discussions on the future work of FAO, in collaboration with other development partners, in further developing and implementing these approaches within the context of sustainable fisheries and aquaculture.

A more complete elaboration of the issues addressed in this note can be found in the papers listed in the "Sources and suggestions for further reading" at the end of this document.

### **WHAT IS AN ECOSYSTEM APPROACH TO FISHERIES AND AQUACULTURE AND WHERE DOES IT COME FROM?**

To apply an ecosystem approach to fisheries and aquaculture means harvesting and producing fish to meet people's needs today but at the same time making sure that also future generations will be able to benefit in the same way. The ecosystem approach takes a broad and integrated view at fisheries and aquaculture, by looking beyond specific fish species and fishing boats or fish ponds aquaculture systems etc. and incorporating, among other things, concerns for other animals and plants in the ecosystem. The approach also considers the well-being of dependent communities and aspects related to fish processing and markets, and the desires of stakeholders outside the fishery or fish farm itself. EAF and EAA also advocate precaution – that is to apply prudent foresight when there are uncertainties about possible effects and, for example, fish less rather than more and introduce better management practices in fish farming – transparency and equitable distribution of benefits. In a nutshell, the ecosystem approach to fisheries and aquaculture considers the ecological and social aspects of fish production plus the ability to address them, i.e. the institutional, governance aspects and external forcing factors.

The *ecosystem approach to fisheries (EAF)* is becoming the main reference framework for managing fisheries and implementing the principles of sustainable development. The purpose of an EAF is to plan, develop and manage fisheries in a manner that addresses the multiple needs and desires of societies, without jeopardizing the options for future generations to benefit from the full range of goods and services provided by the aquatic ecosystems. The approach strives to balance diverse societal objectives, by taking account of the knowledge and uncertainties of biotic, abiotic and human

components of ecosystems and their interactions and applying an integrated approach to fisheries within ecologically meaningful boundaries

Elements of the *ecosystem approach to aquaculture (EAA)* have been practiced for many years in small-scale inland aquaculture activities, particularly in Asia. However, a more holistic planning and implementation process, that considers simultaneously the ecological and socio-economic components of the system, at different scales of implementation, has been less implemented. The EAA provides a planning and management framework whereby parts of the aquaculture sector can be effectively integrated into local planning and affords a clear mechanism for engaging with producers and government for the effective sustainable management of aquaculture operations.

The principles underlying EAF and EAA are not new; they are rooted in a number of international instruments and agreements dating back to the Declaration of the UN Conference on the Human Environment ("Stockholm Declaration" in 1972) and the UN Convention of the Law of the Sea (UNCLOS) adopted in 1982. The approaches adhere to the principles agreed on in the 1992 UN Conference on Environment and Development (UNCED) and subsequent initiatives with regard to sustainable development. EAF was more explicitly addressed in the Reykjavik Declaration, which was adopted at the Reykjavik Conference on Responsible Fisheries in the Marine Ecosystem, Reykjavik, 1–4 October 2001, organized jointly by the Government of Iceland and FAO with the co-sponsorship of the Government of Norway. The Bangkok Declaration and strategy to promote sustainable aquaculture was launched and adopted during the Global Aquaculture Conference in Thailand in 2000.<sup>23</sup> This declaration focused on the implementation of the *FAO Code of Conduct for Responsible Fisheries – CCRF* (1995) to the sector with an ecosystem perspective. For both EAF and EAA, the principles, concerns and policy directions are all contained in the provisions of the CCRF (1995). The EAF and EAA highlight those principles and make their application more compelling (see also Box 2).

## CHALLENGES AND OPPORTUNITIES

Many fishery resources around the world are today in a precarious state. Conventional fisheries management frameworks focusing on target species fish stocks have in many instances proved inefficient in controlling fishing effort and dealing with the complexities of marine ecosystems. In aquaculture, while the development and promotion of better management practices have made important contributions to responsible fish farming, there has been a lack of a holistic and integrated approach that takes ecosystem linkages into account.

Ineffective management practices are extremely costly, both in terms of ecological and socio-economic damage. Many countries are now experiencing:

- intra- and intersectoral conflicts;
- depleted fishery resources;
- degraded coastal environment and critical fisheries habitats;
- dissipated resource rents;
- illegal fishing;
- inequitable distribution of benefits from harvest and post-harvest activities; and
- increased poverty in small-scale artisanal fisheries and aquaculture.

All these could be avoided by better fisheries and aquaculture management. The EAF and EAA are also proposed as best adaptation and mitigation frameworks to climate change. These approaches offer a framework that has the necessary width and depth for dealing with the many different facets of natural resource management. The gains and benefits from implementing EAF and EAA benefits could be very large, if successful.

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<sup>23</sup> Declaration and Strategy found in the document: "Aquaculture in the third Millennium". [www.fao.org/DOCREP/003/AB412E/AB412E00.HTM](http://www.fao.org/DOCREP/003/AB412E/AB412E00.HTM)

### **Box 2: The ecosystem concept**

An *ecosystem* represents an area and all plants, animals (including humans) and other organisms living there as well as the non-living components of their environment. Lately, there has been an increased appreciation of the interactions that take place within ecosystems and how their different components are interdependent. In 1992, the Convention on Biological Diversity (CBD) was signed, elaborating the core principles of multiple-use biodiversity management and leading to the adoption in 1995 of the *ecosystem approach (EA)* as the primary action framework under the Convention. This approach is a strategy for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way. It is based on the application of appropriate scientific methodologies focused on levels of biological organization which encompass the essential processes, functions and interactions among organisms and their environment. It recognizes that humans, with their cultural diversity, are an integral component of ecosystems.

Linked to the EA concept and the international agenda on sustainable development are a myriad of national and regional efforts and initiatives to apply a more holistic approach to fisheries management and to safeguard ecosystems. Parallel initiatives also exist within other sectors, such as forestry and tourism; all contributing to international efforts towards sustainable development approaches and practices. In the context of oceans, examples of cross-sectoral approaches include ecosystem-based fishery management (EBFM), implemented by, for example, the US Pacific Fisheries Management Council, the ecosystem approach to management (EAM) undertaken by the Commission for the Conservation of Living Marine Resources of the Antarctic Region (CCLMRAR), the fisheries ecosystem management framework contained in the Australian national strategy on ecologically sustainable development (ESD) and the large marine ecosystem (LME) management initiatives. There are similarities in the overarching principles and objectives of the various approaches to natural resource management, but there are also differences in the scope and emphasis.

EAF and EAA are aligned with the more general EA but are bounded by the ability to implement the approach within the context of fisheries and aquaculture management. The scoping and definition of meaningful spatial boundaries – taking a pragmatic approach as and when required by the characteristics of the aquatic environment – for management are key steps for implementation of EAF and EAA. EAF and EAA are also closely linked to other approaches in the field of development, natural resource and spatial area management, e.g. the Sustainable Livelihoods Approach (SLA) and integrated management (IM). These approaches are complementary to EAF and EAA, and indeed there is a substantial overlap in terms of their underlying principles, philosophy and methods.

However, a key point to remember is that EAF and EAA do not provide the "answers": they only assist in helping the government and stakeholders in trying to find these. The issues that need to be addressed and how to address them comes from the people involved in the management of the fishery.

The success of EAF and EAA depends on reaching a balance at two different levels. One level is finding the balance between conservation and sustainable use of fishery and aquatic resources within the limits of ecosystem functioning. Another is the integration of ecological, economic and social objectives into the management of specific geographical areas. EAF and EAA require commitment to overcome difficulties (both conceptual and practical) of making choices that require trade-offs and compromises among different sectors of society. This requires long-term political will (backed with sufficient resources) and also short-term economic and social support, particularly for the local stakeholders.

Equitable sharing of costs and benefits is a major challenge because conservation measures often impose livelihood costs on the local stakeholders and vice versa. In developing countries, this difficulty is compounded by the fact that at the public sector level there are multiple agencies from the

fisheries, environment and others, often working at cross-purposes. There is a need for an integration of these to move towards more equitable sharing.

In many cases, the required management action lies outside the scope of the fisheries agency and there is a need for better cooperation among agencies and stakeholders, especially during the planning stages of EAF and EAA. Once this important step has been achieved, day-to-day management of fisheries or aquaculture development can then be left to the fisheries agency and stakeholders to deliver, using participatory approaches tuned to the type of fishery or sociocultural context.

Implementing EAF and EAA usually implies a higher management cost to cover the broader data and information needs, the planning and consultative decision-making process, as well as a wider scope for monitoring, control and surveillance (MCS) of fishing activities. Although these costs should be outweighed by the longer-term benefits, the question of "who pays?" will often be important, especially in a transition phase of implementation. The idea that the beneficiary pays is becoming increasingly accepted. Because EAF and EAA also respond to wider societal needs, the costs theoretically should be divided between those people who are benefiting directly, such as fishers and fish farmers, and society at large.

## **FAO FISHERIES AND AQUACULTURE DEPARTMENT AND THE ECOSYSTEM APPROACH**

Most of the FAO Fisheries and Aquaculture Department work is dedicated to promoting and monitoring responsible fisheries and aquaculture development and management, consistent with the CCRF. It is recognized that an ecosystem approach is fundamental to the implementation of the CCRF, providing a way to achieve sustainable development in the fisheries and aquaculture context. In order to assist countries in moving towards an ecosystem approach to fisheries management and aquaculture development, the Department provides technical guidelines and assistance in planning and implementing EAF and EAA.

However, further development of implementation methodologies and practical experience from EAF and EAA are needed to overcome many of the challenges referred to above. With regard to EAF, work is ongoing to develop a toolbox that will help implementing the approach. A review of available indicators and guidance for their use is also in preparation, covering indicators of ecological and human well-being as well as those relevant to governance and external drivers.

The Department has long supported sustainable aquaculture management and practices. Effective governance of aquaculture is essential for its continued growth and the achievement of its potential. However, it has been felt that a holistic and integrated approach to aquaculture must be implemented. Hence, the Department is in the process of developing technical guidelines for EAA along the lines of EAF but focusing on those aspects and issues that are more pertinent to the aquaculture sector. The work is based on guidance provided in an experts workshop co-organized with the Universitat de les Illes Balears (Mallorca, Spain) in May 2007 on "Building and ecosystem approach to aquaculture".

Increasingly fisheries and aquaculture meet in the same ecosystems requiring an integrated management of both sectors, such is the case of aquaculture-based fisheries (stock enhancement programmes), and of capture-based aquaculture (breeding, ongrowing or fattening of wild caught fish/aquatic animals) and broader types of interactions such as the demand for capture fisheries production as aquaculture feeds. Together, EAF and EAA provide practical planning and implementation tools that in effect meet the recommendations of the CCRF in the pursuit of responsible fisheries and aquaculture management.

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### 3. REDUCED VULNERABILITY OF FISHING AND FISH FARMING COMMUNITIES TO NATURAL DISASTERS AND CLIMATE CHANGE

#### INTRODUCTION

Fishing and fish farming communities are vulnerable to disasters. This relates to a variety of factors including their location and the characteristics of the type of livelihood activities associated with fishing and fish farming, and also include high exposure to natural disasters.

The world is witnessing an increasing frequency and magnitude of natural disasters with events of hydrometeorological origin constituting the large majority (see Box 3). There is also high confidence that climate change will increase the frequency and intensity of weather-related natural disasters. Despite the growing understanding and acceptance of the importance of disaster risk reduction and increased disaster response capacities, disasters and in particular the management and reduction of risk continue to pose a global challenge.

This brief paper has been prepared as background information for the discussions on FAO's future work programme with regard to assistance in reducing the vulnerability levels of fishing and fish farming communities to natural disasters. It outlines the rationale behind the need for increased focus on preparedness and preventive actions, the policy framework and main concepts and issues with regard to disaster risk management.

A more complete elaboration of the issues addressed in this note can be found in the papers listed in the "Sources and suggestions for further reading" at the end of this document.

#### **Box 3: Trends and statistics on natural disasters**

A disaster is a serious disruption of the life of a community or society that causes extended losses and requires external assistance. Disaster risk is a function of a hazard, and the vulnerability and exposure of the community or society to the hazards. Natural disasters include disasters originating from hydro-meteorological hazards (floods, waves and surges, storms, droughts, etc), geological hazards (earthquakes, volcanic eruptions, etc.) and biological hazards (epidemics, insect infestations, etc.).

According to the disaster database that the Centre for Research on the Epidemiology of Disasters (CRED) maintains together with the United States Agency for International Development Office of Foreign Disaster Assistance (USAID/OFDA), the number of natural disasters has increased from around 75 to more than 400 per year since 1975. This rise is caused almost entirely by an increase in weather-related disasters: over the last three years hydro-meteorological disaster increased by more than 100 percent from about 100 in 2004 to more than 200 in 2006, coupled with increased vulnerability of poor people. Natural disasters have also increase in variability, with a sharp rise in small and medium scale disasters. Climate change is most likely to blame for this new trend, which according to recent research is expected to continue and subsequently increase risk, making the need for effective DRR even greater.

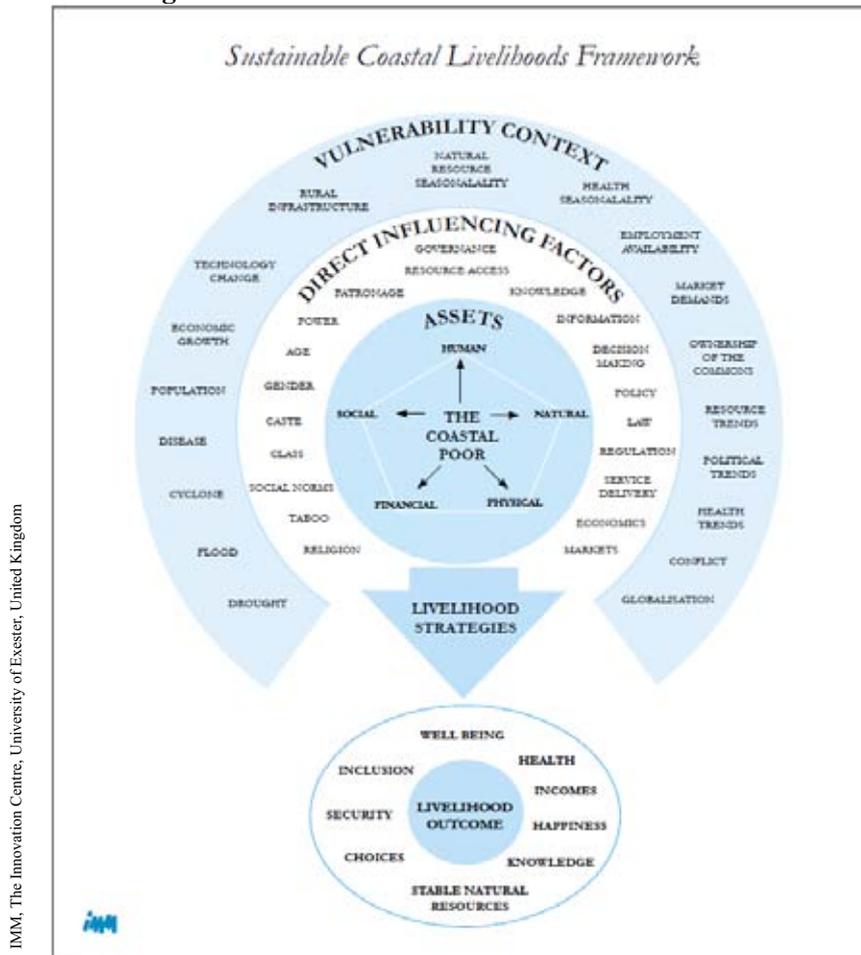
*Source: International Disasters Database (EM-DAT) available at [www.emdat.be/index.html](http://www.emdat.be/index.html), and fourth assessment of IPCC.*

## THE VULNERABILITY CONTEXT OF FISHING AND FISH FARMING COMMUNITIES

Vulnerability is an important dimension of poverty. The level of vulnerability is decided by the sensitivity of a household or a community to a certain hazard risk and their adaptive capacity to deal with the risk. A wide range of vulnerability factors exist (Figure 1). Fishers and fish farmers in coastal and inland areas are particularly vulnerable to the direct and indirect impacts of climate change and extreme weather events because of their geographic exposure and reliance on water supplies and resources. Changes in rainfall and weather patterns triggered by global warming may also affect the spread patterns of aquatic pathogens, thus causing disease outbreaks and epizootics in new environments and affecting fish farming activities. Other sources of vulnerability include high occupational risk (from accidents at sea), high exposure to changes in macro-economic factors (e.g. fuel and other input prices, fish prices and market access), increasingly high exposure to conflicts with other users (due to increased competition for resources) and more recently to HIV/AIDS.<sup>24</sup>

Some 90 percent of all fishers and a large share of the world's fish farmers and fish workers are small-scale operators living in developing countries and many coastal communities are particularly vulnerable to hazards due to poverty and food insecurity. There is a clear link between disaster risk and poverty; of the 262 million people affected annually by climate disasters between 2000 and 2004, more than 98 percent lived in developing countries.<sup>25</sup>

**Figure 1: Sustainable coastal livelihoods framework**



Source: IMM, from Pomeroy *et al.* (2009), Rehabilitating livelihoods in tsunami-affected coastal communities in Asia. CONSRN Policy Brief No. 2, WorldFish Center. 13 pp.

<sup>24</sup> See also the background paper on *Increased contribution of small-scale fisheries and aquaculture to poverty alleviation and food security*.

<sup>25</sup> In OECD countries, one person in 1 500 was affected by a climate-related disaster while the figure for developing countries was one in 19. UNDP, *Human Development Report 2007/2008*.

## NATURAL DISASTERS IN FISHERIES AND AQUACULTURE

Natural disasters affect the fisheries and aquaculture sector in many different ways. They often lead to large numbers of casualties and cause tangible losses in the form of damaged and lost boats, gear, fish cages and aquaculture brood stock and other productive assets, destruction of infrastructure such as landing facilities, and the loss of production, e.g. fish escaping from aquaculture ponds. As opposed to sudden natural disasters, other hazards build up over time. Disease outbreaks and other threats to in particular farmed fish cause loss of production.

Although data specific to fisheries are not available in the international statistics – the numbers quoted in Box 3 above are global cross-sectoral values – it is evident that the fisheries sector is particularly prone to disasters of *hydro meteorological* nature such as storms and floods because most fishing and fish farming takes place in coastal areas; places with relatively high exposure to hydrometeorological hazards. Cyclones, hurricanes and typhoons are amongst the most destructive natural phenomena and they are often combined with floods and tidal waves. However, fortunately, marine organisms and their habitats tend not to be seriously affected directly by storms.

One example of a *geological* disaster severely affecting coastal communities on several continents is the tsunami of 26 December 2004. Fishing and coastal communities, as well as other livelihood groups, were severely impacted notably in India, Indonesia, Malaysia, Maldives, Myanmar, Seychelles, Somalia, Sri Lanka, Thailand and Yemen. It is estimated that over 200 000 lost their lives although the exact number will never be known. Millions of people were affected economically, losing their livelihood assets and income sources. The tsunami was triggered by another geological hazard: the earthquake in the Indian Ocean. Some areas already affected by the first earthquake and the tsunami suffered from additional quakes later (e.g Nias Island, Indonesia).

*Biological* hazards affecting the fisheries sector include disease outbreaks, in particular in fish and shellfish farms, and phytoplankton and jellyfish occurrences. These can cause important economic losses and impact on the livelihoods of fish farmers in a significant way. ADB/NACA<sup>26</sup> (1991) estimated the value of lost farm production to fish diseases in 15 developing Asian countries to be USD 1.36 billion in 1990. This included diseases such as epizootic ulcerative syndrome (EUS), penaeid shrimp diseases and a variety of other diseases causing losses in freshwater finfish pond culture and marine cage culture of finfish. Aquaculture – in particular marine cage culture – can also be affected by jellyfish and phytoplankton. If the phytoplankton produces toxins, Harmful Algal Blooms (HABS) can become the result. Some of the toxins produced are harmful to consumers of shellfish. Also non-harmful toxins can kill fish due to the low oxygen conditions the bloom creates.

## DISASTER RISK MANAGEMENT AND THE RELIEF-DEVELOPMENT CONTINUUM

Disaster response and management of disaster risk can be described as a sequence of events or phases, each requiring different and specific actions. This disaster cycle – or emergency sequence – consists of a continuum of activities before and immediately after the disaster, and in transition to longer-term development. These three main phases include the following types of actions:

### Reducing vulnerabilities:

- *Risk assessment* to understand the potential hazards, existing vulnerabilities and possible threats
- *Prevention and mitigation* of events and processes that could result in disasters
- *Preparedness* to respond rapidly and effectively if disasters occur
- *Early warning* to provide information before potentially disastrous events and as soon as possible immediately after

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<sup>26</sup> Asian Development Bank (ADB) and Network of Aquaculture Centers in Asia and Pacific (NACA).

Emergency response:

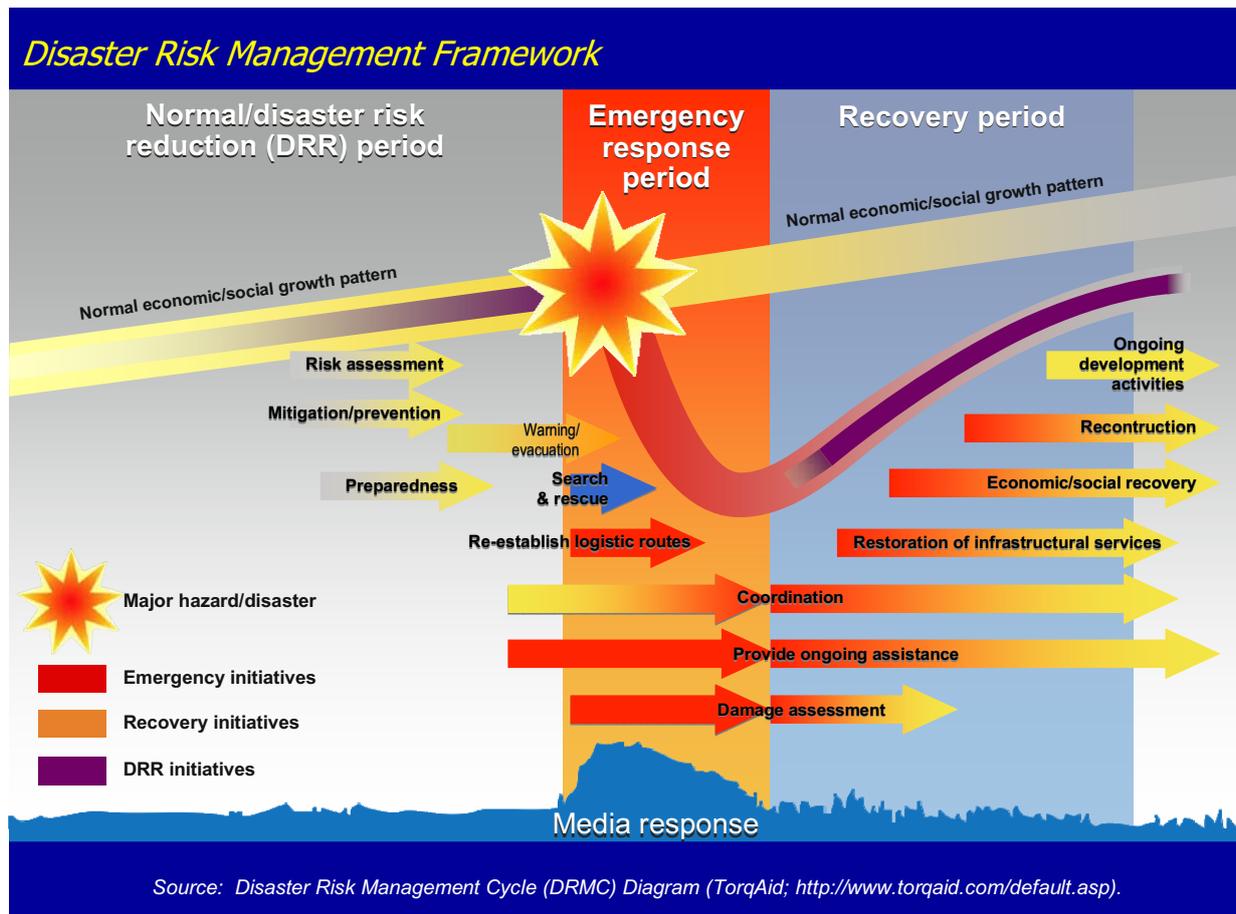
- *Search and rescue* and other immediate response to a disaster
- *Impact and immediate needs assessment* following a disaster
- *Relief*, or *emergency response* to address humanitarian needs and to protect livelihoods following a disaster

Transition planning:

- *Rehabilitation* to initialise the restoration and rebuilding of livelihoods
- *Reconstruction* for replacing destroyed infrastructure
- *Sustainable recovery* for longer term re-establishment and enhancement of livelihoods and livelihood support structures

While these actions may seem distinct, they are not necessarily so in time and there is often a need to carry out actions related to different phases of the disaster cycle simultaneously. For example, longer-term development objectives need to be considered throughout the emergency sequence, including in the immediate relief phase, and the rehabilitation, reconstruction and recovery should include actions to reduce vulnerabilities to potential future threats. The concept of *relief-development continuum* should be used (see Figure 2).

**Figure 2: The disaster sequence**



Disaster risk reduction (DRR) is a core concept of prevention, preparedness and early warning, and includes the systematic development and application of policies, strategies and practices to avoid or limit the adverse effects of hazards. DRR builds on the need for a sound understanding of vulnerabilities and on the promotion of resilience, in particular of the poor and food insecure. Risk

reduction can focus primarily on the physical environment or be aimed at human processes, primarily socio-economic. However, in most cases the two approaches are interdependent. The integration of DRR into sustainable development and sectoral policies and planning is recognized as a priority by the international community.

### **INTERNATIONAL COLLABORATION ON DRR: INTERNATIONAL STRATEGY FOR DISASTER REDUCTION (ISDR) AND THE HYOGO FRAMEWORK**

The International Strategy for Disaster Reduction (ISDR) is a UN initiative and a partnership system that "aims at building disaster resilient communities by promoting increased awareness of the importance of disaster reduction as an integral component of sustainable development, with the goal of reducing human, social, economic and environmental losses due to natural hazards and related technological and environmental disasters".<sup>27</sup> Recognizing the increasing seriousness of the challenges posed by disasters and the need to review the existing guiding framework in order to ensure the implementation of the relevant provisions of the Johannesburg Plan of Implementation of the World Summit on Sustainable Development, a World Conference on Disaster Reduction was convened by the UN General Assembly in Hyogo, Japan, in 2005. The Conference, which was attended by 168 States, agreed on a strategic and systematic approach to reducing vulnerabilities and risks to hazards. The need for building resilience of nations and communities was stressed and the Conference adopted five priorities for action, i.e.:

1. Ensure that disaster risk reduction is a national and a local priority with a strong institutional basis for implementation.
2. Identify, assess and monitor disaster risks and enhance early warning.
3. Use knowledge, innovation and education to build a culture of safety and resilience at all levels.
4. Reduce the underlying risk factors.
5. Strengthen disaster preparedness for effective response at all levels.

This *Hyogo Framework* was endorsed by the UN General Assembly in resolution 60/195. The Framework's 10-year plan reflects the intention to take a holistic approach in identifying and putting into action complex multidisciplinary disaster risk reduction measures. It calls on the ISDR system to facilitate the coordination of effective and integrated action among the organizations of the UN System and among other relevant international and regional entities, in accordance with their respective mandates, to support the implementation of the Hyogo Framework.

### **HOW CAN VULNERABILITY TO NATURAL DISASTERS BE REDUCED?**

Because of its complexity and close link to poverty, vulnerability to natural disasters and climate change needs to be addressed at several different levels ranging from specific risk assessments and the establishment of early warnings systems to the integration of DRR strategies into broader fisheries and aquaculture management frameworks as well as into development policy and planning, and vice versa, i.e. integrating fisheries and aquaculture into broader DRR frameworks.

Implementation of DRR measures needs to be based on an assessment and prioritization of the hazards and risks that people face, as well as their ability to cope and withstand the effects of those hazards. This assessment should be carried out in an integrated way: (i) identification of the typology, frequency and potential severity of an hazards (hazard assessment); (ii) identification of geographical areas that are most vulnerable to those hazards (hazard mapping); (iii) identification of key factors of vulnerability and local coping and adaptive strategies and capacities; (iv) assessment of gaps in national policies, legislation and institutional capacity for DRR; and (v) assessment of the roles of agriculture, livestock, fishery and forestry line departments in disaster risk management and linkages with other relevant institutions.

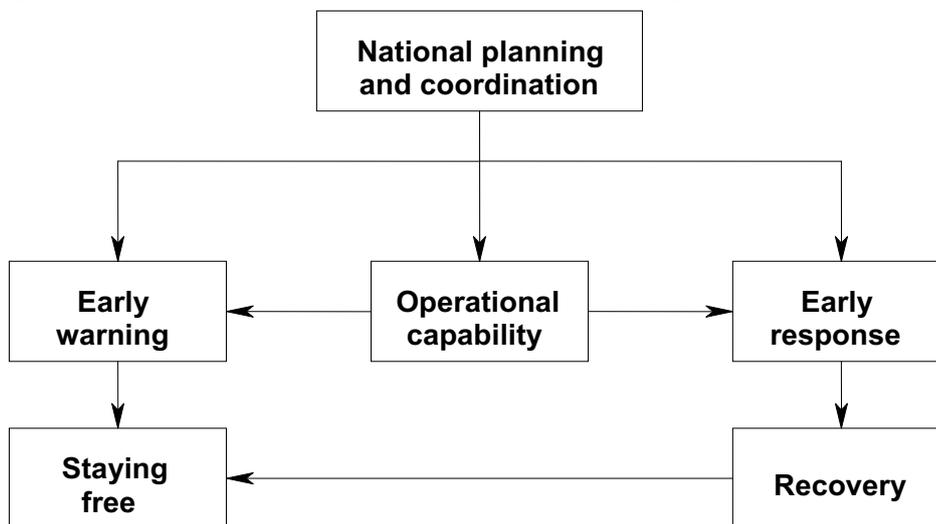
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<sup>27</sup> ISDR Mission statement (see [www.unisdr.org/](http://www.unisdr.org/)).

Many of the impacts of natural disasters can be avoided or minimized if proper mitigation measures are implemented. The establishment of early warning systems for alerting communities with regard to oncoming cyclones, tsunamis or other natural hazards are important actions for saving lives and limiting fatalities and damage in coastal areas. Ensuring that there are appropriate shelters and evacuation plans are other central aspects. There is also a need to ensure to support communication and to ensure that information from early warning systems reach the concerned communities. In many developing countries shelters and warning systems exist but they are not always sufficient and adequate. Migrating fishers and their households are in particular danger as they often live in substandard temporary dwellings, stay in remote areas where warnings may not reach them and only have limited access to existing shelters.

In aquaculture, improved animal health and welfare are important for reducing the risk of catastrophic and chronic losses in production. The ability of a country to prevent, detect and control aquatic animal diseases is critical to assure sustainable aquaculture production. It is important to strengthen diagnostic and control capabilities, improve the capacity of rural fish farmers to deal with disease outbreaks, improve disease surveillance and reporting, and develop and implement national strategies on aquatic animal health management and appropriate aquatic biosecurity frameworks. The basic components of an animal disease emergency response plan are illustrated in **Figure 3** below.

**Figure 3: Basic components of an animal disease emergency response plan**



Source: from Baldock, 2005<sup>28</sup>

These six components are strongly interlinked and in presenting a strong case for support for emergency preparedness. Responsible authorities need to emphasize the risks posed by aquatic animal diseases, the potential socio-economic consequences of ineffective response and the benefits that can result from rapid containment and eradication. There are risk transfer strategies such as insurance schemes – becoming more common in aquaculture – that can help minimize the impacts of disasters on individuals and communities.

<sup>28</sup> Baldock, C. 2005. National contingency plans for aquatic animal disease emergencies: the way forward for developing countries. pp. 157–165. In R.P. Subasinghe & J.R. Arthur (eds). Regional Workshop on Preparedness and Response to Aquatic Animal Health Emergencies in Asia. Jakarta, Indonesia, 21–23 September 2004. *FAO Fisheries Proceedings*. No. 4. Rome, FAO.

Species introduction also involves a number of risks (e.g. pathogen, genetic, ecological, environmental, etc.) which can be minimized through, for example appropriate risk analyses and environmental impact assessments, undertaken before any such movement occurs.

It is important that the people at risk (those most vulnerable, i.e. fishing and fish farming communities, people in poverty) and their needs be the focus of the "first mile" of protection. Addressing poverty and vulnerabilities within fishing and fish farming communities constitutes a major challenge. Although the understanding of the concept of poverty has evolved considerably during the last couple of decades, there is still a lack of information on exactly what causes poverty in fishing and fish farming communities and its characteristics. There are nevertheless some important lessons learnt:

- There needs to be policy coherence and explicit and adequate consideration of fisheries and aquaculture activities in national poverty reduction plans as well as disaster preparedness strategies. At the same, vulnerabilities and exposure to national disasters need to be integrated into fisheries and aquaculture management and development frameworks.
- Reducing vulnerabilities in fishing and fish farming communities requires a holistic and cross-sectoral approach; the livelihoods of the people concerned have to be seen and understood in their full complexity and analysed and supported taking the generally wide range of livelihood activities into account.

Reducing vulnerability to natural disasters require major response by governments and relevant stakeholders in the value chain. Responsible authorities will be faced with various levels of challenges (operational, technical, resource management, public relations, communication, information management and endurance challenge). Therefore, a well-defined preparedness and emergency response backed up by essential expertise, logistical support, field resources with appropriate national and regional mandates as well as pre-allocated funding support will be necessary to ensure effective and rapid response when emergency situations arise. Important elements of an effective preparedness include speed of response, decision-making and action, a good system of management of information and communication and supported by good science. Risk communication will play an essential role. Civil society dialogues and partnerships should be widely and actively promoted to enhance risk prevention and to develop a culture of safety. Awareness raising and capacity building develop methods to assess them as well as studies to understand the connections between them and the different risk events and patterns; and to identify integrated approaches to risk management will be necessary and should be considered a matter of priority especially for developing countries.

## **DISASTERS AND THE FAO FISHERIES AND AQUACULTURE DEPARTMENT**

FAO is involved in all the three main phases of the relief-development continuum referred to above. Since its inception, FAO has had a long history of providing support during disasters and emergencies, this work now makes up a significant proportion of its day to day activities.

Following a review of the global system for humanitarian response to disasters by the UN Emergency Relief Coordinator in 2005, a thematic "cluster approach" was adopted in order to better coordinate emergency response and to capitalize on partners' comparative strengths. FAO is the cluster leader for the agriculture sector (including fisheries and aquaculture, and forestry) and has as such an important responsibility to facilitate and encourage greater coordination and coherence between the multiplicity of international and national agencies operating in emergency contexts.

The cluster approach operates at two levels. At the global level, the aim is to strengthen system-wide preparedness and technical capacity to respond to humanitarian emergencies by designating global cluster leaders and ensuring that there is predictable leadership and accountability in all the main sectors or areas of activity. At the country level, the aim is to ensure a more coherent and effective response by mobilizing groups of agencies, organizations and NGOs to respond in a strategic manner across all key sectors or areas of activity.

FAO is an active member of ISDR, helping member countries to develop risk reduction policies and practices in agriculture, forestry and fisheries. FAO promotes:

- sector policy framework and institutional set-up for risk management;
- sustainable natural resource-management practices;
- use of agricultural, forestry and fishery mitigation measures as well as structural mitigation measures.

The FAO Fisheries and Aquaculture Department addresses vulnerabilities as part of its support to in particular small-scale fishers, fish farmers and fish workers within the context of its overall work on sustainable fisheries and aquaculture for the benefit of human well-being, food security and poverty alleviation. The importance of vulnerability in the overall concept of poverty is recognized and activities explicitly directed to reducing the overall level of vulnerability in coastal communities have been carried, e.g. the Sustainable Fisheries Livelihoods Programme (SFLP) in West and Central Africa. Examples of past and current activities with a more direct focus on reducing vulnerabilities and preparedness in the context of disasters include:

- Preparation and dissemination of risk analysis manuals and case studies, environmental impact assessment guidelines and case studies, and sectoral policy papers on disaster preparedness.
- Provision of information, guidelines and educational materials on aquaculture risk preparedness issues (e.g. farm-level biosecurity, best management practices (BMPs) and insurance schemes) and safety at sea.
- Provision of support to build capacity of governments, local institutions, communities and other stakeholders to address immediate and long term needs in the fisheries and aquaculture sector.

The Department increasingly promotes activities that integrate emergency response and long-term recovery and development. It strives at including transition planning early on in the response process with a view to "build back better", i.e. to avoid that rehabilitation and reconstruction leads to repeating – or even reinforcing – unsustainable fishing and aquaculture practices or contributing to "poverty traps". By providing coordination, technical advice and inputs for longer-term planning in line with the principles of the *FAO Code of Conduct for Responsible Fisheries*, sustainability can be enhanced and vulnerability levels reduced.

Based on its mandate with regard to nutrition, agricultural production and poverty alleviation, FAO actively supports the work of the United Nations Framework Convention on Climate Change (UNFCCC). Agricultural and food production in many developing countries are likely to be adversely affected by climate change, especially countries that have low incomes and a high incidence of hunger and poverty and are already highly vulnerable to drought, flooding, cyclones and other natural disasters. Adaptation to climate change is vital to reduce its impacts and increase the resilience of affected populations and natural systems. FAO's climate-related work covers both short-term fluctuations (climate variability) and longer-term aspects (climate change). FAO's role in relation to climate change has gradually advanced from that of advising countries on possible climate change impacts, to actively support climate change mitigation and adaptation. DRR in the context of current weather extremes emerged as suitable entry point to actively address climate change with farmers and rural communities.

Recognizing that disaster preparedness, emergency response and adaptation are key instruments to increasing resilience and reducing fishing and fish farming communities' vulnerabilities to disasters, aquatic emergencies and climate change and in line with FAO commitments in the context of the Hyogo Framework and climate change, the Fisheries and Aquaculture Department aims at addressing DRR issues more extensively. Accordingly, the Department plan to increase its efforts to improve the vulnerability of fishing and fish farming communities to disaster risks relating to natural disasters, including species introductions, fish disease epizootics, and climate change.

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Humanitarian Reform Web site ([www.Humanitarianreform.org](http://www.Humanitarianreform.org))

## APPENDIX F

**Proposed logframe for Theme 1 – Increased contribution of small-scale fisheries and small-scale aquaculture to poverty reduction and food security**

Development objective	Immediate objective	Outputs	Activities
Increased contribution of SSF and SSA to poverty reduction and food security	A. Increased awareness and understanding of SSF and SSA for poverty reduction and food security (in both senses: within SSF/SSA sectors and beyond them)	<ol style="list-style-type: none"> <li>1. Improved global/regional/national/local data and information on SSA/SSF</li> <li>2. Awareness-raising, strategies and approaches for various target groups</li> <li>3. Systems for monitoring progress established (at all levels)</li> <li>4. Mechanisms for sharing and exchange of experience in collection/dissemination established</li> </ol>	<ol style="list-style-type: none"> <li>1. Identify and define global/regional/national/local information need</li> <li>2. Develop and adopt appropriate methodologies and participatory approaches for data collection</li> </ol>
	B. Adoption of policies (not only in the fisheries and aquaculture sectors) that enhance the contribution SSF and SSA to poverty alleviation and food security.	<ol style="list-style-type: none"> <li>1. SSA/SSF are integrated in poverty reduction national strategies (PRSPs include and have integrated SSA/SSF)</li> <li>2. Integrating SSA/SSF into the decentralization process (Decentralization process have SSA/SSF integrated)</li> <li>3. SSA/SSF are included in national food security strategies</li> <li>4. Policy that promote the subsidiarity principle into relevant policies</li> <li>5. Policy to support the local empowerment and capacity of SSA/SSF</li> <li>6. Policies that promote the human rights based approach at local or national level</li> <li>7. Reallocation policies to support SSA/SSF and provide secure access rights</li> <li>8. Pro-poor fisheries management policies applied to SSF and other fishery components</li> </ol>	<p style="text-align: center;">Partnerships and networks</p> <ol style="list-style-type: none"> <li>1. Building policy development capacity at all levels</li> </ol>

Development objective	Immediate objective	Outputs	Activities
		<ol style="list-style-type: none"> <li>9. Creating simplified versions of the policies to reach the people on the ground (communication/dissemination of the policies at all levels)</li> <li>10. International guidelines on SSF adopted</li> <li>11. Policy analysis toolkit for sectors outside fisheries and aquaculture</li> <li>12. SSA/SSF integrated into cross-sectoral policy processes (or in the policies of other sectors that are relevant) (SSA/SSF recognized as stakeholders in other sectors)</li> </ol>	
	<p>C. SSF, SSA, other stakeholders and their organizations are enabled and empowered to adopt practices and approaches that contribute to poverty alleviation and food security</p>	<ol style="list-style-type: none"> <li>1. Practices/guidelines developed and disseminated through networks/partnerships</li> <li>2. SSA/SSF organizations established, recognized, functional and networked</li> <li>3. National strategies and plans supporting SSA/SSF are developed and implemented (including cross-sectoral ones)</li> <li>4. Effective cross-sectoral integration mechanisms, approaches and practices</li> </ol>	<p style="text-align: center;">Partnerships and networks</p> <ol style="list-style-type: none"> <li>1. – SSA/SSF organization guidelines developed</li> <li>– guidelines prepared</li> <li>– networks established/facilitated</li> <li>– capacity building institutional support</li> <li>– sharing of best practices through networks</li> <li>2. – fishing/farmers groups are organized and empowered with "inner"</li> <li>– dissemination of practices that contribute to poverty alleviation and food security.</li> <li>– develop and test capacity building programmes for SSA/SSF organizations and their functionality</li> <li>– training "inner" practices</li> <li>– dissemination (self-service)</li> <li>– cross-learning among fishers/farmers including demo visits</li> </ol>

Development objective	Immediate objective	Outputs	Activities
	<p>D. Improve market access. Creation, development and expansion of markets. Institutions, arrangements and market structures to support the contribution of SSF and SSA to poverty alleviation and food security. Both at the domestic and international level.</p>	<ol style="list-style-type: none"> <li>1. Market information (research, assessment etc., at both domestic and international level) for SSA/SSF</li> <li>2. Post-harvest intervention for SSA/SSF</li> <li>3. Market knowledge dissemination for SSA/SSF</li> <li>4. Organization of SSF and SSA</li> <li>5. Physical infrastructure – location of sites for SSA/SSF</li> <li>6. Technical know-how and expertise for SSA/SSF</li> <li>7. Linking SSA/SSF to buyers/Buyer-seller matching</li> <li>8. Promotion of products from SSA/SSF.</li> <li>9. Market monitoring and feedback</li> <li>10. Lobbying for marketing of products from SSA/SSF</li> </ol>	<p style="text-align: center;">Partnerships and networks</p> <ol style="list-style-type: none"> <li>3. – radio</li> <li>– sms</li> <li>– direct communication</li> <li>4. – consumer awareness – nutrition</li> <li>– advertisement</li> <li>– trade show</li> </ol>

Suggestion: Quality information for effective decision-making at all levels available in a timely manner.

**The Inception Workshop of the FAO Extrabudgetary Programme on Fisheries and Aquaculture for Poverty Alleviation and Food Security (Rome, 27–30 October 2009) was held to generate inputs and guidance to the contents and process of developing an assistance programme for fisheries and aquaculture. The programme’s overall goal is to ensure that responsible and sustainable use of fisheries and aquaculture resources make an appreciable contribution to human well-being, food security and poverty alleviation. The workshop stressed the need to include fisheries and aquaculture, especially the small-scale subsectors, into poverty alleviation, food security and disaster risk reduction policies and programmes. These should be informed by a human rights approach to development. The challenges to advance the poverty alleviation and food security agendas are considerable. Concerted efforts and partnerships at different levels and scales are needed and interventions should be firmly anchored in the regional, national and local context. It is vital to build up national and local ownership in accordance with the Paris Declaration and this should be a key requirement for the inception phase and beyond.**

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