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COMMITTEE ON FISHERIES

SUB-COMMITTEE ON AQUACULTURE

Third Session

New Delhi, India, 4-8 September 2006

TOWARDS IMPROVING INFORMATION ON STATUS AND TRENDS OF AQUACULTURE

SUMMARY

Following the request of the Second Session of the Sub-Committee on Aquaculture, FAO convened an Expert Consultation on Improving Information on Status and Trends of Aquaculture in Rome in January 2004. The consultation addressed issues including:

- current status and main issues in national data collections for aquaculture;
- current FAO procedures for monitoring and reporting status of aquaculture production;
- prioritization of global issues in aquaculture data reporting; and
- information needs and data availability

An important output of the Expert Consultation was the elaboration of a Draft Strategy and Outline Plan for Improving Information on Status and Trends of Aquaculture. This is envisioned as a process complementary to that undertaken for improving status and trends reporting for capture fisheries and resulting in the adoption of the Strategy – STF¹ and launching of the FishCode-STF project² to promote implementation of the Strategy – STF. The members are requested to provide comment and advice on this Draft Strategy and, if acceptable, to recommend that it be presented for approval by the 27th Session of COFI in 2007. It is anticipated that extra-budgetary funding will be required to assist developing countries implement the Strategy and potential donors and partners are requested to express their interest.

¹ Strategy for Improving Information on Status and Trends of Capture Fisheries (Strategy-STF). Rome. FAO. 2003. 34p.

² FishCode (Programme of Global Partnerships for Responsible Fisheries) – Strategy for Improving Information on Status and Trends of Capture Fisheries (Strategy-STF).

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INTRODUCTION

1. The importance of improving the available information on aquaculture has been affirmed by both the first and second sessions of the COFI Sub-Committee on Aquaculture³. While progress is being made, there remains much work to be done. In particular, the Second Session of the Sub-Committee endorsed the planned Expert Consultation on Improving Information on Status and Trends of Aquaculture. Sixteen international experts in aquaculture, in addition to the FAO secretariat, participated in the consultation which was held in Rome in January 2004. An important output of this Expert Consultation was the formulation and agreement on a Draft Strategy and Outline Plan for Improving Information on Status and Trends of Aquaculture. These activities are seen as the start of a process parallel to that undertaken for capture fisheries and which has resulted in the adoption of the Strategy-STF and implementation of the FishCode-STF Project for improving global status and trends reporting for capture fisheries.

EXPERT CONSULTATION

2. The Expert Consultation on Improving Information on Status and Trends of Aquaculture reviewed the current state of the available information for global aquaculture and the mechanisms used by FAO to request this information. Strengths and improvements in the system were discussed including the expanding use of electronic questionnaires for reporting data on aquaculture to FAO. Additionally, weaknesses in the current data systems were discussed including:

- non-reporting, or under-reporting of certain sectors of the industry (e.g. small-scale),
- lack of reporting of production to the species level,
- lack of reporting of new species, and
- problems with definitions and standardization of terms and concepts.

3. To address the final point, the Consultation recommended the formation of an inter-agency body, similar to the Coordinating Working Party on Fishery Statistics, whose mandate would be to set standards and make recommendations on issues related to global aquaculture statistics and information.

4. It was noted that the lack of species-level data and the failure to report production of new species can create a misleading picture of the situation concerning certain species at the global scale. For example, it was widely acknowledged that much of the aquaculture production of shrimp in Asia-Pacific had shifted from *Penaeus monodon* to *P. vannamei* in recent years. However, the data were slow to reflect this transition because much production was reported in the more general category of “*Penaeus* shrimps” or under the previous species.

5. After a review of the available information and the information needs for aquaculture, the Expert Consultation identified six key themes that status and trends reporting should address in order to support the continued sustainable development of aquaculture. These are;

- aquaculture production quantities, species and values;
- aquaculture resource use and environmental management;
- contributions of aquaculture to poverty alleviation and improving livelihoods;
- contributions of aquaculture to food security and food demand;
- contribution of aquaculture to national economies and trade; and
- development of institutions to support responsible development of aquaculture.

6. The group further identified measurable indicators for each theme and made suggestions on how the information would be collected. All six themes were recognized as important for

³ FAO Fisheries Report No.674. Committee on Fisheries. *Report of the First Session of the Sub-Committee on Aquaculture*. Beijing, People's Republic of China, 18-22 April 2002. and FAO Fisheries Report 716. Committee on Fisheries. *Report of the Second Session of the Sub-Committee on Aquaculture*. Trondheim, Norway, 7-11 August 2003.

decision-making, but at the same time it was realized that there would be difficulties collecting information for some themes, and that this may influence data and information collection priorities, especially in the context of limited resources. The Consultation recognized that the FAO Questionnaires to member nations were not the only available, nor necessarily the most appropriate, mechanism for collecting the needed information. Other sources of information must be utilized including national reports, special studies, industry reports and local knowledge.

MAIN COMPONENTS OF THE DRAFT STRATEGY

7. The full text of the Draft Strategy (hereafter, “Strategy”), as developed by the Expert Consultation on Improving Information on Status and Trends of Aquaculture, is available (in English) in the FAO Fisheries Technical Paper 480 “Towards improving global information on aquaculture” (COFI/AQ/III/2006/Inf. 6). Key features and provisions of the Strategy are summarized in this document.

Nature, scope and objective

8. The Strategy has been elaborated within the framework of the Code of Conduct for Responsible Fisheries, and taking into account the process undertaken resulting in the Strategy for Improving Information on Status and Trends of Capture Fisheries, which was formally accepted by the FAO Committee on Fisheries in February 2003⁴.

9. The Strategy applies to the assembly and dissemination of information on the status and trends of aquaculture. Data collection needs for aquaculture are primarily for national policy-making, planning and management of the aquaculture sector and at the global level are established by existing obligations of states to report fisheries statistics to FAO under Article XI of the FAO Constitution. The Strategy proposes to significantly improve data collections and related research for the benefit of users at the national, regional and global levels. This should include additional support from relevant international organizations and financial institutions for capacity building in developing countries.

10. The Strategy is global in scope and is designed to cover all aquaculture in fresh, brackish and marine waters including all commercial and small-scale aquaculture. It addresses:

- national capacity for the collection, processing, analysis and dissemination of information;
- quality, completeness and scope of data and information;
- timeliness of information collection and dissemination;
- national and international institutional frameworks for coordination of data and information collection; and
- participation and transparency in the preparation of global status and trends reports.

11. The overall objective of the Strategy is to provide a framework for the improvement of knowledge and understanding of aquaculture status and trends as a basis for policy-making and management, and to ensure development that is compatible with good stewardship of resources and the environment.

12. The Strategy will be implemented through arrangements between states, directly or through their participation in regional fisheries organizations, and FAO. These arrangements should be established at various geographic scales, ranging from local to national to regional, and they should be linked to form a global system under the auspices of FAO. Consistent with Article 5 of the CCRF, the capacity of developing countries will be taken into account in implementing the Strategy.

⁴ FAO. Strategy for Improving Information on Status and Trends of Capture Fisheries. Rome, 2003. 34p.

Required actions

13. The Strategy categorizes actions to be undertaken into the following three broad categories:

- *Capacity building in developing countries* - critical to fulfil national needs and existing reporting obligations, and to ensure that developing countries can fully participate in, and benefit from, the Strategy.
- *Global methodologies and standards* - gaps and constraints in the data collected should be addressed, in addition to evaluating what data should be collected in the context of national needs and priorities, data collection cost and national capacity. FAO, with its partners, should develop standard methodologies and software for the compilation, processing and analysis of aquaculture statistics, and should promote its adoption and application by member countries.
- *Improving institutional mechanisms and procedures for statistics and status and trends reporting* – FAO should consider establishing an inter-regional Coordinating Working Party on Aquaculture Statistics to review requirements for aquaculture statistics, agree on standard concepts and definitions, and make proposals for the coordination of aquaculture statistical activities among relevant organizations. States should agree on arrangements to facilitate the provision and exchange of information on aquaculture with FAO, and should monitor these systems to ensure their sustainability for meeting the needs of aquaculture policy-making and management.

14. The various interested institutions and organizations all have important roles to play in the implementation of the Strategy. Member states should evaluate the actions they need to take to improve information on aquaculture, address these needs on a priority basis, and report on the improvements as part of their biennial report to FAO on the CCRF. States should assign priority and allocate adequate resources to ensure sustainable and timely data collection, processing and dissemination of information needed to enable rational management of national resources and responsible aquaculture development. A high quality global information system is only possible when based on information from high quality national systems.

15. Some regional fishery organizations and other agencies with a mandate for aquaculture statistics and information have an important role to play in the Strategy, by providing support to their members and by participating in global and regional programmes and in making decisions on the development of norms (e.g. definitions), standards, classifications and guidelines for improving information for aquaculture. International and national development partner agencies should, likewise, give priority to the provision of financial and technical assistance to developing countries, and countries whose data collection systems are in the most critical condition to enable the information system development necessary to implement the Strategy. Similarly non-governmental organizations concerned with aquaculture should encourage implementation of the Strategy through their support.

16. FAO will, to the extent directed by its Conference, support implementation of this Strategy through appropriate mechanisms including technical assistance programmes using Regular Programme funds and extra-budgetary funds made available to FAO for this purpose. FAO should prepare a specific programme for implementation of the Strategy and especially for establishing effective and sustainable systems for data collection, processing and analysis in developing countries, including in particular, the least developed among them. A draft project outline for this purpose is described in the next section. Additionally, FAO will report biennially, through COFI and the Sub-Committee on Aquaculture, on the state of progress in the implementation of the Strategy.

DRAFT PROJECT OUTLINE

17. The Draft Project addresses the improvement of the collection, processing and use of data and information on the status and trends of aquaculture. It would be part of the FishCode

Programme “Assistance to Developing Countries for the Implementation of the Code of Conduct for Responsible Fisheries”, similar in nature to the FishCode-STF (Status and Trends for Capture Fisheries) project. The Project activities will be conducted through the implementation of two mutually supporting components:

- *Component 1: Development of inventories methodologies and operational guidelines.* This component will identify and inventory systems currently in use for all aspects of monitoring aquaculture development, and will assess the quality of these systems. These activities will be normative and global in nature and should result in publications, training materials and software.
- *Component 2: Field training and implementation.* This component will aim to provide substantial improvement in collection and processing of aquaculture information for selected developing countries. The main purpose is to obtain better data for policy-making and management at the national, or regional, level. Improvements in reporting to FAO would be an important secondary benefit.

18. FAO will work primarily with member countries through the appropriate departments and institutes responsible for aquaculture. Close coordination with other elements of the FishCode Programme and other FAO aquaculture projects is expected. Beneficiary states will be expected to provide commitments for the provision of personnel and for logistical support.

OTHER RELATED ACTIVITIES

19. In the intersessional period, the FAO has made progress in the implementation of recommendations related to improving status and trends reporting on aquaculture. Work has commenced to compile, analyze, and disseminate data elements other than production volume and value. These elements include production by methods of culture, structural data for aquaculture and information on hatchery production. It is anticipated that a report on these data, along with recommendations regarding the collection of these data elements, will be available in 2007.

20. At the conclusion of the Expert Consultation on Improving Information on Status and Trends of Aquaculture, the Working Group of Experts on the FAO Aquaculture Questionnaire “FISHSTAT AQ” was convened. This group, including two experts in the design of questionnaires, created a revised format for the FISHSTAT AQ questionnaire, utilizing a simpler, single page design and incorporating the recommendations of the Expert Consultation. This format is being tested and depending on these results, may be ready for general use in 2007. The Working Group also reiterated that the FISHSTAT AQ questionnaire should not be the sole means of information collection from the member countries.

21. The Fisheries Department has worked with the FAO Statistics Division to improve the coverage of aquaculture in the Programme of the World Census of Agriculture, 2010. Previous versions of the Programme provided for the inclusion of aquaculture-related questions, but only within the context of agricultural holdings. Thus, the coverage of aquaculture was limited and the results would be of limited utility. The 2010 version of the Programme⁵ includes guidelines for conducting a joint census of agriculture and aquaculture. In this joint census, holdings that engage in aquaculture, but not in agriculture, would now also be included. This will provide a more complete view of the aquaculture sector in the country.

22. The Fisheries Department has begun compiling the National Aquaculture Sector Overviews (NASO) for many countries. The NASO is a concise and comprehensive cross-domain product that provides a general overview of the status and trends of aquaculture and culture-based fisheries at the national level. Currently about 100 NASOs are being prepared using a

⁵ FAO. 2005. World Programme for the Census of Agriculture 2010. *A system of integrated agricultural censuses and surveys*. Rome. 160 p.

standardized structure and about 20 have been published on the FAO web site⁶. The others will be added as they are completed. The NASOs will be made available in all FAO official languages and will be updated every 4-5 years.

SUGGESTED ACTION BY THE SUB-COMMITTEE

23. The Sub-Committee is invited to:

- comment on the need and potential usefulness of the Draft Strategy and Project Plan, as well as the work of the Expert Consultation on Improving Status and Trends Reporting of Aquaculture and the Working Group of Experts on the FAO Aquaculture Questionnaire “FISHSTAT AQ”,
- review and advise on the contents of the Draft Strategy and the Draft Project Plan, and consider recommending to the Committee on Fisheries the approval of the Strategy,
- advise on the way forward and to express their interest in providing extra-budgetary funding necessary for the implementation of the Strategy and Project, and
- report on efforts to include aquaculture in other data collection and, in particular, agriculture or population censuses.

For an example, please see http://www.fao.org/figis/servlet/static?dom=countrysector&xml=naso_ghana.xml