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COMMITTEE ON FISHERIES

Report of the first session of the

SUB-COMMITTEE ON AQUACULTURE

Beijing, People's Republic of China, 18-22 April 2002

COMITÉ DES PÊCHES

Rapport de la première session du

SOUS-COMITÉ DE L'AQUACULTURE

Beijing (Chine), 18-22 avril 2002

COMITÉ DE PESCA

Informe de la primera reunión del

SUBCOMITÉ DE ACUICULTURA

Beijing, China, 18-22 de abril de 2002

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COMMITTEE ON FISHERIES REPORT OF THE FIRST SESSION OF THE SUB-COMMITTEE ON AQUACULTURE

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COMITÉ DES PÊCHES RAPPORT DE LA PREMIÈRE SESSION DU SOUS-COMITÉ DE L'AQUACULTURE

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COMITÉ DE PESCA INFORME DE LA PRIMERA REUNIÓN DEL SUBCOMITÉ DE ACUICULTURA

Beijing, China, 18-22 de abril de 2002

FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS ORGANISATION DES NATIONS UNIES POUR L'ALIMENTATION ET L'AGRICULTURE ORGANIZACIÓN DE LAS NACIONES UNIDAS PARA LA AGRICULTURA Y LA ALIMENTACIÓN Rome/Roma, 2002

PREPARATION OF THIS DOCUMENT

This is the final report approved by the first session of the Sub-Committee on Aquaculture.

PRÉPARATION DE CE DOCUMENT

Le présent document est le rapport final approuvé par le Sous-Comité de l'Aquaculture du Comité des pêches à sa première session.

PREPARACIÓN DEL PRESENTE INFORME

Este es el informe final aprobado por la primera reunión del Subcomité sobre Acuicultura del Comité de Pesca.

Distribution/Distribución:

- All FAO Members/Tous les Membres de la FAO/Todos los Miembros de la FAO
- Participants at the session/Participants à la session/ Participantes en la reunión
- Other interested Nations and national and international organizations/Autres pays et organisations nationales et internationales intéressés/Otros países y organizaciones nacionales e internacionales interesados
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- FAO Regional Fishery Officers/Fonctionnaires régionaux des pêches de la FAO/Oficiales Regionales de Pesca de la FAO

Committee on Fisheries/Comité des pêches/Comité de Pesca.

Report of the first session of the Sub-Committee on Aquaculture. Beijing, China, 18-22 April 2002.

Rapport de la première session du Sous-Comité de l'Aquaculture. Beijing (Chine), 18-22 avril 2002.

Informe de la primera reunión del Subcomité sobre Acuicultura. Beijing, China, 18-22 de avril de 2002.

FAO Fisheries Report/ FAO Rapport sur les pêches/ FAO Informe de Pesca. No. 674. Rome, FAO. 2002.

ABSTRACT

At its Twenty-fourth Session, the Committee on Fisheries (COFI) decided to establish a Sub-Committee on Aquaculture to provide a forum for consultation and discussion on aquaculture and to advise COFI on technical and policy matters related to aquaculture and on the work to be performed by FAO in the subject matter field of aquaculture. The first session of the Sub-Committee was held in Beijing, China, from 18 to 22 April 2002.

The Sub-Committee recognized the important role that aquaculture could play in improving livelihoods, generating income, and stimulating national and regional development and identified the following as key priority areas for future work:

- i. Creating an enabling environment for the promotion of sustainable aquaculture development and management.
- ii. Establishing a framework for sustainable rural aquaculture development.
- iii. Education, information sharing and capacity-building.
- iv. Data collection and reporting to improve knowledge and management of the sector.

The Sub-Committee also recognized the current inadequacy of Regular Programme funds to successfully carry out the activities recommended during this Session. It requested that the FAO Fisheries Department reviews its Medium-Term Plan (MTP) for its compatibility with the recommendations made during this Session, and develop new programme entities with budget requests, as appropriate, to accommodate these un-funded needs, and submit to the next COFI Session. The Sub-Committee requested the FAO Fisheries Department to make a report on its efforts in this regard, and present this to the next Session of the Sub-Committee.

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OPENING OF THE SESSION

1. The First Session of the Sub-Committee on Aquaculture of the Committee on Fisheries (COFI) was held in Beijing, People's Republic of China, from 18 to 22 April 2002 at the kind invitation of the Government of the People's Republic of China. It was attended by 49 Members of FAO, by an observer from one non-Member Nation of FAO, by a representative from one specialized agency of the United Nations and by observers from eight intergovernmental and international non-governmental organizations. The list of delegates and observers is given in Appendix B to this report.

2. On behalf of the Director-General of FAO, Mr Jacques Diouf, Mr Ichiro Nomura, Assistant Director-General, Fisheries Department, expressed the appreciation of FAO to the People's Republic of China for their generous hospitality and the excellent preparations which had been made for the Session. Mr Nomura remarked that the Sub-Committee was the first ever global intergovernmental forum to discuss issues concerning sustainable development and management of aquaculture. He also acknowledged with thanks the financial support of the Government of Italy. The full text of the opening statement is contained in Appendix D.

3. The welcoming address on behalf of the People's Republic of China was delivered by His Excellency Qi Jingfa, Vice Minister of Agriculture. He stated that the choice of China for the venue of the First Session of the COFI Sub-Committee on Aquaculture was of symbolic significance as it was in China that aquaculture was first developed over two thousand years ago. The welcoming address is attached as Appendix E to this report.

ELECTION OF THE CHAIRPERSON, VICE-CHAIRPERSONS AND RAPPORTEUR

4. The Sub-Committee noted the Declaration of Competence and Voting Rights presented by the European Community and proceeded to elect the office bearers for the Session.

5. Mr Glenn Hurry (Australia) was unanimously elected Chairperson of the Sub-Committee and Mr Jens C. Holm (Norway), Mr Thomas W. Maembe (Tanzania) and Mr Li Jianhua (China) were elected Vice-Chairpersons.

6. The Sub-Committee elected Mr Alfredo Herrera Mesina (Mexico) as Chairperson of the Drafting Committee with the following membership: Canada, Chile, China, Côte d'Ivoire, Cuba, Fiji, Hungary, India, Italy, Lebanon, Mexico, Oman, Senegal, Uganda, United States of America.

ADOPTION OF THE AGENDA AND ARRANGEMENTS FOR THE SESSION

7. The Agenda shown in Appendix A was adopted by the Sub-Committee. The documents which were before the Sub-Committee are listed in Appendix C.

AQUACULTURE DEVELOPMENT AND MANAGEMENT: STATUS, ISSUES AND PROSPECTS

8. The Secretariat introduced document COFI:AQ/I/2002/2 outlining status, issues and prospects for aquaculture development and management. Most delegates commended the Secretariat on the quality of the working and information documents.

9. Many Delegates acknowledged the important role of commercial and rural aquaculture and described their experiences in aquaculture development. The Sub-

Committee indicated that it would be extremely beneficial if these experiences could be shared. Noting that the Sub-Committee is the only global forum for intergovernmental multilateral discussions on aquaculture delegates reaffirmed that the Sub-Committee provided a forum for such an exchange of information.

10. Some delegates stressed that environmental impact assessment should be an important aspect of aquaculture development. Thus it was suggested that FAO might consider to undertake comparative analyses of the environmental impacts of agriculture and fishery production, including an analysis of the terrestrial livestock and crop sectors. The impacts of alien species (exotic species, introductions and/or translocations), antibiotics and other inputs, and genetically altered species on biodiversity, should be an important part of environmental impact assessment.

11. Several delegates acknowledged the importance of integrated resource management in reducing the use of inputs, such as feed and fertilizer, and the recycling of water. Water management was stressed as an important element of resource management and it was emphasized that countries should develop water resource management plans which included aquaculture activities where necessary. One delegate identified tourism as a sector that needed to be part of the integration. The Sub-Committee pointed out that factors associated with other sectors impact and constrain aquaculture development, including loss and degradation of aquatic habitat, reduction in freshwater quantity and quality, poor land use and genetic contamination of species.

12. Many delegates stressed that the issue of food quality, product safety and certification has important considerations for international trade and access to foreign markets, especially for developing countries. It was noted that some developing countries do not have the capacity to collect necessary information for some types of product certification. The Sub-Committee suggested that FAO develop guidelines for the elaboration of transparent and non-discriminatory certification procedures. Particular mention was made of the recent labelling initiatives in Japan and the European Community to distinguish farmed from wild products and increased demands for traceability of food products. The delegation of Canada informed the Sub-Committee that it would be willing to offer technical assistance to developing countries to assist them in meeting food safety certification obligations.

13. The Sub-Committee acknowledged the importance of international trade in aquaculture products. Several delegates stated that access to markets should be fair and that import/export standards on, *inter alia*, food quality, should be harmonized in order to avoid non-tariff trade barriers. The Sub-Committee urged close communication between developed and developing countries in these matters and that developed countries should provide technical assistance to developing countries in meeting these requirements.

14. The Sub-Committee further acknowledged that aquaculture can provide products for local and external markets and noted that export-oriented aquaculture may create conflicts for local communities. Delegates suggested that commercial aquaculture and rural small-scale aquaculture should cooperate rather than compete and that rural communities should be considered in policies on aquaculture development. The Sub-Committee also stressed the need to update information on aquaculture development and make this available, especially with regard to rural development.

15. Many delegates highlighted the need for creating conducive policy, financial and legal environments for aquaculture development, that included, *inter alia*, individual and community-based legal frameworks addressing the rights and obligations of aquaculturists, and which will improve access to credit. Some delegates informed the Sub-Committee that they have taken steps, such as the issuing of permits, to confer such rights to aquaculturists

in their countries. Several delegates stressed that incentives should be provided to help promote sustainable aquaculture development and policies needed to be developed at national level for both the public and private sector. Such policies should address, *inter alia*, use of public resources, conflict identification and resolution, small-scale aquaculture, and use of alien species.

16. The Sub-Committee acknowledged that sub-regional, regional, and bilateral collaboration were of extreme importance, taking the form of information exchange, technology transfer, south-south cooperation, and education and training. Existing mechanisms, such as Technical Cooperation among Developing Countries (TCDC), could be reviewed to improve their effectiveness. In this regard the Network of Aquaculture Centres in Asia-Pacific (NACA) offered their assistance in convening an ad hoc meeting to address inter-regional cooperation. The European Aquaculture Society (EAS) suggested that FAO, together with non-governmental organizations (NGOs) and others, create user-friendly statements for the mass media and consumers in order to foster a conducive institutional and policy environment. It was also noted that more collaboration was needed within States between relevant government agencies and stakeholders.

17. The Sub-Committee appreciated the role that technology can play and raised several important technical issues relating to aquaculture research, development and management. Delegates identified biotechnology, specifically disease resistance and genetic technologies, as well as fish health and quarantine, food quality, feed technologies, stock enhancement, culture-based fisheries and stock restoration, development of new species for aquaculture and improved domesticated strains, risk assessment, and food safety technologies as areas requiring technical assistance. Research was also identified as being needed in aquaculture production, consumer organizations, consumer information and trade.

18. The Sub-Committee highlighted the importance of education, training, human resource development, and the strengthening of extension services, especially in low input systems and stressed the important role FAO could play in this regard.

19. Some delegates noted the importance of aquaculture for small island developing States, as well as the potential for the culture of ornamental fishes and live fish feed.

20. Delegates stated that it was necessary to develop strategies for responsible aquaculture development that would include fishery and environmental conservation, consumer health, seed and feed quality, economic viability and market development, and that developing countries should be assisted in formulating these strategies. The Sub-Committee recognized the limited resources of FAO and suggested that countries submit to FAO reports on their various activities related to aquaculture development and management in order to start a process of information sharing to assist FAO in future work.

21. Several observers stated their desire for increased collaboration with FAO. Key areas identified were aquaculture and poverty alleviation within rural development in collaboration with NACA and fish health management in collaboration with the International Office of Epizootics (OIE).

THE ROLE OF AQUACULTURE IN RURAL DEVELOPMENT

22. The document COFI:AQ/I/2002/3 was presented to the Sub-Committee by the Secretariat summarizing the role of aquaculture in rural development. There was general acceptance of the information contained in the document and its relevance to FAO Members. There were however a number of requests for a greater recognition of the role of rural aquaculture as an income generating activity. The Secretariat also clarified for the benefit of the Sub-Committee, that the FAO definition for aquaculture included culture-based fisheries.

23. The Sub-Committee stressed the importance of guidelines for the establishment of a framework for rural aquaculture development. The Sub-Committee also highlighted the need for distinct national and regional policy specific to rural aquaculture development. As part of policy development, the strengthening of national legislation and regulatory frameworks was also emphasized as a requirement. Such frameworks would cover, *inter alia*, the issues of master plan, land tenure and agrarian reform, environmental protection and licensing for aquaculture.

24. Some delegates expressed appreciation to FAO for assistance that had been provided in elaborating legislative and regulatory frameworks, while other delegates requested FAO to provide assistance in this area. Several delegates acknowledged the importance of appropriate management practices and the need for adequate understanding of the requirements for exportation of aquaculture products. The Sub-Committee felt that the basis for rural aquaculture development is the promotion of aquaculture that meets with the conditions for sustainability.

25. Several delegates stressed the need to document and disseminate success stories in aquaculture development and from this draw out the strategies that have been used for successful development and the benefit of society. It was noted that unsuccessful previous attempts to promote rural aquaculture development faced similar problems to those of the agriculture sector. It was acknowledged that several issues relating to the role of rural aquaculture such as domestic fish consumption, direct and indirect employment and the economic advantages and disadvantages within rural aquaculture were still poorly understood and would benefit from focused studies. Another area of concern is the general improvement of statistics for rural aquaculture, in particular, disaggregated data relating to women. The Sub-Committee expressed the need for a socio- economic comparative evaluation of use of land and water for aquaculture with respect to other forms of agriculture and also how aquaculture adds value to water resources in farming systems.

26. The Sub-Committee expressed considerable need for greater exchange of information and experience on development of rural aquaculture, through regional and interregional networks and collaboration between neighbouring countries. Specific mention was made of the catalytic role that FAO could play in promoting cooperation between multiple-organizations and governments.

27. Many delegates noted that there was limited adoption of aquaculture in rural areas due to farmers' uncertainty of the benefits of aquaculture. It was emphasized that there was a need to raise awareness that rural aquaculture is a cost effective activity, with social, economic and environmental benefits, particularly when integrated with other agricultural activities. It was also recognized that there is a need to balance food security and income generation. Furthermore, it was noted that women play an important role in many aquaculture and related activities. Several delegates highlighted the importance of quality extension in rural aquaculture development and the need for innovative, low-cost extension mechanisms. It was also noted that such methods should include more effective identification of target groups and their greater participation in decision-making processes.

28. Many delegates indicated the benefit of some degree of organization of aquaculture producers including at the regional level. This could entail the formation of groups, cooperatives, larger associations and/or regional organizations, which would facilitate contact, delivery of information and extension services, the tracing and certifying of products and adoption of better management practice. Such higher levels of organization also create an enabling environment for the application of development strategies and regulatory frameworks.

29. The Sub-Committee acknowledged that an enabling environment for rural aquaculture development requires both technical and non-technical factors. These include, *inter alia*, need for governments to support planning and education and for political support to facilitate and promote aquaculture growth, access to quality inputs such as fingerlings, alternatives to fishmeal, low cost feeds, and access to markets and financing. The value adding of aquaculture products through processing may enhance economic viability, especially when coupled to more effective marketing. An observer warned that moving between extensive multi-species systems with low inputs, towards higher input intensive systems might not always benefit rural development.

TOWARDS SUSTAINABLE AQUACULTURE DEVELOPMENT: PROGRESS IN THE IMPLEMENTATION OF AQUACULTURE-RELATED PROVISIONS OF THE CODE OF CONDUCT FOR RESPONSIBLE FISHERIES

30. The Secretariat introduced Agenda item 6 on the basis of document COFI:AQ/I/2002/4 which referred to the Code of Conduct for Responsible Fisheries (CCRF) with specific reference to its articles relating to aquaculture.

31. Delegates were invited to consider experiences and lessons learnt in the implementation of the Code with respect to aquaculture and culture-based fisheries and to advise on the role and function of FAO in addressing relevant issues. They were also requested to identify specific action to be taken by the FAO Fisheries Department, Members of FAO and regional and international organizations concerned with sustainable aquaculture development and the implementation of the Code.

32. Most delegates complimented the Secretariat on its succinct yet thorough presentation of the subject and expressed gratitude to FAO for the work carried out in promoting the implementation of the Code.

33. In their subsequent interventions, many delegates reiterated their support for the Code and shared experiences and lessons learnt in its implementation. Many indicated that their countries had translated the Code into local languages and widely distributed it to a variety of stakeholders and/or have undertaken other steps for its implementation.

34. The Sub-Committee noted that additional assistance was necessary in elaborating technical aspects in the implementation of the Code, dissemination and exchange of information, capacity-building, extension, education and training and networking along with intra- and inter-regional collaboration/cooperation including traditional knowledge. It further noted that mechanisms that ensure information delivery to grassroots producers, processors and consumers were not always functioning effectively in many countries. These difficulties could, at times, be magnified in countries where the institutional setting of, and responsibilities for, aquaculture were ambiguous, or overlapping. The Sub-Committee suggested that States establish appropriate institutional structures responsible for aquaculture.

35. The Sub-Committee reiterated the importance of regular reporting on the implementation of the Code and requested that the Sub-Committee receive specific aquaculture reports by Members with a comprehensive status report prepared by FAO. Reporting should cover both progress reports by member countries, summarizing progress in implementing the Code at the national level, as well as comprehensive status reports prepared by FAO for member countries that provide information compilation, analysis and feedback, particularly from past experience. It was stressed that these latter serve to encourage countries, individuals and all stakeholders in adopting the Code and enacting relevant legislation and policies to ensure its proper functioning. The Sub-Committee supported the FAO initiative of developing a data bank of national Codes and other useful

material produced by organizations, including NGOs, to be made available to all member countries.

36. Most delegates strongly suggested that a series of environmental, social and economic risk assessment studies be undertaken by FAO as an impartial third party to establish reliable baseline information using the best scientific and technical knowledge available as to the composite risks that apply to the implementation of aquaculture operations and how these are regulated/monitored by various aspects of the Code. Results of such activities could dispel misinformation circulating regarding the purported risks associated with aquaculture and encourage governments to foster an enabling environment for the growth of the sector. One delegate suggested that for such studies specific activities to be undertaken should be identified in advance.

37. Assurance of health for both the environment and consumers of aquaculture products was identified as a key factor in developing sustainable aquaculture, particularly the proper use of chemicals and antibiotics. It was also pointed out that certification of best practices could serve to facilitate the expansion of global trade in aquaculture products. However, some delegates expressed concern about the possibility of its use as a non-tariff barrier to international trade. The Sub-Committee stated that the establishment of harmonized standards for quality and safety of aquaculture products should be based on available scientific evidence and would provide benchmarks for measuring impact and adherence to best practices. Wide acceptance of such standards could increase fair accessibility to world markets by a broader spectrum of producers. The Sub-Committee noted that harmonization with OIE standards is considered essential for successful international trade.

38. The Sub-Committee recognized several recent regional and international fora and related activities that had played significant roles in supporting the implementation of the Code. Among others, these included the 2nd International Symposium on Sea Ranching and Marine Stock Enhancement, the FAO/World Bank/NACA and the World Wide Fund for Nature (WWF) Consortium Programme on Shrimp Farming and the Environment and the development of Asia Regional Technical Guidelines on Health Management. The Sub-Committee underscored the need to promote and continue such activities.

39. The Sub-Committee further recognized the important role of socio-economic and regulatory aspects in responsible aquaculture development. It suggested that FAO should continue to address by a variety of activities those issues which constrain government decision-making processes. The Sub-Committee stressed the need for the increased involvement of producers in such activities.

NEEDS FOR BETTER REPORTING ON THE STATUS AND TRENDS OF AQUACULTURE DEVELOPMENT

40. The Secretariat presented document COFI:AQ/I/2002/5 discussing the importance of improving aquaculture data, statistics and data collection standards for aquaculture development, management and their reporting. Moreover the document provided an overview of FAO's work on aquaculture information and data. The Sub-Committee appreciated the quality of the document and thanked the Secretariat.

41. The relevance of the issues presented in this document was evident from several earlier interventions on data and statistics made by delegates on preceding agenda items. The Sub-Committee recognized the importance of good quality statistics and urged Members to collaborate more closely with FAO in the collection and analyses of aquaculture related information, data and statistics. It emphasized that this was needed in order to describe the status of the sector and monitor emerging trends for policy making and management purposes.

42. The Sub-Committee acknowledged the different aquaculture data needs of its Members. It was suggested that as a minimum, the following data should be collected and reported:

- Estimates of total production of fish, by species of major commercial importance, by aquatic environment and types of site, in terms of weight.
- Estimates of total farm-gate value of aquaculture products by species.
- Unit prices at farm-gate level (product prices) by species.
- The number and types of installation, and their location and size.
- The number of aquaculture workers and labourers, whether permanent or occasional.
- Data to verify information on the contribution of aquaculture to rural development.
- The estimation of data on the domestic consumption of aquaculture products.
- Data on export quantity and value.
- Estimates of net earnings from aquaculture.

43. The Sub-Committee considered that the quality of the FAO statistics on fisheries and aquaculture has improved in recent years. It however expressed concern about the accuracy and reliability of the data received. The Norwegian delegate suggested that FAO assess the quality of the data it receives and disseminates and report on how data reliability, where necessary, could be improved for submission to the next Session of the Sub-Committee.

44. The Sub-Committee recognized the continuing efforts of FAO in formulating and reaching consensus on an internationally acceptable working definition of aquaculture. It pointed out that this was essential in order to differentiate clearly between production from aquaculture and that from capture fisheries. In this regard, the Sub-Committee highlighted the need for clear definitions on aquaculture-based fisheries and emerging technologies (e.g. there was a need for greater harmonization on production systems such as tuna fattening). In particular concern was expressed by several delegations regarding the current reporting status on tuna fattening, which increased uncertainty in statistical information to manage resources. It was stressed that improvement of reporting in this regard is necessary to ensure the effectiveness of resource conservation measures taken by regional fishery organizations.

45. Many delegates noted the need for assistance from FAO in developing unified standards and guidelines for data collection. It was noted that duplication of effort in data collection should be avoided since in many member countries, the number and availability of fisheries staff for statistical work is often limited. Particular mention was made of the need for incorporation of aquaculture into relevant existing national data collection systems (e.g. agricultural census, consumption and labour surveys). Some delegates stated that there is a need for identifying the most appropriate methodologies for data collection for each production system in view of the great variety and diversity in aquaculture.

46. The Sub-Committee stressed that training and education in data collection, analysis, storage, management and dissemination were fundamental in securing the availability of good quality data. Some delegates requested FAO to continue to assist them in building national capacity on these issues through the FAO Technical Cooperation Programme. In view of the limited resources available the Sub-Committee recognized that the organization of regional workshops was a cost effective tool for providing training on statistical information management systems.

47. Several delegates referred to the Technical Consultation on Improving Information on Status and Trends of Capture Fisheries held in Rome, Italy from 25 to 28 March 2002, which agreed on a draft international strategy on the subject, that will be submitted to COFI

in 2003. As aquaculture could not be incorporated into this strategy, the Sub-Committee suggested that an approach should be developed for improving information on aquaculture status and trends.

48. Some delegates noted that the quality of FAO fisheries and aquaculture statistics is affected by incomplete reporting. It was suggested that FAO should continue to make efforts to facilitate reporting through improvement of its statistical enquiry and its procedures for communication with Members. In this respect, the Sub-Committee was informed of the work of the Coordinating Working Party on Fishery Statistics (CWP) in which, *inter alia*, Eurostat, OECD and FAO work together on harmonizing aspects of data quality and accessibility. In this regard the European Community informed the Sub-Committee that its Members are obliged to report on aquaculture production. For this purpose, only the first part of the FAO questionnaire was used; the second part should be examined more closely to study the definition proposed by FAO as well as the concept of confidentiality.

PRIORITY AREAS

49. The Sub-Committee reiterated that globally, aquaculture is a fast growing activity. It is practised with complex interactions between natural, social, economic and policy environments. Development of this sector requires integrated efforts to harmonize public and private sector needs and to preserve inter-generational rights. In doing so, future development plans must recognize the considerable differences that exist in geographical, cultural, social, economic and technical dimensions and pay particular emphasis to the potential contribution that aquaculture can make to food security and poverty alleviation while considering the role of women in this sector.

50. The Sub-Committee recognized the important role that aquaculture could play in improving livelihoods, generating income, and stimulating national and regional development. The Sub-Committee also recognized the current inadequacy of Regular Programme funds to carry out successfully the activities recommended during this Session. In the light of the above, the Sub-Committee recommended that the FAO Fisheries Department reviews its Medium-Term Plan (MTP) for its compatibility with the recommendations made during this Session, and develop new programme entities with budget requests, as appropriate, to accommodate these un-funded needs, and submit to the next COFI Session. These funds should be sought either from the Regular Programme budget or from extra-budgetary sources. The Sub-Committee requested the FAO Fisheries Department to make a report on its efforts in this regard, and present this to the next Session of the Sub-Committee.

51. As a result of its deliberation and taking into account the above considerations (paragraphs 49 and 50), the Sub-Committee identified the following as key priority areas for future work:

- i. Creating an enabling environment for the promotion of sustainable aquaculture development and management. This would include among others the development of guidelines for the elaboration of transparent and non-discriminatory certification procedures, risk assessment studies, establishment of harmonized aquaculture quality standards, consumer health, economic viability, undertaking comparative analyses on the environmental cost of aquatic food production in relation to other terrestrial food production sectors, increasing the involvement of the private sector and producers in the decision-making process and the creation of a data bank of national Codes and other useful material produced by other organizations.
- ii. Establishing a framework for sustainable rural aquaculture development. In view of the important contribution of rural aquaculture to food security and the

improvement of sustainable livelihoods, emphasis should be placed, among others, on developing guidelines and strategies for sustainable rural aquaculture development. These should include awareness raising, success stories, effective extension services, fishery and environmental conservation, availability and quality of seed and feed, exchange of experiences, risk assessment studies, establishment of harmonized aquaculture quality standards and socio-economic impacts, including the role of women.

- iii. **Education, information sharing and capacity-building.** This is a cross-cutting theme which is relevant to most aspects of aquaculture development and management. Special emphasis should be given to south-south collaboration and networking at sub-regional, regional and bilateral levels for information exchange and technology transfer.
- iv. Data collection and reporting to improve knowledge and management of the sector. This would include education and training (data collection, analysis, storage, management and dissemination) as well as the establishment of unified standards and guidelines for data collection and clearer definitions of the terminologies used in the sector.

ANY OTHER MATTERS

(a) Funding

52. The Sub-Committee urged that, in the light of the levelling off of production from capture fisheries and increasing demand for fish and fishery products, there was a need to develop aquaculture world wide. The Sub-Committee requested that COFI should make efforts to convince FAO to allocate additional funds to the Fisheries Department for aquaculture activities.

53. Upon request by several delegates regarding the mechanisms for funding FAO work in aquaculture and in particular the activities of the Sub-Committee, the Secretariat explained the relevant regulations governing FAO statutory bodies such as COFI and its Sub-Committees. Decisions taken in this regard at the Twenty-fourth Session of COFI (February 2001) were also explained. Responding to questions regarding the Sub-Committee's ability to deal with urgent matters, the Secretariat explained that ad hoc working groups were one of the mechanisms by which this could be achieved. Several delegates stressed that for the Sub-Committee to work in a timely and efficient manner, its activities should be prioritized and specific resources should be secured for this.

(b) Pearl culture

54. The observer from the Secretariat of the Pacific Community (SPC) noted that whilst the aquaculture of pearls was of significant economic value in the region covered by the SPC and several other countries, this commodity was not specifically mentioned in the documentation prepared for the Session. The Secretariat recalled the work that FAO has carried out on pearl culture in the Pacific.

(c) Acknowledgements

55. The Sub-Committee expressed its appreciation to the Government and people of the People's Republic of China for their hospitality and the excellent facilities that were provided for the Session.

DATE AND PLACE OF THE SECOND SESSION

56. Norway offered to host the Second Session of the Sub-Committee in Trondheim, Norway, in August 2003 in conjunction with the European Aquaculture Society Symposium and the AquaNor Exhibition. The Sub-Committee accepted with thanks the offer of the Government of Norway. The Secretariat informed the Sub-Committee that the precise dates and details of the organization of the Second Session will be decided upon by the Director-General of FAO in consultation with the Government of Norway and the Chairperson of the Sub-Committee.

ADOPTION OF THE REPORT

57. The report of the Sub-Committee was adopted on 22 April 2002.