

Report of the

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**FAO/JAPAN EXPERT CONSULTATION ON THE  
DEVELOPMENT OF COMMUNITY-BASED COASTAL FISHERY  
MANAGEMENT SYSTEMS FOR ASIA AND THE PACIFIC**





**REPORT OF THE  
FAO/JAPAN EXPERT CONSULTATION ON THE DEVELOPMENT OF  
COMMUNITY-BASED COASTAL FISHERY MANAGEMENT SYSTEMS  
FOR ASIA AND THE PACIFIC**

Kobe, Japan, 8-12 June 1992

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### **PREPARATION OF THIS DOCUMENT**

This document is the report of an Expert Consultation held by FAO in cooperation with the Japanese Fisheries Agency in Kobe, Japan, 8-12 June 1992.

The document comprises the final report of the Consultation as approved by the participants; list of participants; agenda; and list of documents. The papers prepared for the Consultation are presented in two separate documents.

#### **Distribution:**

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This One



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#### **ABSTRACT**

Effective management of small-scale fisheries is an extraordinarily difficult task. Community-based approaches to management appear to offer important opportunities in certain situations. Extensive experience of such approaches in Japan provides valuable lessons of both the difficulties and the opportunities for this approach. The Consultation examined these experiences, as well as others in the Asia and the Pacific region. It identified the critical factors that facilitate or constrain community-based management; it identified guiding principles for the adoption and implementation of such systems; and it made proposals for short- and long-term projects and programmes to encourage increased use of community-based approaches.

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## OPENING OF THE CONSULTATION

1. The FAO/JAPAN Expert Consultation on the Development of Community-Based Coastal Fishery Management Systems for Asia and the Pacific was held at the International Conference Center in Kobe, Japan, 8-12 June 1992. The Chairman of the Consultation was Dr. Fukuzo Nagasaki and the Vice-Chairman was Mr. Benito Bengzon. Dr. Masamichi Hotta was Technical Secretary and Dr. Francis Christy was Chief Rapporteur. The list of the participants is at Appendix A. The prospectus is at Appendix B; the Agenda is at Appendix C and the List of Documents at Appendix D.
2. The Consultation was opened by welcoming speeches from Mr Toshihiko Tsuruoka, Director General, Fisheries Agency, Ministry of Agriculture, Forestry and Fisheries; Mr Hidehiko Itano, Vice Governor, Hyogo Prefecture; Mr Takumi Ogawa, Deputy Mayor, Kobe City; Mr Koji Nakamura, President Japan, Sea Farming Association; and Mr. Bamidele Dada, Director of the FAO Fishery Policy and Planning Division.
3. The Consultation was called to examine community-based management systems as a means for improving the benefits that can be derived from the coastal fishery resources in the Asia and Pacific region. The need for more effective fisheries management has become increasingly apparent in recent years due to the increasingly severe depletion of coastal fish stocks and to the growing conflicts among different groups of fishermen. Conventional approaches to management, based on central control, so far, have had only limited success. And, although there remain considerable opportunities for improvement in the conventional approaches, alternative techniques also merit examination.
4. Community-based management systems provide an approach that appears to have many advantages over conventional approaches in many situations. Although these systems are not universally applicable to all situations, experience, particularly in the case of Japan, indicates that they can be highly effective.
5. The purposes of the Consultation, as stated in the Prospectus, were:
  - a. To review the present policies and legislation for coastal fisheries management of participating countries, including the experiences of fishermen's organizations in fishery management tasks;
  - b. To identify critical issues that facilitate community-based fishery management which may include new legal arrangements, adoption of proper institutions, etc.;
  - c. To review the requirements for the planning process and implementation phase of decentralized management measures at national, state and local levels, and define the role and responsibilities of the entities involved in the field of plan preparation, monitoring, control, surveillance and finance;
  - d. To examine possible strategic options and the various ways and means of achieving sustainability of artisanal fisheries including decentralized management systems, the methods for adjusting the rate of fishing, the investments at the desired levels, etc.;



- e. To develop guiding principles and propose specific action which can lead to sustainable forms of artisanal fisheries and rural fishing communities development.

**SESSION 1: EXPERIENCES IN COMMUNITY-BASED FISHERIES MANAGEMENT AND IDENTIFICATION OF CRITICAL ISSUES THAT FACILITATE APPROACHES IN FISHERY MANAGEMENT**

**ITEM 1: MANAGEMENT APPROACHES BY TYPE OF FISHERIES AND AQUACULTURE (E.G. COASTAL FINFISH, CRUSTACEANS, SHELLFISH, SEAWEEEDS, CORAL, ETC.).**

Discussion Leader: F. Nagasaki

Rapporteurs: M. Hotta and D. Douman

**Part A: Experiences in developing countries**

6. Reports were presented concerning the general fisheries situations in Bangladesh (by Mr. A. K. Rahman); People's Republic of China (by Mr. Zhou Ying-Qi); India (by Dr. K. M. Joseph); Indonesia (by Mr. Untung Wahyono); Kiribati (by Mr. Temakei Tebano); Republic of Korea (by Mr. Kyung Yong Kim); Malaysia (by Ms. Jahara Yahaya); the Philippines (by Mr. G. L. Morales); Sri Lanka (by Ms. P. Dayaratne); and Thailand (by Ms. R. Tokrisna). With respect to community-based fishery management several reports noted the existence of traditional management systems while other reports indicated that countries were actively promoting the participation of fishing communities in management.

7. Traditional fisheries management systems remain largely intact in Indonesia and Kiribati. In these countries, the traditional systems are based to a significant extent on various types of controls that are quite similar to contemporary management measures (e.g., closed seasons and areas, etc.). Failure to observe communally sanctioned fisheries management measures normally results in the imposition of penalties and social embarrassment through peer pressure. While traditional management systems have generally led to stability, sustainability and an equitable sharing of resources, social change and the evolution of market forces threaten the continuation of these systems.

8. In promoting community-based fisheries management systems, fishermen's cooperatives were identified as an important tool of implementation. In the Republic of Korea, cooperative arrangements are in place for the management of fisheries. However, not all of these arrangements are effective in promoting rational resource use because of their inability to limit fishing effort. The Government of Sri Lanka has a definite policy to involve resource users in management and strengthen cooperatives to facilitate the introduction of community-based fisheries management. In India, only about 11% of active fishermen are members of cooperatives. This limited coverage and the fact that cooperatives do not play a significant role in fisheries, restricts their involvement in management. Nonetheless, there are some fisheries in India where traditional management practices are used to enhance resource use.

9. In Thailand, the Government is developing a policy to involve fishermen in decisions concerning fisheries management. The Government has acknowledged the benefits of involving resource users in decisions concerning resource use. In the Philippines, the Government, in 1990, decentralized responsibility for the management of coastal fisheries. As part of this process, local governments and fisheries associations are now critically involved in determining appropriate management measures for these fisheries.

10. Economic reform in the 1980s in the People's Republic of China led to a movement away from fisheries production on a team basis to production on an individual basis. Although some fisheries management and administration problems resulted from this reorientation, it also led to fishermen forming societies to practice self-management (e.g., the stow net fishery of Mayi Island).

11. The maintenance of centralized fisheries management systems in some countries has not yet resulted in the development of community-based fisheries management systems.

12. Constraints to the maintenance or implementation of community-based fisheries management systems were noted in several countries, including Kiribati, the People's Republic of China, Thailand, Bangladesh, Malaysia and Sri Lanka. In most instances, fishermen's education programmes concerning the importance and benefits of community-based fisheries management and enhanced extension services were identified as possible solutions to these constraints.

13. All reports pointed to the need to strengthen fisheries management, particularly in coastal areas where artisanal fishermen are vitally dependent on the exploitation of inshore resources. Some reports noted that these fishermen are among the most socially disadvantaged groups. Their participation in fisheries management decisions was seen as a means of contributing towards an improvement in their standard of living.

#### Part B: Japanese experiences in coastal fisheries management

##### *Fishermen-initiated measures*

14. New concepts for coastal fisheries management were developed in Japan in the late 1970s largely through fishermen initiatives. The management measures initiated by fishermen are based on consensus among themselves; aim at maintaining and improving incomes as well as sustaining the resources; and are designed to achieve equitable distribution of benefits. Once fishermen become aware of the significance of fishery management, they take initiatives.

##### *Fishery Management Organizations (FMO's)*

15. The 1988 Fishery Census identified 1,339 organizations of fishermen whose basic aim was the collective management of the resources and establishment of orderly fishing operations, through democratic decision-making processes. These organizations are often formed by a group of fishermen within a fisheries cooperative association, engaged in exploiting a particular resource with a particular gear. Sometimes, an FMO is organized by fishermen from several neighboring cooperative associations when they deal with mobile fish species.

### *Activities of Fishery Management Organizations*

16. FMOs are presently concerned mainly with sedentary coastal resources rather than more mobile pelagic species. The activities fall into four main categories: (i) effective use of fishing grounds; (ii) market-oriented measures; (iii) management of the recruited stock, and (iv) management of stock reproduction.

17. In some cases, fishery boats tend to congregate on excellent fishing grounds leading to overcrowding. To reduce congestion, an FMO may adopt a pooling system, under which total revenues are shared or may establish a system for rotating access to the grounds.

18. The maintenance of fish prices often becomes the central aim of fishery management. Excessive competition based on free access forces fishermen to concentrate on fishing, leaving little time for keeping fish fresh. Landings may also be concentrated at particular times, leading to a glut on the market.

19. The management of the recruited stock is primarily aimed at increasing the value of landings by harvesting larger sized fish. The mesh size increase is effective in this context. This method serves the equally important purpose of promoting reproduction by increasing the number of adult fish. However, there have not been many efforts to increase stock reproduction other than in the case of sedentary resources. It is difficult for a single cooperative association to manage mobile fish species since the measures may need to be implemented by several neighboring villages.

#### *Increased mesh size*

20. In three prefectures, fishermen voluntarily started an experiment in the use of increased mesh size and it is now increasingly practiced in Japan due to several benefits. Although catch quantity is reduced, value is increased because of higher prices for larger fish. One study indicated that profit rose four-fold. The effect appears rather quickly for fish of a long life span (e.g., flat fish). Little cost is involved and the measure does not involve complicated resource assessment surveys.

### *Coastal Fishing Ground Enhancement and Development Programme*

21. The above programme was started in 1974. The objective is to achieve the sustainable development of coastal resources in order to provide a stable supply of fish. Implementation of management measures would be effective in enhancing the effect of such programmes.

22. The programme consists of three activities. (i) Artificial reefs (ARs) are set with a view to supplementing or expanding the scale of natural reefs. Small size ARs are established near the shore and larger scale reefs offshore. (ii) Habitat construction is undertaken for several reasons. One purpose is to create breeding grounds for sedentary species close to the shore (e.g., abalone, kelp, topshell, etc.). Such facilities are also built for mobile species (e.g., seabream). In addition, the projects aim at creating aquaculture grounds in shallow water areas through the construction of breakwaters, allowing the setting of cage nets within the bays or inlets. (iii) Restoration and maintenance of fishing grounds have been carried out such as the removal of sediment, dredging and construction of waterways in order to restore fishing productivity in coastal waters. There are restrictions on the material to be

used as ARs, in order to comply with environmental principles. For example, old bus bodies and tyres are not used in Japan.

23. The programme has been revised every six years since its inception. Designing of plans is started two years before implementation. The procedures are as follows: The central Government requests the Prefectural Governments to prepare development plans for the waters which come under their jurisdiction. The Prefectural Government consults and solicits ideas from the prefectural federation of fishery cooperatives, primary cooperatives and fishermen. Fishermen propose ideas regarding the types of projects (e.g., location, material, size of ARs). The prefectural fishery experimental stations provide advice and guidance from a scientific and engineering point of view. The Prefectural Government, on this basis, prepares plans taking due consideration of such elements as the establishment of linkages with other related industries, financial capabilities of the Prefectural Government, municipal and village office, as well as fishing cooperatives. The central Government provides subsidies ranging from 50 to 70%, while the rest must be borne by the above organizations.

24. The effects of this programme can be enhanced through appropriate management of ARs and fishing grounds, such as by regulating fishing effort, release of fry/seeds, etc.

25. Views and requests expressed by the beneficiaries are well reflected in the plans. In return, the Prefectural Government calls for cooperation from fishermen in observing regulatory measures to increase the effect of the programme, which includes reduction of excessive fishing effort in the area where ARs are established; prevention of conflicts among fishermen over the use of ARs; establishment of size limits and fishing seasons; prohibition of catching fry/seeds in aquaculture grounds, etc.

26. There are certain pre-requisites for initiating similar programmes. These include: the availability of scientific data, information and statistics; easy access to technical advice and guidance, particularly as to the behavior of fish, their habitats in relation to growth stage; prohibition of free entry; existence of fishermen's organizations which represent the majority of fishermen; existence of possibilities for establishing linkages with fish farming; and the availability of planning capacity in fishery administrations at prefectural and national level.

### Part C Overview of experiences

27. In reviewing the combined experiences of Japan and other countries, it was noted that the motivation for the creation of community-based management systems might be classified into three types: enhancement, efficiency and equity. The first of these has been important in situations where members of a community see that their joint action can lead to stock rehabilitation or enhancement or to the achievement of higher prices in the market. The increase in total returns, however, does not necessarily lead to higher individual profits unless there is simultaneous control over investments in fishing effort.

28. Joint action by community members may also occur when there is a perception that cooperation in the reduction of fishing effort can lead to greater efficiency and higher returns for all participants.

29. A common motivation for community action occurs in situations where there is a desire to achieve equitable returns among the members. In some cases, this becomes most

urgent when there is a high degree of congestion in fishing effort on small but highly productive areas and where this is damaging to all participants. In these cases, cooperative approaches may be taken by the community in order to avoid the damages and achieve equitable benefits for all.

30. The over-view also noted that the community approaches were often subject to both external and internal pressures. As the systems succeeded in reaching their objectives, outsiders exerted pressure to enter the system and participate in the benefits. In addition, population growth within the community might also lead to greater demands for sharing the benefits. Such pressures could lead to a break-down of the management measures.

31. This raised questions as to the identification of a community and whether it included only the fishermen or a wider group such as the village as a whole or a municipality; or how membership in the community might be acquired.

32. It was noted that community based systems would not be applicable for all fisheries in all situations and that combined approaches would generally be necessary.

ITEM 2: IDENTIFICATION OF TECHNICAL, ECONOMIC, SOCIAL AND INSTITUTIONAL PROBLEMS AND CONSTRAINTS WHICH IMPEDE DECENTRALIZATION OF MANAGEMENT RESPONSIBILITIES TO THE LOCAL LEVEL.

Discussion Leader: Jahara Yahaya

Rapporteurs: R. Willmann and P. Martosubroto

33. The introduction to this item was preceded by a presentation on experiences with community-based management of forestry, water and land resources.

34. Taking as a starting point the differences between open access (*res nullius*) and common property (*res communes*), the principal elements of community-based management systems were reviewed for different resources and situations. It was noted that similar management problems and constraints arise with such other resources as in fisheries.

35. Traditional management systems are commonly based on some kind of community organization such as a council or committee and, at the inter-community level, an association or council composed of representatives of the different communities. The organization is usually entrusted with the essential management tasks or it may delegate some of them to a special committee or person such as the "chief of grass" or common irrigators. The management tasks include rules regarding the utilization of the resource; surveillance and enforcement; arbitration and punishment.

36. Among the three principal objectives of management, i.e., resource conservation, efficiency and equity, the first and last appear to be most relevant for traditional management systems. It was noted, however, that all these systems also contribute to improving the efficiency in the use of the resources, either in terms of increasing output or reducing cost when compared with a situation where no management prevails.

37. After the review of experiences with other resources, the Consultation turned to a discussion of the issues associated with fisheries. Three critical areas were identified which pose problems and constraints in the development of community-based management systems: (i) legal and institutional issues; (ii) socio-economic issues; and (iii) political and administrative issues.

38. With regard to legal aspects, it was noted that the devolution of management authority to the local level would require, in many countries, a major or even drastic revision of fisheries laws and possibly other related legislation. This may pose few problems in those situations where some forms of traditional fishing rights already rest with fishing communities as, for example, in the case of Pacific island countries. For other cases where complex political and socio-economic conditions prevail, the required legal changes may be difficult to accomplish.

39. Institutionally, community-based management systems need an organizational structure such as a fishing cooperative or fishermen's organizations. Whereas these kinds of organizations may exist in many countries of Asia and the Pacific, they often are not presently entrusted with management tasks. Indeed, many of them would not be prepared to take on management responsibilities due to lack of the required scientific, technical and administrative capabilities.

40. Socio-economic issues were considered among the most difficult to deal with, in particular the problems of equitably allocating fishing rights in situations marked by great religious, ethnic and social heterogeneity, found in several Asian countries. Under these circumstances, problems of enforcement are bound to arise because some groups of fishermen would feel disadvantaged and would not comply with the management regulations. These difficulties are of much less significance in societies such as Japan where there exists greater homogeneity and better compliance due to effective social sanctioning.

41. In countries with fairly centralized political systems, decentralization of management authority to the local level may be politically unacceptable. This may be due to several reasons, including the undesirable consequence of increasing the role of local vested interests; the need to maintain political stability through centralized credit; licensing and other regulatory policies; and centrist attitudes and behaviour on the part of politicians and bureaucrats and the readiness of local governments to deal with community-based management.

42. The three problem areas are not easily resolved and suggest that a community-based approach is only one of the possible relevant management systems for small-scale fisheries in the Asia and Pacific region.

43. In the ensuing discussion, it was noted that the attitude of fisheries administrators and decision-makers to community-based management systems differed from country to country, depending on the prevailing political, economic, social and cultural factors. An essential factor would be that a community-based approach had political and social legitimacy. This would depend, among other factors, on the group which constituted the "community". It was understood that the "community" would usually refer to the users of the fishery resources.

44. The need to find alternative employment opportunities for excessive numbers of fishermen was considered another constraint for the successful development of community-based management systems.

45. It was also noted that the absence of effective fisheries management in most countries of the region was the source of major waste and conflict, and that intensive efforts were needed to examine all possible alternatives.

## SESSION 2: WORKING GROUP DISCUSSIONS

### PANEL 1: EXCLUSIVE USE RIGHTS SYSTEMS: ADVANTAGES, DIFFICULTIES AND MECHANISMS

Discussion Leader: Chua Thia-Eng

Rapporteurs: R. Willmann and P. Martosubroto

#### *Concepts*

46. In discussing the subject matter "Exclusive use rights systems", the panel noted that community-based management is one of the management options that could improve the efficiency in the sustainable use of the fishery resources. The panel recognized that community-based management reinforces and complements the primary administrative and management functions of the government and the objectives of community-based management can only be achieved with the support and understanding of the government at central and local level. In adopting community-based management, due consideration should be given to the inter-relationship between fisheries and other non-fishery sectors and the system should preferably operate within the overall framework of integrated coastal zone management in order to minimize multiple resource use conflicts and to promote overall community development.

47. The panel then discussed the advantages of community-based management systems compared to alternative approaches such as centrally planned limited entry systems. Experiences in countries where the latter types of management approaches are implemented indicate that there are a range of drawbacks with them. These include their inflexibility, high reliance on costly centralized monitoring and surveillance, political interference, and ineffective and deficient communication between the users of the resource and the management decision-making institution. These problems would be compounded by the conditions found in most countries of Asia and the Pacific which are characterised by large numbers of widely dispersed and often remote fishing communities with poor communication and logistic infrastructure.

48. Although the above reasons indicate that local management is the preferred approach, it was noted that there are many tasks which only central or regional government entities could fulfil. These include the varied kinds of support services needed to create favourable conditions for community-based management such as the establishment of the needed legal framework and the creation of alternative employment opportunities.

49. Several critical issues were identified in the creation of community-based management systems. These include the nature and contents of exclusive fishing or use rights and their possible transferability, the charging of user fees and the related equity considerations, the selection of the users group and membership within the community; and the determination of community boundaries. The nature of community fishing rights would usually be restricted to the use rather than ownership of the resources.

50. The nature of use rights could be rather complex depending on the specific fisheries situation, and possibly also on the kinds of claims by other sectors in the coastal area. These rights would commonly be held by some kind of fishermen's organization including cooperatives, societies or associations of formal and informal users groups. There are two possible ways to allocate use rights. One way is a top-down approach where government on the basis of certain criteria determines the nature and term of the rights. The alternative, and in many instances preferred, approach is to allocate rights on the request of the fishing community or group itself. This would ensure that the rights correspond to the needs of the fishermen given the specific conditions in the fishery. At a second layer, the group or community may decide to further share fishing rights to individuals or sub-groups at its discretion.

51. In many instances, transferability of fishing rights would be unwarranted, at least for some time, to avoid concentration of user rights in the hands of a few. In certain situations, however, transferability could be desirable to allow fishermen the receipt of compensation to facilitate exit from fisheries once more profitable uses of the respective sea area develop. This could be of particular relevance in the case of tourism and certain types of industrial development. Special consideration would need to be given to transferability within the group or community which in many instances could be desirable to allow more economical fishing operations.

52. Equity considerations would suggest the need for provisions for the charging of user fees once the management scheme becomes effective and generates sizable rents. This also follows from the fact that ownership of the resource rests with the government and the society at large which should share in the resource rent. In many fisheries, the charging of user fees may be of relevance only in the medium to long term due to presently high levels of overcapitalization and excessive numbers of fishermen. In fisheries for high value species such as shrimp or lobster, however, the generation of high levels of rents could become quickly a major cause for inequity that could threaten the social acceptability of the management regime.

#### *Constraints*

53. Several constraints were identified that could impede the establishment of community-based management systems. These include the lack of competence and capabilities of the fishing communities to take on management responsibilities; the difficulties in determining boundaries between different groups or communities of users including non-fishery users, and the potential conflicts which may be created in the demarcation process; the unwillingness of politicians to make major, and possibly politically costly, distributional decisions and devolve management authority; and the already high levels of overcapitalization observed in many coastal fisheries.



### *Facilitating Conditions*

54. Several factors were identified which would facilitate the adoption of community-based exclusive use rights systems. Among the most important ones are the establishment of the needed legal framework; the facilitation of the formation of users organizations and equipping them with the required technical and scientific management know how; the establishment of arbitration and conflict resolution mechanisms; and educational work among the public at large, political decision-makers, and bilateral and multilateral financial and technical assistance agencies.

### *Guidelines*

55. A number of guidelines were formulated to promote and foster the development of community-based management systems, as follows:

- ▶ traditional and customary management systems should receive careful attention, appreciation and recognition;
- ▶ in the establishment of community-based management systems, all relevant aspects of existing customary practices need to be duly taken into account. The starting point should always be the present situation, in particular the fact that in many instances fishing communities have a perception of privileged rights over the fishing grounds in front of their communities;
- ▶ governments should avoid all measures that may weaken or break-down desirable traditional or customary management regimes;
- ▶ community-based management systems should evolve out of the initiative of the fishing communities or groups themselves and these should be closely involved in the elaboration of criteria for membership in the group and in the formulation of specific fishing rights;
- ▶ governments should facilitate the process of formation of community organizations and the development of use rights through the creation of the required legal framework; the provision of technical, scientific and financial assistance; and educational and training programmes which may best be delivered with the help of non-governmental organizations;
- ▶ governments should take appropriate actions to manage industrial fisheries in such a way that their negative interference with small-scale coastal fisheries is reduced to a minimum;
- ▶ governments should assist in the enforcement of community-based management systems, particularly with regard to non-members of the community and rely, as appropriate, on self-enforcement on the part of the community or group;
- ▶ communities entrusted with management functions should also be given responsibilities in environmental monitoring, in order to help maintain functional integrity of the ecosystems.

### *Proposals*

56. In concluding the session, the panel members considered the actions which may be taken in the short and long term to promote the development of community-based management systems. The following were given high priority:

#### Short-term

- ▶ organize regional seminars and training courses on community-based management systems for government staff, NGOs and representatives of fishermen's organizations;
- ▶ re-evaluate case studies of traditional management systems of the region from economic and political angles;
- ▶ draw lessons from the historical development of use or property rights over other resources than fisheries in the region;
- ▶ study the perceptions, attitudes and available knowledge of fishermen on the fishery resources and fishery management.

#### Medium to long-term

- ▶ test and demonstrate the advantages of community-based management systems through pilot management projects to provide working models for the adoption of such systems in the region;
- ▶ educate fishing communities about the importance of fisheries management and improve their scientific understanding;
- ▶ train fishermen in the reporting of catch statistics and accounting to improve the data base for management purposes;

### PANEL 2: THE ROLE OF COMMUNITY ORGANIZATIONS IN FISHERY MANAGEMENT

Discussion Leader: Benito Bengzon

Rapporteurs: M. Hotta, R. Pomeroy and R. Roy

57. The Panel endorses participation by fishermen in fishery management. The Panel endorses the role of community organizations in bringing about active fisherman participation in fishery management and enhancing collective actions among fishermen.

58. The involvement of community organizations in fishery management is important for several reasons, including:

- ▶ lower management and enforcement costs than national centralized programmes since a community approach produces a sense of ownership over the resource and makes the fishermen more responsible and accountable for long term sustainability of resources and for surveillance;

- ▶ the opportunity for each community to develop management systems which meet their own particular needs based on active participation by the fishermen.
59. There are several existing alternative community organizational structures for fishery management in the Asia and Pacific region. These are organizations such as the Japanese Fishery Cooperatives which have a long history and are well established and organizations with potential for fishery management, which need to be strengthened, in order to do cooperative activities.
60. The Panel agreed that most existing community/fishermen organizations in the developing world do not have the capacity to carry out fishery management. The panel agreed that there is a need to strengthen existing organizations to undertake fishery management and to look at alternatives to existing organizations; that is, to create new organizations. It should be noted that this may take time.
61. The important criteria for a successful community/fishermen organization would depend on the classification of the organization and whether it is organized by fishery (area, gear or species); by community; or by the capacity of the organization, considering the following: technical knowledge; cohesiveness; decision-making approaches; enforcement ability; legitimacy in the eyes of the members; and legitimacy in the eyes of the government.
62. The ideal characteristics of the organization should include the following:
- ▶ a clear definition of the fishery (area, gear and species)
  - ▶ a clear role to play in management
  - ▶ legitimacy to members, community and government
  - ▶ membership restricted to those actively participating
  - ▶ management capacity
  - ▶ financial capacity (self-supporting)
  - ▶ surveillance capacity or ability to undertake some enforcement aspects
  - ▶ conflict resolution capacity
  - ▶ its multiple function role (in addition to fishing management, some other activities may be necessary).
63. The legitimacy of a community/fishermen organization is dependent on how representative it is, how creditable it is and how accountable it is. These criteria must be viewed in the eyes of the members, the community and the government.
64. There must be a linkage between the organization and the government at some level to ensure success. This may be accomplished through financial, technical assistance, open dialogue and management.

65. The fishery management strategy to be implemented by the fishermen organizations must be based on a sound plan with stated goals and objectives for the fishery. This plan can serve as the linkage between the organization and the governments. The plan should be developed in close collaboration between the members of the organization and the government. The plan should be endorsed with statutory backing.

66. Fishermen's organizations (FOs) in the Asia and Pacific region are mainly involved in economic activities and seldom undertake the responsibility for managing fisheries. In their economic undertakings, there have been, however, many failures to create and sustain viable FOs. Under the present circumstances, it seems that most FOs do not have the capacity to accommodate an additional responsibility of dealing with management tasks, due to the lack of experience and talents in their fields. Panel 2 examined the following two situations:

1. Existing organizations where there is a need to identify the conditions to be met for their strengthening to accommodate the management responsibilities;
2. The need to identify alternative organizational set-ups and technical methods when it is premature to devolve management authority to the existing FOs.

#### *Existing organizations*

67. Under Item 1 the Panel attempted to identify various pre-requisites for FOs to be able to undertake fishery management responsibilities.

1. Legal support: In order to get involved in fisheries management, the community/fishermen organization needs legitimacy with appropriate legislation that devolves the power to manage.
2. Membership of FOs: All persons involved in fishery related activities which will be managed should belong to the organization. Membership in the organization will vary depending upon the type of fishery being managed.
3. Social viability: Homogeneity is not necessarily the most important element for FOs to achieve their social viability. Membership in the FO should include those with common interests and objectives.
4. Economic viability: Economic viability of FOs is essential to acquire the confidence of fishermen toward the FO. The FO must be economically self-reliant and self-maintaining by getting involved in activities which generate its own funds.
5. Fishermen's Initiative: The FO must be participatory and involve all members in planning, implementation and evaluation. An environment must be established and maintained where the members of the FO feel easy to take initiatives. The members should be given the opportunity to develop their own rules and patterns of organization tailored to local conditions.
6. Linkages with existing functions of FOs: It is necessary to establish linkages between fisheries management and existing activities of the FOs, particularly

marketing, credit, education programmes and economic development in order to increase the impact of fishery management programmes.

7. Government role: The Government must establish the legislative basis for FOs and fishery management. The Government should provide guidance and advice in fishery management. It should provide financial and technical assistance, as necessary.

#### *Alternative organizations*

68. Under Item 2 on alternative methods, the Panel noted that if an existing FO does not have the capability to develop community-based fishery management systems, it will be necessary to enable and mobilize new organizations for that purpose. This should be done in a step-by-step approach involving first the local government and then the villages. It will be necessary to develop awareness building as to the purposes of fishery management. It should be noted that the time scale to develop this organizational structure for fishery management may be long. The government may not always be the appropriate institution to develop an organization for fishery management due to the lack of legitimacy in the eyes of the community. As such, other institutions such as NGOs may be more appropriate to establish the FO. The government, however, should still be consulted in the establishment of an FO. Possibilities should be sought to devolve management responsibilities to successful FOs which wish to undertake such functions.

69. It may be possible in some cases to enhance fishermen's participation in fishery management through development of appropriate technologies such as artificial reefs. Fishermen may participate in their construction, placement and surveillance. Through such collective action, they may proceed to forming a fishermen's group or organization. Once some form of physical structure such as an artificial reef is established which brings the fishermen together, the next step would be to identify the legal, organizational and administrative conditions that promote effective management.

70. The panel agreed on the following goals and proposals for action: The promotion of fishermen's participation in fishery management can be operationalized if certain conditions are met, namely:

1. Awareness should exist of the benefits of using participatory approaches in fishery management among policy and decision-makers, together with the fishermen.
2. The legal and policy environment existing in the country should be favourable to the participatory, self-help initiatives of the fishermen.
3. The self-management capacities of FOs must be sufficient to sustain such initiatives.

71. In order to meet the above conditions, the following action could be taken at government, community and development agency level:

*Increased awareness*

1. For Government and Community

- a. Create greater awareness among government officials and the target population of the benefits of adopting participatory approaches to increase the sustainability of coastal fisheries.
- b. Establish clear government policies and regulations, and train government officials in the principles, practices and benefits of fishermen's participation in fishery management.
- c. Establish smooth communication between government staff and FOs in the promotion of fishermen's participation in fishery management and in sharing of knowledge and skills.

2. For Development and Funding Agencies

- a. Assist governments in sensitizing decision-makers to the merits and value of using more participatory approaches in fishery management;
- b. Conduct case studies and research on the effectiveness of participatory approaches in fishery management for sustainable coastal and inland fisheries.
- c. Integrate the element of fishermen's participation in fishery management into relevant development programmes and projects.
- d. Collect and disseminate information materials on examples of fishermen's participation in fishery management, approaches adopted and performance and benefits.

*Improved legal and policy environment*

1. For Government and Community

- a. Establish clear government policies and regulations that favour fishermen's participation in fishery management and encourage the creation and strengthening of FOs.
- b. Introduce and enforce policies and legal and structural reforms (e.g., water-use rights) which promote more equitable access to resources and services for small-scale fishermen through FOs.
- c. Enact or amend laws to ensure that FOs are charged with responsibility for planning and implementing measures.

- d. Reinforce or, where necessary, promote local institutions or community organizations to promote and facilitate democratic participation of fishermen in fishery management.
2. For Development and Funding Agencies
    - a. Encourage and assist governments in establishing a legal framework to provide for a fishery management component in the functions of FOs.
    - b. Promote the introduction and implementation of policies and of legal and structural reforms and offer fishermen more equitable access to resources.
    - c. Assist governments in the design and implementation of improved policies and incentives relating to fishery management with the involvement of fishermen, encouraging greater participation by fishermen in fishery management.

*Improved self management capacity*

1. For Governments
    - a. Introduce policies to facilitate the transformation of government-sponsored FOs into self-reliant, member-controlled and financially autonomous organizations.
    - b. Strengthen training programmes for leaders, managers and members of FOs in order to reinforce technical capacities in fishery management.
    - c. Strengthen self-reliance capacities in activities other than fishery management, such as marketing, supplies, credit and educational activities.
  2. For Development and Funding Agencies
    - a. Advise governments and FOs on the design and implementation of long-term strategies for the gradual transformation of government-sponsored and financed fishermen's organizations into self-reliant, member-controlled and member-financed organizations.
    - b. Assist governments and FOs in building the internal capacity of FOs in fishery management through training programmes. Assistance should also be provided to achieve self-help, self-management capacities of FOs leadership as well as membership through training.
72. The panel agreed on follow-up project ideas:
1. Regional study of fishermen organizations and their capacity to undertake fishery resource management.

2. Review of success stories of community-based management in coastal fisheries and other sectors.
3. Regional/national workshops to promote community-based management among policymakers.
4. Pilot projects at national level of community organization and community-based management.
5. Review of indigenous knowledge of fishermen of resource management.
6. Use of media for awareness building in communities for fishery management using brochures or newsletters, radio, etc.
7. Review of guidelines/checklist for community-based management and community organizations.
8. Review of legal documentation for governments to undertake community-based management.
9. Review of institutional restructuring for community-based management.
10. Workshops to train on community-based management and community organization for fishery management.

### PANEL 3: SUPPORTIVE MEASURES FOR COASTAL FISHERIES MANAGEMENT

Discussion leader: Anton Atapattu

Rapporteurs: D. Douman and E. Ruckes

#### *Issues*

73. In the experience of countries in the region, the active participation of fishing communities enhances coastal fisheries management. Although national governments have their own rules and legislation, a participatory approach to management ensures that the interests of fishing communities are fully represented. The most appropriate means to involve fishermen in the management process is through groups. Moreover, it is important to note that since coastal fishery problems are location-specific legislation should be flexible to accommodate conditions in different fisheries.
74. Management systems should be based on scientific advice and countries should attempt to build up a capacity in relevant subjects, including biology and socio-economics. Fishermen should be motivated to provide accurate information to researchers in return for scientific advice. R&D should be given priority and research should be of an applied nature. Stock assessment and the ongoing monitoring of resources is critical to management.
75. In order to reduce effort in coastal fisheries, the relocation or redeployment of fishermen is necessary. Fishermen may be relocated into other fisheries, aquaculture or alternative activities. The Malaysian experience has shown that it is possible to successfully



redeploy fishermen in their home areas by strengthening village-based tourist development. In Malaysia, former fishermen are now involved in providing hospitality and transport services to tourists who visit marine parks. The physical relocation of fishermen may be less successful and more costly than the redeployment of fishermen in their home areas. The latter approach involves training and possibly the provision of incentives including credit for individuals with entrepreneurial skills. In certain cases, it may be possible to avoid relocation of fishermen by instituting effective law enforcement (e.g., by preventing poaching of resources by commercial fishermen to the detriment of small-scale fishermen).

76. The establishment of marine parks, sanctuaries and fishing reserves may be beneficial from the point of view of the creation of alternative employment and stock enhancement.

77. Credit and financial incentives may be an important tool to strengthen fisheries management schemes, in particular to provide for activities that support the relocation of fishermen and the development of activities other than fishing in coastal areas.

78. The Japanese example has shown that marketing is extensively used to ensure the success of management schemes in particular the participation of fishermen therein. However, its role might be much reduced in other countries because of the marketing activity being a private sector activity and direct government participation was not considered desirable. Nevertheless, improvement of marketing systems, e.g., in relation to fish handling and preservation, marketing information, would be desirable.

79. Awareness generation, extension and the acquisition of information is vitally important for the successful implementation of community-based fishery management systems. Education at all levels, particularly in the administration and at the political level, is necessary.

80. Appropriate policy and legislation for environmental protection is necessary in order to avoid degradation. It should also be recognized that fisheries are competing in the coastal areas with other industries which would make complete avoidance of environmental degradation unrealistic. However, every effort should be made to ensure that the impacts of this degradation are minimized.

#### *Constraints*

81. Legislators may not be sufficiently aware of the necessity to change legal philosophy from one of open access to fisheries to limited entry so as to improve management. Weak enforcement of legislation erodes the effectiveness of management in some countries. In addition, where management has been decentralized from the national level, further preparation of local governments and fishermen is required in order to ensure that it is possible for these groups to fulfil devolved responsibilities.

82. With respect to research, universities may not be well informed about the applied research requirements, though it is recognized that academic institutions should be involved in fundamental research. Moreover, governments are sometimes poorly placed to advise fishermen on aspects of management because of a lack of scientific information.

83. A lack of alternative employment opportunities will constrain the extent to which fishermen can be relocated or redeployed.

84. Where artificial reefs are established in connection with marine parks, sanctuaries and fishing reserves, significant costs may be incurred.

85. Although the currently weak position of fishermen in the marketing process in many countries prevents them from securing adequate incomes, direct participation of fishermen in marketing operations was difficult to achieve. Public fish marketing companies have not been successful in a number of countries.

86. Awareness generation and extension may be inhibited by a lack of information concerning management requirements and poorly functioning information channels.

87. Despite the international prominence of environmental issues, the level of adequate attention to fisheries has not yet been achieved. For example, pollution from industrial wastes, aquaculture and the logging of mangroves persist in some countries.

#### *Guidelines and Principles*

▶ With due consideration to national conditions, devolution of management authority should be phased and legislation enacted in order to ensure a smooth transfer of responsibility and the building up of local management capacity. In this process, attention should be paid to appropriate legal principles and adequate enforcement measures.

▶ Countries should endeavour to strengthen their national scientific capabilities for management purposes.

▶ The relocation and redeployment of fishermen will involve the identification of alternative employment opportunities and carefully designed training programmes. In addition, incentives and the provision of credit may also be necessary.

▶ In establishing marine parks, sanctuaries and fishing reserves, fishermen affected by their establishment should be fully consulted in advance. Furthermore, efforts should be made to ensure that these fishermen benefit from the establishment of these facilities and that effective enforcement measures are employed to safeguard resources. With respect to artificial reefs and stock enhancement, fishermen should be closely involved at an early stage. The economics of the establishment of artificial reefs need to be carefully studied and initially it may be advisable to focus on enhancement programmes involving sedentary species.

▶ Credit and financial incentives provided should be selective and tightly supervised. In addition, an integrated approach should be applied so that these facilities are not limited to fishing activities.

▶ Marketing should continue to be basically a private sector operation although governments should actively promote improvements in post-harvest operations and support services such as information.

▶ Substantive efforts should be made by fisheries managers to provide information concerning fisheries management needs and to create an awareness at all levels.

- ▶ International technical cooperation should be promoted in the area of environmental protection. There are indications that some donors may be inclined to favourably consider requests for technical financial assistance.

#### *Project Proposals for Follow-up*

88. In view of the limited funding available immediately, the Panel did not consider it appropriate to elaborate country projects. Therefore, preferably follow-up seminars, study tours, or studies might be organized. These activities might include seminars and exchange visits for leaders of fishermen groups and legislators. Small studies which could serve as input for later projects might be undertaken. These might include comparisons of past and present management schemes in selected areas.

89. With regard to a medium-term programme, the best approach was considered the organization of pilot or model projects to identify suitable approaches for implementation of community-based fisheries management, which should include also other activities related to environmental enhancement. A period of ten years should be considered for these activities to achieve a real impact.

### **SESSION 3: CRITERIA, GUIDELINES AND RECOMMENDATIONS**

Chairman: N. Kojima

Rapporteurs: E. Ruckes and R. Roy

90. The Discussion Leaders of the Panels presented the respective reports which were endorsed with minor modifications. The Chairman, in summing up the discussion, pointed out that community-based fishery resource management was a complex subject affected by many factors and aspects, several of which were location- and country-specific in nature. The discussions at the Consultation endorsed the fact that community-based fishery resource management has potential and, given its advantages, needs to be considered. The key to the feasibility and success of such efforts would be to evolve flexible approaches which meet both local and country-specific conditions and needs.

91. He went on to summarize the presentations of the panels which had covered the characteristics of community-based organizations necessary to enable them to take on the responsibility of fishery resource management, identified constraints and suggested the various roles that would have to be played by central, provincial and local governments as well as fishermen themselves to facilitate such efforts and lastly, summarized the necessary supportive measures such as marketing, credit availability, environment protection, training, restocking, and artificial reefs that should facilitate community-based fishery resource management.

92. A central theme that emerged was that the success and acceptance of community-based fishery resource management approaches would depend upon awareness on the need for and the approaches to community-based fishery resource management at all levels ranging from ministerial to fishermen.

93. Finally, the Chairman concluded that several interesting and worthwhile proposals had been made to follow-up on the recommendations of the meeting, some of which could be financed by the remaining funds of the present. They could constitute a preparatory phase to a large programme with a series of pilot projects which could be considered for support by various donor agencies. In this connection, it was noted with satisfaction that participating donor agencies indicated the possibility of supporting such projects. The UNDP participant informed the meeting that an integrated coastal fishery resources development project was recently signed by UNDP and FAO, which should complement the proposed programme.

94. During the preparatory phase special studies; preparation of manuals and awareness building materials; and workshops and study tours could be implemented. In particular, mention was made of studies of community level fishery organizations in the region in terms of their capacity to carry fishery resource management activities; studies to identify criteria which would determine site locations where pilot exercises could be implemented; development of methodology to undertake rapid appraisals of community fishery resources; consultations with fishery agencies, policymakers and fishermen on the outcome of this meeting; and on developing case studies of successes in community-based fisheries resource management.

95. The long-term programme would consist of a network of national pilot projects which would implement integrated community-based fisheries resource management. Successful ones could be replicated. The Expert Consultation requested the FAO to follow-up on these recommendations and suggested that programme and projects be developed in consultation with the participants, donors and other concerned agencies in order that the momentum developed at the meeting would not be lost and a concrete programme would emerge in the near future.

#### **ADOPTION OF REPORT AND CLOSE OF CONSULTATION**

96. The report of the Consultation was adopted on 12 June 1992.

97. Prior to the closure of the Consultation Mr B.F. Dada made a speech in which he highlighted aspects of the Consultation and thanked the Japanese Government, the Hyogo Prefectural Government and the Kobe Municipal Office for support. The Vice-Chairman, Mr B.Q. Bengzon, speaking on behalf of experts at the Consultation, thanked the Government of Japan and FAO. He noted that the Consultation had enabled participants to gain a better understanding of community-based fishery management and indicated that this approach to management would be implemented in the Philippines. Finally, Chairman Nagasaki also thanked the experts for their participation, FAO, organizations involved in mounting the Consultation and the interpreters. He then declared the Consultation closed.

APPENDIX A

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## APPENDIX B

### PROSPECTUS

#### 1. Background

Fisheries in most developing countries in Asia and the Pacific are characterized by an increasing trend in fish production but decreasing trends in the abundance of many fish stocks. During the last decade, fishing effort has continued to expand and the threatened depletion of the exploited inshore stocks has caused the persistent high incidence of poverty among artisanal fishermen. In addition, a wide range of related problems have emerged along with the intensified fishing efforts. These include coastal population pressure, environmental degradation, the use of destructive fishing methods, the destruction of mangrove zones and reefs, and other environmental stresses. Conflicts between small-scale fishermen and other commercial fishermen for the exploitation of coastal resources have increased.

The objectives of fishery management are to make optimum economic and social use of fishery resources and to prevent their over-exploitation. A wide range of measures have been applied for fishery management purposes, which include controls over fishing efforts and fishing capacity; area and seasonal closures; mesh size regulations; catch quotas; and the allocation of exclusive use rights. These measures aim at the prevention of economic waste, at the protection of the resources from over-exploitation and at the sustainable development of the fishery sector. To date, however, effective fishery management has rarely been carried out in developing countries in the region.

Development models adopted by most developing countries have been based largely on centralized planning and management concepts and decentralization of management bodies has as yet not been realized. Greater efforts should be made to introduce and encourage a community-based management approach which would reduce government administrative costs and have the potential to utilize local knowledge and expertise, thus responding to the need of the community and being acceptable to the resource users. The decentralized management approach would also contribute to fostering self-confidence and self-reliance at the local level. The core concept of such an approach is that fishermen will assume a leadership role which will involve decentralized decision-making and would bring about a stronger commitment to observe regulatory measures. In the light of the scarcity of human and financial resources in developing countries' fisheries administration, the merits of community-based management systems with the involvement of local communities, NGOs (e.g. fishermen's organizations) and private sectors should draw more attention.

#### 2. Scope and Purpose

The Expert Consultation will focus not only on technical and institutional problems of present fisheries management in coastal waters but also on the strategies for action and tools to achieve sustainable artisanal fisheries and community development through the promotion of community-based management systems and their specific components. The scope will be limited to coastal capture fisheries, aquaculture and inland fisheries, although off-shore fisheries and closely-related aspects of agriculture (e.g. dams) and forestry will be addressed insofar as they are of direct relevance to the subject of the Consultation. Problems and experiences of developed countries of the region in achieving the sustainability of

artisanal fisheries should be scrutinized as to their usefulness in the search for sustainable artisanal fisheries in developing countries.

The purposes of the Consultation are:

- (i) To review the present policies and legislation for coastal fisheries management of participating countries, including the experiences of fishermen's organizations in fishery management tasks;
- (ii) To identify critical issues that facilitate community-based fishery management which may include new legal arrangements, adoption of proper institutions, etc.;
- (iii) To review the requirements for the planning process and implementation phase of decentralized management measures at national, state and local levels, and define the role and responsibilities of the entities involved in the field of plan preparation, monitoring, control, surveillance and finance;
- (iv) To examine possible strategic options and the various ways and means of achieving sustainability of artisanal fisheries including decentralized management systems, the methods for adjusting the rate of fishing, the investments at the desired levels, etc.;
- (v) To develop guiding principles and propose specific action which can lead to sustainable forms of artisanal fisheries and rural fishing communities development.

The Consultation will also discuss the objectives and programmes of the Second Phase of the Project GCP/RAS/138/JPN "Development of Community-based Coastal Fishery Management Systems for Asia and the Pacific" and examine project ideas/proposals submitted by the participating countries for possible implementation.

In this context, the Consultation will address four main topics.

- (1) Country experience of community-based fishery management;
- (2) Elements necessary for effective fishery management through decentralization by devolving more decision-making authority and responsibility to the local level;
- (3) Sustainable development in fishing communities through effective community-based management systems and supportive measures;
- (4) Preparation of guidelines and specific action to be taken at local, national and international levels to develop community-based fishery management systems.

The Consultation will discuss four main topics outlined above in plenary session during the first two and a half days, after which a series of parallel working group meetings will be held to discuss specific problems. The Consultation will then reconvene in plenary for discussion and adoption of the Strategy and Action Plan.

### **3. Venue**

The Consultation will be held at the Kobe International Conference Centre, Japan from 8 to 12 June 1992.

### **4. Languages**

The official languages of the Consultation will be English and Japanese.

### **5. Participation**

The participants will attend the Consultation in their personal capacity. The Japanese Government will cover the travel expenses of the participants from developing countries through the Japanese Trust Fund. Experts will also be invited from international and regional organizations including INGOs concerned in their personal capacity.

### **6. Follow-up to the Consultation**

The follow-up action will be taken on the basis of the recommendations made at the Consultation. The Japanese Trust Fund project has allocated funds for immediate follow-up of the recommendations at the country level. It is, therefore, encouraged that participants will present project ideas or proposals relevant to the subjects discussed at the Consultation. Activities may include advisory services, feasibility studies, workshops, seminars and training courses.

### **7. Preparation of Documents**

The process of documents preparation is coordinated by the Fishery Policy and Planning Division of the FAO Fisheries Department. The preparation of the documents has been assigned to focal points within the main units of the Department, the Bay of Bengal Project (BOBP), the experts to be invited and to consultants.

The documentation includes the principal documents on the five major topics of the Consultation, experience papers (prepared by FAO staff members), case studies (prepared by the participants, the Bay of Bengal Project and the Japanese governmental institutions).

### **8. Instructions for the Preparation of Documents**

Contributors to the Consultation are requested to follow closely the instructions outlined below, and thus avoid delay in the reproduction of the papers for pre-meeting distribution. Each contribution must be submitted in duplicate in English.

#### Title of Manuscripts

The titles must be followed by the name of the author and name of the place of the author's institution.

### Format

Manuscripts should be typed in double spacing on one side of heavy paper, about the same size as that used for this Prospectus (21 x 29 cm). Chapter headings should be designated by capital letters; section and sub-section headings should be in lower case with initial capitals, the former being underlined. Ample margins should be left at top, bottom and both sides of each sheet. The sheets should be numbered consecutively. The first page should be the title page, and the second the table of contents. The text of the paper should begin from the third page onward.

### Tables

Unless sufficiently small to be inserted in the text, tables should be set out on separate sheets of the same size as those used for the text, numbered consecutively with Roman numerals and referred to throughout the text as "Table I", etc. Each table must have a title and, where necessary, a descriptive legend.

### Footnotes

These must be numbered consecutively and each one typed in the text at the place to which it refers, within horizontal lines.

### Bibliographic References

These should be as follows:

Books and monographs:

ONDAM, B., Four Thai fishing communities: livelihood and pro-1977  
blems. In Small-scale fisheries development social science contribution, edited by  
B. Lockwood and K. Ruddle. Honolulu, East-West Center, pp.75-85.

Periodicals or series:

The rules are the same as for books and monographs, except that the place of publication and the publisher's name are omitted. After the title of the paper in its original language, quote name of periodical or serial (abbreviated according to the rules of the "World List of Scientific Periodicals", London, Butterworths) and underline (comma); volume number in Arabic numerals, number of issue in parenthesis (colon); page from - to. If there are two or three authors, enter first author's name followed by his initials and then the second author's name followed by his initials and the third author's name followed by his initials. If there are more than three authors, enter first author's name, followed by his initials and followed by et al. Only the first word of the title of a publication and proper names are given capital initials. If correct abbreviation of periodical is unknown, quote full title of periodical.

Example:

**JACKSON, G.A., D.E. JAMES, AND W.J. NORTH,** Submitted Morpho-1985  
logical relationships among fronds of giant kelp, *Macrocystis pyrifera*, off La Jolla,  
California, *Mar.Ecol.(Prog.Ser.)*, 26(3):261-70.

Literature citations in the text should be made by quoting author's surname followed in parenthesis by date of publication, e.g. Moorjani (1960), Olley and Thrower (1976), etc.

#### Text-figures and Photographs

Make separate pages for text-figures and photographs. Each should carry a legend clearly typed or written on the back, together with the title of the contribution and name of the author. They should be limited to the minimum necessary to clarify the text. Text-figures and photographs should be numbered consecutively with Arabic numbers, and referred to throughout the text as "Fig.1", etc. There should be reference in the text to figures and these should be carefully checked for consistency. They must not be so large that they need to be reduced to less than one third of their original size. All drawings, charts, maps and diagrams should be prepared in waterproof Indian ink on high-quality paper or tracing cloth. Graph paper must have blue or faint grey rulings. No erasures should be made. Thickness of lines should be judged remembering the size to which they will be reduced for publication; they should be heavy enough yet not so heavy that they overweigh the printed page. Lettering should be done in capitals and in Roman form only. The coordinates of graphs must be carefully defined, labelled and their units identified. Photographs should be sharp and on glossy or smooth paper.

#### Measurements and Quantities

All quantities should be given in numerals (not words) and must be in the units of the metric system.

#### Scientific Names

These should be carefully checked for correct spelling and those below the level of family underlined. The full common and scientific names must be given for each species when it is first referred to.

#### Abstracts

Each paper must also be accompanied by its abstract not exceeding 200 words typed on a separate page, at the head of which should be given the title of the paper, the author's name and the name and address of his/her institution.

Submission

Papers should be submitted in their final form by 31 December 1991 to:

Dr. Masamichi Hotta  
Technical Secretary  
Expert Consultation on the Development of Community-based Coastal Fishery  
Management Systems for Asia and the Pacific  
Fishery Policy and Planning Division  
Fisheries Department, FAO  
Via delle Terme di Caracalla  
00100, Rome, Italy

Telephone: 57971  
5797-6390 (direct)  
Telex: 610181 FAO I  
Cable: FOODAGRI ROME  
Facsimile: (039) 6-57976500

## **ARRANGEMENT FOR THE EXPERT CONSULTATION**

### **Date and place**

The Expert Consultation on the Development of Community-based Coastal Fishery Management Systems for Asia and the Pacific will be held in Kobe, Japan from 8 to 12 June 1992. It will take place at:

International Conference Centre (ICC), Kobe, 6-9-1, Minatojima, Nakamachi, Chuo-ku, Kobe 650, Japan

Telephone: (078) 302-5200

Facsimile: (078) 302-6485

The ICC Kobe is located in Port Island which is an artificial island having international conference centres, an exhibition hall, multipurpose halls, hotels, museums, galleries and other facilities and functions.

### **Travel to and from Kobe**

International participants are advised to travel via Osaka (Osaka International Airport) and take a shuttle bus from the airport direct to Hotel Port Pia. Travel takes about 50 to 60 minutes. Taxis are also available with the fare of about Yen 10,000 (US\$ 80). From Tokyo it takes about 3 hours and 20 minutes by Hikari Shinkansen (bullet train) to reach Kobe Station. If travelling this way, it is recommended to take a taxi from the station to Port Pia Hotel.

### **Study Tours**

On 13 and 14 June study tours will be organized to visit fisheries cooperatives, fish farming centres and the prefectural fisheries research stations in Hyogo Prefecture. Sightseeing tours to Himeji-jo castle and Kyoto city will also be arranged.

### **Registration and opening ceremony**

Registration and issuance of identity cards will start at 8:00 a.m. on Monday 8 June 1992 in the entrance hall of the conference room on the third floor of the International Conference Center (ICC). The opening ceremony will be held at 9:30 a.m. on the same day.

### **Hotel reservation**

Hotel accommodation has been reserved at Hotel Port Pia. The discount rate for a single room for participants is JY 15,500 and for a twin room JY 13,500 per person.

### **Visa and vaccination requirements**

Participants should enquire about visa and vaccination requirements with the Japanese Embassy or Consulate in their home country. Participants are individually responsible for obtaining visas, etc.

### Currency

In Japanese currency there are three notes: 10,000, 5,000 and 1,000; and six coins: 500, 100, 50, 10, 5 and 1. Exchange rates for the Japanese Yen fluctuate against the US Dollar and EEC currencies. On 31 January 1992 the rate of exchange was US\$ 1 = JY 125; there are no restrictions on importing or exporting currency.

### Climate

The weather in Kobe in June is warm and rainy, and quite variable. Bright clear days can be followed by rainy spells. Average day-time temperature is about 23°C (or 73°F).

### Banks

Banking hours are from 09:00 a.m. to 15:00 p.m., Monday through Friday. Hotels will also change travellers cheques and notes but at rates below the official ones. Major credit cards are accepted in most hotels, shops and restaurants.

### Business hours of shops and offices

Shopping hours are generally from 10:00 a.m. to 18:00 p.m. On Sunday shops close but department stores stay open from 10:00 a.m. till 18:00 p.m.

### Communication

Telephone, telex and facsimile facilities will be available in the ICC. Official and personal mail, cable, telex and facsimile messages that you may wish to receive while at the Consultation should be addressed to:

c/o FAO/Japan Expert Consultation 6-9-1, Minatojima, Nakamachi, International Conference Centre Kobe, Kobe 650, Chuoku, Japan.

Telephone: (078) 302 - 5200  
(078) 302 - 6485

### Local transportation

Hotel Port Pia is conveniently located within walking distance from the ICC. Shopping centres in Kobe City are easily accessible from Hotel Port Pia by taxis and an effective network of public transport - Port Liner or bus. Participants who wish to travel in Japan at their own expense after the Consultation may contact the Japanese Travel Bureau (JTB) information desk which will be open from 10:00 a.m. to 16:00 p.m. during the week of the Consultation on the third floor of the ICC.



APPENDIX C

PROVISIONAL AGENDA AND TIMETABLE

Relevant  
document

MONDAY 8 JUNE

Morning

0800 Registration at the International Conference Centre, Kobe

0930 **Plenary**

The Consultation will be opened with a welcome address by the Director-General of the Fisheries Agency of the Japanese Ministry of Agriculture, Forestry and Fisheries. Statements by representatives from various Japanese agencies and organizations will follow. The Assistant Director-General of the FAO Fisheries Department will then address the Consultation.

1030 **Election of Officers**

The Consultation is required to elect a Chairman and a Vice-Chairman for the Consultation.

**Adoption of the Agenda and arrangements for the Session**

Procedural.

1100 **Session 1.** Experiences in community-based fisheries management and identification of critical issues that facilitate participatory approaches in fishery management.

*Item 1: Management approaches by type of fisheries and aquaculture (e.g. coastal finfish, crustaceans, shellfish, seaweeds, coral, etc.).*

Exp. 1-25  
CSR 1-13  
Sp. 2, 4, 6

After a brief introductory remark by the Discussion Leader, national experts will outline the experiences of community-based management approaches, relevant government policies and strategies, on-going projects and programmes including those supported by international agencies, and identify major problems and constraints.

**Relevant  
Document**

Discussion will centre on the characteristics and merits of management measures, assessing accomplishments and shortcomings, and exploring the reasons for success and failure.

**Afternoon**

1400            **Session 1, Item 1** (continued).

**TUESDAY 9 JUNE**

**Morning**

0900            **Session 1, Item 1** (continued).

**Afternoon**

1400            *Session 1, Item 2: Identification of technical, economic, social and institutional problems and constraints which impede decentralization of management responsibilities to the local level.*            Sp. 1, 2, 4  
Exp. 15, 16, 18,  
20,22, 23  
CSR 9

The Discussion Leader will summarize problematic areas in community-based management planning and implementation, and identify prerequisites for decentralized management systems. Discussions will cover critical issues such as base-line data and information needs at community level; the current legal and institutional framework; the extent of management authority to be delegated to the local level and ensuing legal changes; administrative procedures and technical capabilities required; awareness and motivation generation for increasing the involvement of target groups in planning, implementation and surveillance; the role of government, etc.

**WEDNESDAY 10 JUNE**

**Morning**

0900            **Session 1, Item 2** (continued).

**Afternoon Session 2: Working Group Discussion**

1400

**Panel 1: Exclusive use right systems: advantages, difficulties and mechanisms.**

Exp. 1-13, 15,  
23  
Sp. 7  
CSR 5  
Inf. 9, 14, 15

This Panel will discuss (i) the concepts, potential advantages, e.g. economic efficiency in resource use and the benefits accruing to fishermen, as well as conflicts likely to occur from the inequity caused by jurisdictional boundaries; (ii) legal backup, institutional framework, the role of the public sector and the coordination mechanisms for the solution of conflicts at the inter-community and regional levels; (iii) socio-cultural and institutional difficulties in relation to enforcement and transferability of resource use rights, and the potential role of rural communities organizations; and (iv) provide guidelines for developing exclusive use right systems.

**Panel 2: The role of rural community organizations in fishery management.**

Exp. 1-15  
Sp. 2, 11  
CSR. 2, 5  
Inf. 10, 17

This Panel will (i) examine ways and means of promoting participatory approaches in resource management, with particular reference to strengthening community organizations and other forms of cooperation and the sharing of responsibilities between government and such organizations; (ii) identify the basic requirements for community organizations to undertake management responsibilities and reinforce linkages between management functions and economic activities; (iii) debate the level of community perception and awareness generation, enforcement by resource users, provision of incentives and resources for initiatives taken by local communities; (iv) identify alternative management options if the existing organizations are not suitable; (v) provide a basis for formulating guidelines and action plans for enhancing the role of community organizations in resource management.

**Relevant  
Document**

*Panel 3: Supportive measures for coastal fisheries management.*

Sp. 3, 8  
CSR 1, 2, 5, 11,  
14  
Inf. 12

The need for strengthening supportive measures to fishery management in order to maintain the sustainability of artisanal fisheries and rural communities will be discussed. Integrated approaches may be considered in this context. The Panel will (i) discuss major requirements at national level, for enhancing the productivity of coastal and inland waters through such measures as restocking, infrastructure, fish aggregation devices, marine parks, regulatory measures for sport fishing, etc. while protecting the environment; (ii) examine the suitability of complementary measures such as fishermen relocation programmes, creation of alternative employment opportunities, human resource development, and the role of marketing and credit in support of fishery management; and (iii) recommend guidelines and actions plans for integrated approaches in fishery management entailing such components as establishment of disciplines in fishing grounds, production and marketing control.

**THURSDAY 11 JUNE**

Morning

0900      **Session 2: (continued).**

Afternoon

1400      **Plenary (conclusion)**

*Session 3: Criteria guidelines and recommendations.*

Exp. 17  
Sp. 9, 10

This Session will consider sets of guidelines and recommendations presented by discussion leaders of each Working Group which may include conditions that facilitate the introduction of community-based management measures, strategies and methods. Particular attention will be paid to the inclusion of conservation and environmental protection measures as an integral part of community development programmes. The Session will identify priority areas and programmes to be implemented in the

**Relevant  
Document**

second phase of the Project GCP/RAS/138/JPN and examine project ideas and proposals previously submitted by participating countries.

**FRIDAY 12 JUNE**

**Morning**

0900            **Session 3: (continued).**

**Afternoon**

1500            **Adoption of the Report.**

**NOTE:**        **Field trips will be arranged to visit fisheries cooperatives and fish farming centres in Hyogo and Kyoto Prefectures on 13 and 14 June.**

APPENDIX D

LIST OF DOCUMENTS

EXPERIENCE PAPERS

<b>Document No</b>	<b>Title</b>	<b>Author</b>
FI:CCFM/92/Exp.1	Snapper fishing by rotation	Ose Red Snapper Fishery Council Yamagata Pref. Japan
FI:CCFM/92/Exp.2	A collective fishing operation for reef angling fisheries	Mugi Higashi Fisheries Coop. Tokushima Pref.
FI:CCFM/92/Exp.3	Management of stardust shrimp fishery in the Suruga Bay	Stardust Shrimp Fishery Mngt Coop. Shizuoka Prefecture
FI:CCFM/92/Exp.4	Resource management through propagation and restocking programmes	Iwami Fishermen's Coop. Hyogo Pref.
FI:CCFM/92/Exp.5	A pool account system in lobster management	Katsuura fishermen's Coop. Wakayama Pref.
FI:CCFM/92/Exp.6	Management of clam fishery in Lake Hamana	Hamana Fisheries Coop. Shizuoka Prefecture
FI:CCFM/92/Exp.7	The management of a fishery for abalone	Abe Fisheries Coop. Tokushima Pref.
FI:CCFM/92/Exp.8	Management issues in a dredge net fishery for clams	Common Fishing Rights Union of Kashimanada, Ibaraki Prefecture

FI:CCFM/92/Exp.9	Catch and effort restrictions as marketing and management tools in Mantis shrimp fishery	Shiba Fisheries Coop. Kanagawa Prefecture
FI:CCFM/92/Exp.10	Joint management of the scallop fishery in Nemuro Bay	Nekaikyo No. 29 Committee for Joint TURFs, Hokkaido
FI:CCFM/92/Exp.11	The management of yellowtail culture	Kobe Fisheries Cooperative, Nagasaki Pref.
FI:CCFM/92/Exp.12	A movement to promote integrated fishery management	Kagawa Fisheries Development Thinking Society, Shikoku Island
FI:CCFM/92/Exp.13	An analysis of case studies on Japanese experience in coastal fishery management	M. Hotta
FI:CCFM/92/Exp.14	Coastal resources management in Panguil Bay, Philippines	B.Q. Bengzon/ B.S. Francisco
FI:CCFM/92/Exp.15	Community management of marine resources in the Maluku Islands	Ch. Zerner
FI:CCFM/92/Exp.16	Enhancement, efficiency and equity Turfs: Experiences in management	F.T. Christy
FI:CCFM/92/Exp.17	Bank experience in coastal resource rehabilitation and management in the Philippines	Asian Development Bank
FI:CCFM/92/Exp.18	New Zealand's individual transferable quota systems for fisheries management	I.N. Clark
FI:CCFM/92/Exp.19	Problems relating to coastal resources management systems with specific reference to the Philippines	K. Inoue
FI:CCFM/92/Exp.20	Papua New Guinea: searching for an effective lagoon and shallow reef marine resources management system	M. Chapau

FI:CCFM/92/Exp.21	The state and prospects of stock enhancement projects in Japan	K. Kotaki
FI:CCFM/92/Exp.22	Case studies of community-based approaches to resource management in Sri Lanka	A.R. Atapattu/ P. Dayaratne
FI:CCFM/92/Exp.23	Sociological considerations in territorial use rights in fisheries	M.N. Delmendo
FI:CCFM/92/Exp.24	The economic management of Canada's Pacific fisheries and the prospects for decentralized control	G.R. Munro
FI:CCFM/92/Exp.25	Marine resource management in Kiribati: A great concern for the nation, fishermen and the unemployed	T. Tebano
FI:CCFM/92/Exp.26	Traditional community-based fisheries management practices in Indonesia	U. Wahyono/ Kee-Chai Chong/ Suseno and Reza Pahlavi

#### SPECIALIZED PAPERS

FI:CCFM/92/Sp.1	The community-based fishery management system: issues, problems and constraints	Jahara Yahaya
FI:CCFM/92/Sp.2	Activities of Japanese fisheries management organizations established by initiatives of fishermen's groups	A. Hasegawa
FI:CCFM/92/Sp.3	Economic effects of fisheries management with particular reference to the stabilization of fish prices	E. Ruckes
FI:CCFM/92/Sp.4	Community-based fisheries management: towards the restoration of traditional practices in the South Pacific	D. Doulman
FI:CCFM/92/Sp.5	Community-based resources management: experiences with forestry, water and land resources	R. Willmann



FI:CCFM/92/Sp.6	Coastal area management as framework for sustainable development of coastal fisheries: initiatives in Southeast Asia	T.E. Chua/ G. Silvestre/ J. Paw/M. Pido/ C. Luna
FI:CCFM/92/Sp.7	Territorial use rights in fisheries: suggestions for governmental measures	F.T. Christy
FI:CCFM/92/Sp.8	Credit as a tool for community-based fisheries management with particular reference to South-East Asia	J.F. Dorsey
FI:CCFM/92/Sp.9	The role of donor agencies in developing and establishing community-based fishery management systems	J.G. Jensen
FI:CCFM/92/Sp.10	Environmental and natural resources management in marine and coastal areas and riverine systems	M. Torell
FI:CCFM/92/Sp.11	Participatory approaches in coastal fishery management	M. Hotta
FI:CCFM/92/Sp.12	A note on community-based management in the context of ASEAN member countries	P. Martosubroto

#### COUNTRY STATUS REPORTS

FI:CCFM/92/CSR.1	An overview of the coastal fisheries management systems in Japan	K. Kawaguchi/ T. Naruko
FI:CCFM/92/CSR.2	Situation and prospects of marine aquaculture in Japan	H. Kawamura
FI:CCFM/92/CSR.3	Coastal fishery management and the development of fishermen's communities in China	Zhou Ying-Qi/ Song Zhiwen
FI:CCFM/92/CSR.4	Coastal fisheries management in Bangladesh	A.K. Rahman

FI:CCFM/92/CSR.5	Recent fishery management based on fishermen's initiatives in Japan's coastal waters	Y. Hirasawa
FI:CCFM/92/CSR.6	Coastal fishery management in Malaysia	Dato Shahrom bin A. Majid
FI:CCFM/92/CSR.7	An overview of the Japanese coastal fishing grounds enhancement and development programmes	D. Nagahata
FI:CCFM/92/CSR.8	Fisheries Management in Japan	F. Nagasaki
FI:CCFM/92/CSR.9	The role of coastal village communities and fishermen's organizations in the management of coastal fisheries resources in Indonesia	N. Naamin/ M. Badrudin
FI:CCFM/92/CSR.10	Objectives and strategies for the development of fishery management systems in coastal and inland waters in India	K.M. Joseph
FI:CCFM/92/CSR.11	Recreational fishing in Japan	K. Oishi
FI:CCFM/92/CSR.12	Measures and methods of pollution control in Japanese coastal waters	R. Kaminokado
FI:CCFM/92/CSR.13	Thailand experience in fisheries management	R. Tokrisna/ M. Duangsawasdi
FI:CCFM/92/CSR.14	Human resource development in community-based fisheries management in Bangladesh	M.N. Kutty/ A.K.M Aminul Haque
FI:CCFM/92/CSR.15	Korean experience in coastal fishery management	K.Y. Kim

#### INFORMATION PAPERS

FI:CCFM/92/Inf.1	Provisional Agenda and Timetable	FAO Secretariat
FI:CCFM/92/Inf.2	List of Documents	FAO Secretariat

FI:CCFM/92/Inf.3	Provisional list of participants	FAO Secretariat
FI:CCFM/92/Inf.4	Discussion Guide for Session 1, Item 1	FAO Secretariat
FI:CCFM/92/Inf.5	Discussion Guide for Session 1, Item 2	FAO Secretariat
FI:CCFM/92/Inf.6	Discussion Guide for Session 2, Panel 1	FAO Secretariat
FI:CCFM/92/Inf.7	Discussion Guide for Session 2, Panel 2	FAO Secretariat
FI:CCFM/92/Inf.8	Discussion Guide for Session 2, Panel 3	FAO Secretariat
FI:CCFM/92/Inf.9	Territorial use rights in fisheries in Sri Lanka - Case studies on Jakottu fisheries in the Madu Ganga Estuary and Karttudel fishery in the Negombo Lagoon	A.R. Atapattu
FI:CCFM/92/Inf.10	Fishery regulations adopted for coastal and offshore fisheries in Japan	T. Yamamoto
FI:CCFM/92/Inf.11	A re-evaluation of approaches to fisheries development: The special characteristics and the need for management	F.T. Christy
FI:CCFM/92/Inf.12	Relocation programmes for surplus fishermen in Malaysia	Rabihah Mohmood
FI:CCFM/92/Inf.13	Community-based management and sustainable development	F. Berkes/ M. Kislalioglu
FI:CCFM/92/Inf.14	Territorial use rights and economic efficiency - The case of the Philippine fishing concessions	I. Smith/ T. Panayotou
FI:CCFM/92/Inf.15	Community-based coral reef fishery resources management in the Philippines: the Balicasag Island experience	E. Flores/ Silvestre
FI:CCFM/92/Inf.16	The value today of traditional management and knowledges of coastal marine resources in Oceania	R.E. Johannes/ K. Ruddle/ E. Hviding
FI:CCFM/92/Inf.17	The seven greatest incidents in Japan	Y. Matsuda

#### LIST OF FAO PUBLICATIONS DISTRIBUTED AT THE CONSULTATION

1. Burke, W.T. 1982. Fisheries regulations under extended jurisdiction and international law. 226673-E. FAO Fish. Tech. Pap. No. 223: 23p.
2. Troadec, J.-P. 1983. Introduction to fisheries management: advantages, difficulties and mechanisms. 245979-E. FAO Fish. Tech. Pap. No. 224: 57p.
3. Mackenzie, W.C. 1983. An introduction to the economics of fisheries management. 237537-E. FAO Fish. Tech. Pap. No. 226: 31p.
4. Christy, F. T. Jr., 1982. Territorial use rights in marine fisheries: definitions and conditions. 234781-E. FAO Fish. Tech. Pap. No. 227: 10p.
5. Panayotou, T., 1982. Management concepts for small-scale fisheries: economic and social aspects. 240115-E. FAO Fish. Tech. Pap. No. 228: 53p.
6. Asada, Y., Hirasawa, Y., Nagasaki, F., 1983. Fishery management in Japan. 239349-E. FAO Fish. Tech. Pap. No. 238: 26p.
7. Beddington, J.R., Rettig, R.B., 1984. Approaches to the regulation of fishing effort. 244233-E. FAO Fish. Tech. Pap. No. 243: 39p.
8. Smith, I.R., Panayotou, T., 1984. Territorial use rights and economic efficiency: the case of the Philippine fishing concessions. 249101-E. FAO Fish. Tech. Pap. No. 245: 17p.
9. Scudder, T., Conelly, T., 1985. Management systems for riverine fisheries. 256289-E. FAO Fish. Tech. Pap. No. 263: 85p.
10. Cleveland, B.C. ed., 1985. Adjustments to changes in fisheries law and economics. 265475-491-E. FAO Fish. Tech. Pap. No. 269: 115p.
11. Panayotou, T., Panayotou, D., 1986. Occupational and geographical mobility in and out of Thai fisheries. 266103-E. FAO Fish. Tech. Pap. No. 271: 77p.
12. Ruddle, K., 1987. Administration and conflict management in Japanese coastal fisheries. 274207-E. FAO Fish. Tech. Pap. No. 273: 93p.
13. Hamlish, R. Methodology and guidelines for fisheries development planning (with special reference to the developing countries in the African region). 284015-E. FAO Fish. Tech. Pap. No. 297: 60p.
14. Hannesson, R., Kurien, J., 1988. Studies on the role of fishermen's organizations in fisheries management. 284019-E. FAO Fish. Tech. Pap. No. 300: pp.29-48

15. Nagasaki, F., Chikuni, S., 1989. Management of multispecies resources and multi-gear fisheries. Experience in coastal waters around Japan. 292743-E. FAO Fish. Tech. Pap. No. 305: 68p.
16. FAO Fisheries Department, 1991. Strategy and actions programmes for fisheries: Fish for food and development.
17. Indo-Pacific Fishery Commission, 1991. Symposium on artificial reefs and fish aggregating devices as tools for the management and enhancement of marine fishery resources, 1991, RAPA Report.
18. Mathew, S., 1991. Study of territorial use right in small-scale fisheries: traditional systems of fisheries management in Pulicat Lake, Tamil Nadu, India.
19. Indo-Pacific Fishery Commission, 1991. Report of the Symposium on the Exploitation and management and enhancement of marine fishery resources, RAPA Report 1987/8.

**This document is the report of an Expert Consultation held by FAO in cooperation with the Japanese Fisheries Agency in Kobe, Japan, 8-12 June 1992.**

**Effective management of small-scale fisheries is an extraordinarily difficult task.**

**Community-based approaches to management appear to offer important opportunities in certain situations. Extensive experience of such approaches in Japan provides valuable lessons of both the difficulties and the opportunities for this approach. The Consultation examined these experiences, as well as others in the Asia and the Pacific region. It identified the critical factors that facilitate or constrain community-based management; it identified guiding principles for the adoption and implementation of such systems; and it made proposals for short- and long-term projects and programmes to encourage increased use of community-based approaches.**

