

PART 1. REPORT OF THE WORKSHOP

OPENING OF THE WORKSHOP

The Sri Lanka-FAO National Workshop on the Development of Community-based Fishery Management Systems was held at the Inter-Continental Hotel, Colombo, Sri Lanka from 3 to 5 October 1994. The Convenor was the Honourable Indika Gunawardena, Minister of Fisheries and Aquatic Resources Development (FARD). The Chairman of the Workshop was Mr. A.R. Atapattu, Director of FARD. Dr. Masamichi Hotta (FAO) was Technical Secretary and Dr. Kee Chai Chong (World Bank), Resource Person. The List of Participants is given in Appendix A. The Prospectus is given in Appendix B, the Provisional Agenda and Timetable is given in Appendix C and the List of Documents is in Appendix D.

The participants were welcomed by Mr. Indika Gunawardena, the Minister of FARD, Mr. K.H. Camillus Fernando, the Secretary of FARD and Mr. A.R. Atapattu, the Director of FARD. Mr. I. Kimoto, FAO Representative was invited to address the Workshop. The addresses of the above persons are in Appendices E-H.

The purposes of the Workshop were:

- a. To analyse the process as to how self-regulatory management systems have evolved in Chilaw, the Puttalam District, Wathuregama, and the Galle District;
- b. To assess the socio-economic impact of fishery management measures in the above areas and to identify the validity and risks of such management.
- c. To establish guidelines to facilitate development of community-based approaches in fishery management throughout the country, with particular reference to the legal and institutional framework, strengthening of fishermen's participation through community organisations, awareness building and educational activities.

Socio-economic consequences of excessive fishing effort

The fishery sector contributes only 2% to GDP but 65% to animal protein consumption.

It is also an important industry in terms of employment and foreign exchange earnings.

Coastal fisheries, which are mainly small-scale, contribute 85% to total annual production. Main characteristics of the coastal fisheries include open access which has led to pressure on resources. Entry limitation appears to be difficult and therefore relocation of surplus fishermen to other sectors of the economy is necessary.

Socio-economic features of coastal fisheries in Sri Lanka are: (i) the influence of religion (important for management is the fact that fishers are mostly of the Catholic religion); (ii) multiple resource users, which could lead to conflicts (tourism and fishery are expected to be complementary but experience shows that there are conflicts, for example between beach seiners and hotel construction); (iii) positive experiences with participation of fisheries cooperatives in management.

A major problem identified is that legislation is not geared toward management. There is a licensing system and special management areas, i.e. areas to be managed by local organisations. Although licensing applies to all types of operations, the main problem is with enforcement capabilities. Management areas are confined to critical areas.

The institutional and administrative set up is not appropriate to deal with conflicts between resource users at district and national levels. There are organisational committees such as the Coast Conservation and Advisory Council with representation of different organisations, and the Cabinet Sub-Committee on Coastal Affairs, that address coastal area management issues. At provincial level, information is required.

In the 1950's, introduction of new technologies, e.g. synthetic gear and motorised boats, was a government initiative but geared towards traditional fishers who adopted the new fishing techniques after some initial conflicts. Those who did not were only temporarily displaced.

Problems have been observed with migrating fishermen and their settlements in certain areas. This is a problem of open access and management should be considered on a consultative basis. On the question of whether a licence system for aquaculture with annual permits is necessary, it was mentioned that permits need to be obtained under the new Act.

To relocate fishers to other sectors has proved difficult but transfer to other fisheries-related activities has been shown to be more successful although it has not been studied in depth. There are indications that incomes in coastal fisheries were decreasing, while incomes of relocated fishers went up. Fifty percent subsidy was given to cooperatives but due to limited funds, government would not be able to meet all the requirements. However, for banks, fishery does not represent a preferred investment field.

Law enforcement in the districts is not always successful. There is some coherence in the activities of extension – development – law enforcement. An in-depth analysis of prawn farms has not yet been conducted but is recommended in the new Fisheries Act regarding fish farming. It is desirable that environmental impact assessments be conducted before allocating land for prawn farms.

Other coastal resource user industries such as tourism have their own development plans and legislation under the Environment Act. There is no information on the number of fishers but a system of fisher identity cards exists. The coming census is expected to provide more information on the subject. In terms of market policies, subsidies are not considered to have a positive effect, but subsidies should be available for the introduction of new technologies.

Legislation cannot cover activities beyond the EEZ so an international forum should do that. With respect to this, the meeting was informed of the work in progress to establish a code of conduct for responsible fisheries. With regard to dynamite fishing, problem areas have been identified but prevention has so far not been very successful. Dynamite fishing is now conducted by professional divers, who are easy to detect but the violators seem to be organised in gangs and scare the local fishermen. This practice also affects scuba-diving tourism.

Community involvement in special area management should include all resources users and not only fishers. It was mentioned that management responsibilities should be decentralised and that cooperatives should be provided with authority to undertake management. In some instances, resource users have worked out self-regulatory measures although a 100% coverage

has not been attained. The Sri Lanka government seems favourable to decentralisation of authority to communities or cooperatives.

The functions of extension work and law enforcement are often combined in the same person. This should be avoided in order not to confuse the responsibilities and not to put extension workers in a difficult position in the villages where they are based. In the past, there was a separate preventive service and separation of duties regarding enforcement and extension, but later they were amalgamated. It may be advisable to rethink these management practices now.

Information requirements

Conflicts generally arise due to shrinking fisheries resources. There is a need for intervention to manage the fisheries in order to resolve the conflicts among different groups of resource users. Management intervention requires the information and knowledge necessary to analyse the issues and situation in order to develop appropriate management measures. The information needed should cover different aspects of the resources and the resource users.

The objectives of the Sri Lanka National Fisheries Development Plan were reviewed in order to shed light on the required information to develop management systems. The current status of information and data collection, limitations of data collection and ways and means to overcome such problems, including improvements to collection, compilation and analysis, were highlighted. Under the present system of data collection, not all the fisheries are covered, nor the whole country. There is now a standing committee to review the present data collection system with a view to improving it.

More specifically, the following categories of information are required to manage fisheries in Sri Lanka: (a) Biological information; (b) Technical information; (c) Economic information; (d) Social information; (e) Environmental information; (f) Institutional information.

The required information for developing fishery management presented above can be classified into three categories: for managing the resources, for managing the resource-users and for managing the introduction of technology.

Fishery resource managers have to be more knowledgeable about the resources and resource-users for whom she/he has responsibility. She/he is, in essence, a knowledge worker and her/his action/decision should be research-based. It was suggested that the use of indigenous knowledge, including traditional or modern community-based management systems or models of self-regulation of the resources should also be incorporated into the information to be collected. The fishers need to be educated in the importance and value of such data for fisheries management. They should be made to understand the benefits of improved management.

Reliability and accuracy of information to be collected was emphasised with a view to improving its value. It was pointed out that in the past there had been a tendency to concoct data without going out into the field. The pressure on data collectors to report increasing production trends must be checked or discouraged because if the data do not support an increasing trend, they should then be reported as such. Data to be collected should be simple, straightforward and prioritised in some order of importance.

There is an urgent need to strengthen data collection co-ordination and co-operation between NARA and DoF on the one hand and between and among other agencies with an interest in and responsibility in fisheries and aquatic resources on the other.

The lack of data collectors or enumerators and lack of greater community involvement in data collection were continuing problems. Present data collectors are overloaded with work; in addition to their fishery extension and enforcement responsibilities, they are required to assist in data collection. The ratio of Fishery Inspectors to number of fishing households is 1:400-500. More data collectors are clearly needed.

Institutional credit needs

In the past, banks and other lending institutions have attempted through various means and management measures to lend to the sector. Two such are the "Fisheries Banks" and Regional Rural Development Banks (RRDB). Overall they have not been very satisfactory and failed to meet the needs of the poorer sections of the fishing community. Their operations were unable to compete with the informal lenders.

Fishery cooperatives are units that could be considered to be community based institutions for the purpose of lending to the sector. The participation of lending Institutions has had a positive effect in enforcing better financial practices and sector management, thereby creating a greater awareness of the need for management and conservation of the fishery resources as they have a direct bearing on lending criteria, e.g. source of earnings, etc. Lending has tended not to include NGO's because many NGO's do not have legal status. However, some NGO's have had a very positive impact in promoting good financial practices.

In the future, the tendency should be for investment to be directed mainly to the private sector, except infrastructure development which is presently limited to mainly fishery harbour facilities and anchorages.

The PNN scheme (community credit system) was a happy combination between the informal money lenders and credit institutions and was successful in stabilising lending rates and improving loan recovery through the introduction of a more ethical code of conduct.

Institutional credit has been used in recent times as a means of controlling overfishing problems associated with over capacity in coastal areas by offering credit for multi-day fishing craft thus diverting the excess fishing effort to exploit the off-shore fishery. A study by World Watch, an International NGO indicated that off-shore fishing would become uneconomic in the long run. Hence the government's present policy of encouraging the off-shore fishery should be viewed with caution. In Sri Lanka, the off-shore fishery is still small in scale as it is carried out by small scale fishing vessels that have ventured off-shore. The fishermen are still the same small scale boat owners and fishing companies as such, have still not evolved. Monitoring of the off-shore fishery should be pursued aggressively in order to evaluate the trends in catch per unit effort. Cost and benefit analyses should be undertaken to facilitate effective management of the fishery.

Maximising technical efficiency, which has been the focus of fishery development schemes in the past, tends to cause overfishing problems and over exploitation of resources. Hence, this has now to be balanced by economic efficiency considerations in order to correct any imbalances and ensure sustainability and profitability.

Community-fishing management practices

The fishery in the Chilaw lagoon is mostly for prawn and shows signs of overexploitation. Catches of big prawns are decreasing and by-catches are increasing. Problems that also occur are

waste water effluents and problems created by motor boats. The impact of the ban on trawling since 1992 has been very limited as incomes of the fishers have not increased over this period. In Chilaw, where community based management is in practice, fishing groups are organised in a federated association.,

Although there are environmental problems, the federated association has not undertaken activities to build awareness among fishermen. Apparently a law exists that prohibits encroachments by coastal construction but this law is not respected. There has been some protest against cutting of mangroves – productive breeding grounds – but not very successfully. Caution and education may be needed to raise the interest of the fishing community of Chilaw in changing to an environmentally sound, higher intensity of fishing, for example, by restocking waters based on fish culture. Caution and education may be needed. Short-term profits could be raised through water-management measures in the lagoon but the question remains whether the community would support such activities. Space for fishing is limited and clashes between traditional and modern fishing methods have been observed. The potential of the prawn fishery resources and that of other fisheries is limited and any expansion of the industry should be absorbed by the existing fishing community which is, in itself, limited.

The lagoon holds a considerable potential if considered as a nursery and could be made more productive if fishermen were made more aware of the potential. However, regarding the lagoon as a nursery should not be over-simplified. Breeding and flow of larvae in and out of the lagoon is complicated. Also diversification is needed and over emphasising shrimp production should be avoided. Kattudel fishing is for the moment the only technique really managed by limiting fishing efforts in the lagoon and the question is how to replicate this self-management system to other fisheries.

But management also means a full exploitation of available resources. Ownership of resources is unique for this situation and the issue was raised whether the question of equity and privileges does not lead to dissatisfaction in the community. Other job opportunities should also be investigated since fishing has proven to have a negative social (economic?) connotation and other opportunities are often preferred. Other possibilities/potentials within the sector should also be exploited.

Negombo Lagoon is a bar-built shallow estuary, highly productive and exposed to constant fishing effort throughout the year. At least 22 types of gear or methods of fishing are in use. Most of the traditional methods are simple and environmentally friendly. The two most important are also the only two traditionally closed fisheries, that is the stake seine net (Kattudel) and the brushpile (Masathudel) fisheries. The Katta (Angler FAD) and Jakottu (Kraal) are also a form of traditional user rights fisheries (TURF's) since they are inherited, owned and operated by specific individuals.

All other fisheries are open access which has led to over exploitation of finfish and crustaceans. In Negombo Lagoon, this trend is evident from: increased numbers of fishermen, decreased size of animals caught, increased value of ornamental fish, increased types of gear used, decreased mesh sizes and decreased CPUE of brushpiles.

A licensing system should be brought in to regulate gear and protect sensitive areas (e.g. seagrass), possibly using a people participation approach.

The push net, considered a highly damaging gear, yields finfish seed for exports to

Malaysia. While it may increase shrimp production by harvesting grouper fingerlings, on balance the disturbance caused may be detrimental to the ecosystem in the long run.

NARA studies have confirmed that the Negombo Lagoon's total area has shrunk, though at a slower rate than studies have suggested. On the impact of the proposed harbour in Negombo on the lagoon ecology it was remarked that Negombo Lagoon already has a harbour. The Morawala location proposed was the best techno-economic alternative. Fearing an expanding fleet made up of absentee boat owners, the local stakeholders oppose any new construction. The Ministry of Fisheries & Aquatic Resources Development supports popular opinion to stop plans for a new unwanted facility. The town drains, the export trade zone industry, agriculture pesticide run off and kerosene and oil-leaking motorised vessels were polluting the lagoon and damaging the fish. The natural flushing of the lagoon was important but it has constantly been reduced. In reference to Environmental Impact Assessment, no major study has been conducted as no major developing project had been planned in the area. Some studies of a short-term nature have been conducted as well as long-term data collected. NARA has established that CPUE in the lagoon has been erratic, falling during the 1980's by 20% only recovering in the early 1990's.

The main concern, about the decreasing size of the lagoon due to illegal construction and development, was difficult to address. There was a proposal for a Muthurajawella Authority but it was not funded. The ensuing proposal to gazette the lagoon as a wildlife sanctuary would inappropriately give the Department of Wildlife Conservation the sole authority to licence fishermen. Now the hope is that the lagoon can be declared a fisheries management area under the proposed Fisheries Act. This would allow the Department of Fisheries to deal effectively with the shrinkage problem.

For comparison, it was noted that the ban on trawling in neighbouring Chilaw Lagoon had resulted in an increase in the trammel net fishery which took advantage of the increased amount of unharvested shrimp. The relationship between the shrimp stock in the lagoon and the grouper population in the open sea had been the subject of speculation but no data on the matter had been analysed. The lack of "ownership" of natural resources was at the root of misuse and lack of action. In Chilaw, the Forestry Department does not see the mangroves as their mandate and thus no one is active in their protection.

In Batticaloa Lagoon, thousands of displaced sea fishermen had come into the lagoon due to civil disturbance. The lack of sea anchorages forces larger sea vessels to moor in the lagoon. Prohibited gears were being used in the sensitive mouth area where only cast nets are allowed.

It was questioned whether the fisherfolk organisations were able to come together for a community-based approach. While the stake seine fishermen were well organised, the brushpile fishermen were not. Regarding traditional conflict resolution, the District Officer has been involved in improving the rules after internal conflicts in the Stake Seine Federation. It was noted that the stake seine groups have conflicts with those using new technology such as cross nets (Haras del) and trammel nets (Disco del). In these conflicts, the police are the first source of help, thereafter the Ministry of Fisheries and Aquatic Resources Development are brought in. The role of fishermen's cooperatives in some foreign countries was discussed and examples were given of how those cooperatives were able to co-operate with the state authorities in fisheries management.

In the past, fishermen have not been able to defend their interests. The diversion of the Gal Oya into Batticaloa Lagoon is an example of the better organisation of the local paddy farmers than the lagoon fishermen. Similarly, the Valachenai Lagoon fishermen were not able to organise

themselves sufficiently to prevent the construction of the Paper Mill there.

There were other situations where the fishermen have been able to organise to meet the challenge of community-based lagoon management. The people of Rekawa Lagoon have been able to meet on a weekly basis and develop an integrated management plan with the Coast Conservation Department for that lagoon covering all aspects including alternative employment and coral mining. NARA has similarly worked on a management plan for Puttalam Lagoon and hopes to continue. Popular participation was seen as key to the success of this work. The people need to be kept informed from inception to implementation.

Stilt fishing is a unique form of fishery. Presently there are about 80—100 fishermen engaged in these fisheries at any one centre. Normally, 800—1 000 fish are caught by a fisherman per day. Fishing is carried out for about 5 or 6 hours per day in two periods 10.30—12.30 p.m. in the morning and in the afternoon 3.30-6.30 p.m.

The fishermen erect individual stilts by fixing a wooden pole in a hole made in the coral bed. The seat is then made on a horizontal cross bar tied to the pole as high as possible, with a small part of the vertical pole left free to serve as a hand hold. The stilts are normally erected within walking distance of the beach generally up to about the level of the hips of the fishermen.

Stilt fishing is a limited form of fishing and its production is very low. Purse seine fishing would be a more productive but the stilt fishery is presently also a tourist attraction due to its unique nature and the fishermen earn extra money by charging the tourists.

Stilt fishing is an example of community based fishery management as it is a fishery managed by the fishermen themselves. On the other hand, the beach seine (madal) and purse seine fishery are regulated by the central authorities rather than the community. Beach seine Fishing Regulation 1984 and Purse seine Net Fishing Regulation 1986 were made by the Government in order to better manage these fisheries.

Madel fishing (beach seine) is also a very important fishery and it is also a community-based fishery but due to ethnic disturbance these fishing operations were disrupted during recent years, in the north and east. Beach seine fishing in South Sri Lanka, specially Waturagama in Ahungalla is managed by the fishermen themselves. There are about 26 beach seines and operated without any problems as they are managed by a community-based system.

It is possible to promote fisheries, specially beach seining (land-based fishing) in conjunction with the development of the tourist industry in Sri Lanka. North of Colombo, at Negombo, Chilaw and Puttalam, there are a number of boats which are engaged in fishing with tourists. Even multi-day boats are engaged in this and both the fishermen and tourist boats were able to get good income. There are two Anglers Clubs in Sri Lanka.

The Workshop confirmed that the term “community-based management” as presently used, means collaborative management; the close co-operation of government authorities and the people. The government plays a crucial role supplying technical data, giving legal guidance as well as assisting in the fair implementation of plans.

In most cases, there is considerable vagueness about which government authorities have the leading role in the management of a particular area. It is necessary for all these agencies to co-ordinate their sectoral efforts in order to succeed with the integrated approach required for the

special area management process. The workshop noted the need for co-ordination of all those involved in coastal resources management through a “clearing house” forum.

The proposed Fisheries Act which proposes Fisheries Management Areas, needs a broader orientation toward management of the environment and aquatic resource habitat so as not to preclude involvement of non-fisheries aspects.

The situation in Negombo Lagoon is unique in that the fishing sector is predominant over other industries. The organisation there will need to be led by the interests of that sector but other groups will have to be involved for an effective management. Most other coastal areas in Sri Lanka have a better balance of stake holders representing the various interests and sectors.

CONCLUDING SESSION - RECOMMENDATIONS

Topic 1. Socio-economic consequences of excessive fishing effort and the need for fishery management

1. Management measures should be based on long-term national objectives and targets to ensure the sustainability of fishery resources exploitation and the equitability of benefits distribution. Such measures should be designed to involve fishermen from the start.
2. Development of participatory approaches to fishery management and conservation should be incorporated into national legislation.
3. Effective mechanisms should be established for monitoring, control and surveillance and law enforcement. Adequate financial resources should be made available to this end. The possibility of establishing a separate unit for enforcement of regulations should be considered.
4. In order to facilitate the exit of fishermen from coastal fisheries, fishermen's relocation programmes should be developed to transfer excess labour and capital to offshore fisheries which have a potential for development.
5. Possibilities should be sought to establish an association of offshore fisheries for tuna, billfishes and sharks in order to ensure that such fisheries will be carried out in a responsible manner.
6. Where reliable information is available, fishermen should be properly educated on the state of fish stocks and their potential yields and environmental status in order to ensure their collaboration which is essential for effective fishery management.

Topic 2. Information needed for strategic planning of fishery management

7. The present system for collection of data and information for management should be strengthened and expanded to include adequate biological and economic aspects of all types of fishing.
8. A system should be developed for the collection and analysis of the data on lagoon fisheries in order to assess the magnitude of lagoon resources and the components of adjacent waters for management purposes.

9. A system should be established to collect information on the catches of fry and fingerlings (exported as ornamental fish) by species, areas and gear used. Similar information should also be compiled for marine organisms exported for culture purposes.
10. There should be District Fisheries Inspectors who will be exclusively engaged in data collection at landing sites. An adequate number of District Fisheries Inspectors should be allocated.
11. The field staff should be motivated to carry out the data collection with the provision of the facilities required, such as motorcycles and other incentives.
12. The potential contribution that fisheries cooperatives could make in strengthening data collection (production and prices) should be recognised and appropriate mechanisms should be established for timely reporting of information.
13. Future statistics collection for production estimation should cover more fisheries and species and look into the possibility of island-wide coverage. Efforts should also be made to avoid duplication of data collection between the Department of Fisheries and Aquatic Resources and the National Aquatic Resources Agency. An annual fishery statistical report should be published by the Ministry of Fisheries and Aquatic Resources Development.
14. The results of data collection surveys should be shared with the community in which the survey was conducted so that they are informed of the outputs of the survey. In this way, the respondents who were interviewed will feel that they have contributed in a meaningful way toward solving their problems. The sense of participation will heighten their sense of belonging or ownership of the development and management intervention.
15. Since children are a potential source of information to parents in creating awareness in families, an effort should be made to develop awareness among school children in coastal communities of the value of the environment, fishery management and sustainable production. In this context, extra-curricular school activities such as sea scouting, involving both girls and boys, might be developed.

Topic 3. Strengthening linkages between economic activities and fisheries management

16. A review of the current credit programmes should be carried out in order to develop suitable strategies for strengthening linkages between credit and management planning and implementation. The investment and credit requirements for development of community-based fishery management should be analysed within the framework of the National Fisheries Development Plan.
17. Credit schemes should be established taking into account the emerging needs of fishery management and environmental protection. It was noted that credit and subsidy schemes for motorisation in the past had caused deterioration of inshore water resources.
18. Linkages between credit and marketing should be strengthened in order to improve the recovery performance of fishery credit schemes. Fish auctions by fisheries cooperatives should be promoted to this end.

19. There should be better co-ordination between banks and fisheries officials at field level in order to improve the recovery rate of loans.
20. Efforts should be continued to integrate informal and formal credit sectors for the purpose of bringing down usurious interest rates charged by informal money lenders.
21. The financial standing and management capabilities of fishery cooperatives should be improved in order to expand their credit activities. Proper guidance and training should be provided by appropriate institutions including banks.
22. The recovery rate of loans has proved to be high when there is no subsidy component in credit programmes. However, it is necessary to provide subsidies for promoting pioneering activities such as transfer of coastal fishermen to offshore fisheries and non-fishery activities.

Topic 4. Community-based fishery management practices

23. Awareness building is needed among resources users, government authorities, the private sector and the general public with regard to the environmental degradation of coastal ecosystems.
24. Possibilities should be investigated of developing stocking programmes in the lagoons to enrich the resources and improve the incomes of fishermen. Expanded activities in the lagoons may provide alternative employment opportunities for displaced fishermen.
25. Use of fish aggregating devices (FADs) should be considered as part of management schemes and the construction and deployment of FADs be included as a fishery input in government subsidy programmes.
26. An impact assessment should be carried out to determine whether the existing community-based management has brought about increased incomes and well-being to the fishermen concerned. Such a study may also include an analysis of the relationship between socio-cultural and kinship aspects and management practices.
27. All types of fishing gear operators should be brought together in apex or primary organisations to avoid territorial conflicts. Marine fishermen need to be aware of the lagoon management practices as well, since there is considerable interdependence among marine and lagoon fisheries. As regards the Hikkaduwa Marine Sanctuary, the various interest groups should be organised under the umbrella of the Divisional Secretariat, which is in a position to address the multitude of aspects associated with the protection of the Sanctuary.
28. Traditional fishery management systems are often exposed to external threats (e.g. encroachment of outsiders into fishing grounds; market forces). Action should be taken to control outside fishers' encroachment into the local fishery management areas. This may be done through strengthening licensing systems and reinforcing horizontal co-ordination among fisheries cooperatives.
29. The stilt fishing should be allowed to continue in its present form as it is eco-friendly and is community-based and in addition is a tourist attraction. Other types of eco-friendly fishing should also be similarly encouraged in connection with tourist industry promotion programmes.

Topic 5. Legal and institutional-framework for fishery management and the role of community organisations

30. The new Fisheries Act which will be promulgated in the near future should have a provision in relation to information collection, analysis and dissemination which is essential to increase the strength of fishery management planning and implementation.

31. The new legislation should place stronger emphasis on participatory approaches in fishery management in order to ensure the active participation of fishermen in all stages of management development.

32. Suitable local organisations to be involved in the design, implementation and surveillance of management measures should be identified and their staff be trained.

33. Due consideration should be given in the new Fisheries Act to the protection of traditional community-based fisheries management practices.

Topic 6. Coastal Zone Management and Development

34. Various government authorities, research institutes, private sector and coastal management projects should meet frequently and systematically in order to exchange information. In this context, a mechanism should be established to improve cross-sectoral co-ordination and co-operation in the development and management of the coastal areas.

35. The management of coastal ecosystems should involve non-fisheries sectors, particularly industry and environmental groups, in order to come to a consensus on major issues.

36. The consultative process between the government as catalyst, and the people as stakeholders, should involve the whole community, not just those subgroups directly involved.

Topic 7. Prospects for Developing Community-Based Fishery Management in Sri Lanka

37. The government should translate into action its political will and commitment by devolving and delegating more and more management responsibility and authority to the fishers. Tangible support should be extended, comprising financial allocation, human resources development, services and physical facilities.

38. Government at the national level should closely work and co-ordinate with local or provincial councils to develop community-based fishery management systems.

39. The appropriateness of fishery cooperatives participating in the fishery management on behalf of fishermen should be evaluated. Further development and strengthening of fisheries cooperatives should be supported as a means of implementing community-based fishery management systems.

APPENDIX A

LIST OF PARTICIPANTS

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28. **Dr.(Mrs) P.Dayaratne**, Director National Aquatic Resources Agency, Crow Island, Mattakkuliya, Colombo 15.
29. **Dr.(Mrs) Padmini De Aiwis**, Director National Aquatic Resources Agency, Crow Island, Mattakkuliya, Colombo 15.
30. **Dr.D.S.Jayakody**, Research Officer, National Aquatic Resources Agency, Crow Island, Colombo 15.
31. **Mr.Arjan Rajasuriya**, Research Officer, National Aquatic Resources Agency, Crow Island, Colombo 15.
32. **Dr.K.P.Sivakumaran**, Research Officer, National Aquatic Resources Agency, Crow Island, Colombo 15.
33. **Mr.Leslie Joseph**, Consultant, ADB. Fisheries Development Project, NARA Building, Colombo 15.
34. **Mr.Gunaratne**, P.R.D.B., Chilaw
35. **Ms. Nirufa Naleem**, Janasakthi Bank, Women Development Federation, District Secretariat, Hambantota.
36. **Mr.Bandula Butathsinhala**, Assistant. General Manager, Fisheries, People's Bank Head Office, Sir Chittampalam A Gardiner Mawatha, Colombo 10.
37. **Mrs.A.M.L.Jayamaha**, Assistant. General Manager/Rural Credit, Bank of Ceylon Head Office, Colombo 01.
38. **Mr.W.A.C.Tissera**, Agriculture Credit Department, Bank of Ceylon Head Office. Colombo 01.
39. **Mr.W.D.Premachandra**, National Development Bank, Nawam Mawatha, Colombo 02.
40. **Mr.B.S.Kahawita**, Director, Coast Conservation Department, New Secretariat, Colombo 10.
41. **Dr.Fedrick Abeyratne**, Programme Officer, UNDP, Bauddhaloka Mawatha, Colombo 07.
42. **Mr.K.Nissanga**, Fisheries Project Manager, IRDP, Hambantota
43. **Mr.G.W.Kaveendraraja**, Programme Officer, JICA Office, P.O.Box 2068, Colombo.
44. **Mr.W.P.P.Abeydeera**, Programme Director, Sri Lanka Canada Development Fund, 5/3A, Police Park Terrace, Colombo 05.
45. **Mr.Mohan Siribaddana**, USAID, P.O.Box 106, Colombo 03.
46. **Mr.Ajith Rodrigo**, Central Environmental Authority, Maligawatta, Colombo 10.
47. **Mr.Gamini Hewage**, Central Environmental Authority, Maligawatta, Colombo 10.
48. **Dr.Allen White**, Advisor, Special Area Management Project, CRMP, No. 01, Gower Street, Colombo 03.
49. **Mr.H.Gunawardene**, 4/3, Welikadawatta Road, Rajagiriya.
50. **Dr.K.C.Chong**, FAO, Project Coordinator, Bay of Bengal Project.
51. **Dr.M.Hotta**, FAO, Senior Fishery Planning Officer.
52. **Mr.Kees Leendertse**, FAO, Associate Professional Officer.
53. **Rev.Fr.Sixtus Kurukulasuriya**, Director, Paul VI Centre, Front Street, Colombo 01.

54. **Mr.M.D.Fernando**, Secretary, Sri Lanka National Federation of F.C.S.Ltd., 127, Grandpass Road, Colombo 14.
55. **Mr.George J.Perera**, Secretary, Abu-Dhabi Boat Operators Union, 40/14, Lewis Place, Negombo.
56. **Mr.J.P.Jayarathne**, Secretary, Matara Multiday Cooperative Society, c/o. DFEO's Office, Matara.
57. **Mr.W.Iwan Christy, President**, Inboard Boat Operators Cooperative Society, No. 1010, Pitipana South, Negombo.
58. **Mr.U.G.M.Rupasinghe Banda**, Manager, Multiday Boat Owners Cooperative Society, DFEO Office, Mahawewa.
59. **Mr.Cecil Fernando, Pitipana** Deewara Kala Kendraya, Pitipana, Negombo.
60. **Mr.Merman Kumara, Director**, SEDEC, 133, Kynsey Road, Colombo 08.
61. **Mr.D.T.Hettiarachchi**, All Ceylon Madel Owners F.C.S. Ltd., Ranmal, 110/5, Chilaw Road, Negombo.
62. **Mr.Robert Hall**, Census Officer, UNDP Marine Fisheries Management Project, Department of Fisheries & Aquatic Resources, Development, New Secretariat, Colombo 10.
63. **Mr.G.Piyasena**, Deputy Director (Planning)/Project Co-ordinator, UNDP Marine Fisheries Management Project, Department of Fisheries & Aquatic Resources Development, New Secretariat, Colombo 10.
64. **Mr.M.A.W.Ariyadasa**, District Fisheries Extension Officer, Fisheries Industries, UNDP Marine Fisheries Management Project, Department of Fisheries & Aquatic Resources Development, New Secretariat, Colombo 10.
65. **Mr.K.B.S.Wijeratne**, Assistant Director, National Institute of Fisheries Training, New Secretariat, Colombo 10.
66. **Mr. Nimal Dayaratne**, Publicity Officer, Ministry of Fisheries & Aquatic Resources Development, Maligawatta, Colombo 10.
67. **Dr.K.Sivasubramaniam**, 80/5C, Leyards Road, Bambalapitiya.
68. **Mr.R.Tilak**, Deputy Director, Aquaculture Policy Division, Ministry of Fisheries & Aquatic Resources Development, Maligawatta, Colombo 10.
69. **Mr.N.Abeywickrama**, Assistant Director/ Planning, Ministry of Fisheries & Aquatic Resources Development, Maligawatta, Colombo 10.
70. **Mr.Ranjith Seneviratne**, FAO, Project Operations Officer.
71. **Mrs.R.Maldeniya**, Research Officer, National Aquatic Resources Agency, Crow Island, Colombo 15.
72. **Mr.T.J.Jayasinghe**, Consultant, Ministry of Fisheries & Aquatic Resources Development, Maligawatta, Colombo 10.
73. **Mr.V.L.C.Pietersz, Fisheries** Consultant, 29/8, Rodrigo Avenue, Galpotta Road, Nawala.
74. **Mr.Henry De Scram**, Advisor, Corporate Relations, NDB, 26/2, Lauries Road, Colombo 04.
75. **Mr.Ruwan Kumara, DFEO**, Dept. of Fisheries & Aquatic Resources Development, New Secretariat, Maligawatta, Colombo 10.

APPENDIX B

SRI LANKA/FAO NATIONAL WORKSHOP ON DEVELOPMENT OF COMMUNITY-BASED FISHERY MANAGEMENT COLOMBO, 3-5 OCTOBER 1994

PROSPECTUS

1. BACKGROUND AND JUSTIFICATION

In Sri Lanka, the fisheries are essentially small-scale and coastal in character, some 75% of national fish production being taken in coastal waters. The total annual marine catch increased from 90,000 tons in 1972 to reach a peak of 185,000 tons in 1983 and then gradually declined to 146,000 tons in 1990. This decline reflects the disturbances in the North and the East which started in the latter part of 1983.

Within the overall economic development programmes, a series of schemes for fishery development have been implemented, such as the promotion of motorisation of traditional craft and the introduction and extension of new types of fishing craft and nylon nets. As a consequence, the fisheries have evolved from being entirely artisanal to more semi-industrial. These developments, together with rapidly growing consumer demand for fish both in the domestic and international markets, led to a rapid increase in the production of fish until the mid-eighties.

The total number of craft is now estimated to be around 28,000, giving employment to approximately 120,000 persons in fishing and post-harvest activities. The drift gill net is most widely operated, while long lines, troll lines, trawl nets, purse seines, rod and line are also used.

Most inshore fishery resources are now fully exploited and some such as shrimp are over-fished because of intensive trawling. Management measures have been taken in the form of trawling restrictions in certain areas. For example, trawling is completely banned in Chilaw and permits to operate purse-seines are not issued at present.

With a few exceptions there is open-access to the coastal fisheries. Beach seine (Madel) and stake net (Kattudel) fisheries are among the few instances where territorial use rights are in force. They are comparatively better managed with a definite system of limited entry into the fishery. In these fisheries, management measures restrict access, controlling the area of residence of resource users (e.g. resident fishermen of a given village), time of operation, number of fishing units, inheritance (e.g. rights being handed over from father to son), etc. Due to these management measures, there is no immediate danger of depletion of coastal resources. However, in the majority of coastal fisheries there are no such limits on entry.

Due to the open access nature of operation, fishing effort has increased over the years. This has led to conflicts among groups of fishermen engaged in different types of coastal fisheries. The history of conflicts among fishermen over fishery resources can be traced back to the late 1950s when there was intense friction between the fishermen using traditional craft/gear and those innovative fishermen who took up the challenge of using motorised boats and nylon nets. In the mid-1980s there was strong resistance from fishermen using other types of gear against management measures which attempted to limit sizes and numbers of nets, area of operation and the imposition of a high licence fee. As a consequence, the government had to suspend the licensing system.

Disputes between coastal trawl fishermen and groups engaged in other types of fishing led to the complete banning of trawling in spite of an effective management system introduced by trawl fishermen themselves. As a result, the government has been implementing a massive programme for the relocation of these fishermen to other fisheries. With a view to limiting entry to the coastal fishery, some concrete measures have been taken. For instance, the emphasis of the government allocation of producer subsidies (up to 50%) for fishermen to purchase boats, engines and gears has been changed from coastal fisheries to off-shore and deep sea fisheries.

In addition, various steps have been taken by the government, on the basis of the new fishery legislation formulated with the assistance of FAO, to solve management problems. These include the designing of a licensing system for all active fishing methods, demarcation of fishery management and conservation areas, introduction of bigger fines and jail terms for violators. In certain fisheries, for example purse seining, a high resource fee is being introduced to limit entry.

In order to encourage participation by resource users in the management process, some of the management measures have been organised under the umbrella of the cooperatives. A programme to educate fishermen in the importance of fisheries management has been implemented. Community-based fishery management systems have been practised in Chilaw, the Puttalam District and in Wathuregama, the Galle District with the initiatives taken by fishermen themselves. The former relates to the development of a shrimp fishery using 3.5 t motorised vessels. Realizing that conflicts with the traditional beach seine fishery for shrimp might lead to a ban on trawling, the trawler fishermen established an Association to control the orderly operation of trawl fishing. The Association laid down rules governing the timing, frequency and areas for trawl operations. The latter case concerns the self-regulation by the community of a traditional beach seine fishery on the South West coast of Sri Lanka. Partly because of social traditions regarding the transfer of ownership of fishing equipment, there had been a considerable growth in the number of seine nets and net setting craft owned in a community exploiting privileged rights to a foreshore area of less than 800 m. The community itself therefore introduced and administered a fishing system based upon an equitable rotation of the seines and craft.

Although government policy accords high priority to the implementation of regulatory measures, a number of important issues remain unresolved. These, for example, include whether to retain the privileges accorded to traditional beach seine operations or to encourage more efficient types of fishing methods which could make a more substantial contribution to the overall objectives of increasing fish production.

The importance of managing the coastal fisheries is now being realised more than ever before, mainly because most of the fisheries still enjoy free and open access with no limits on the growth of fishing effort. There are thus many problems with regard to the income generated by fishing operations with diminishing marginal returns and the effect on the environment due to over-exploitation. Although there are commendable examples of community-based planning and implementation, participatory approaches to fishery management are still in their infancy.

It would therefore be useful to hold a national workshop to review overall policy and strategies for coastal fisheries management to ensure maximum benefits to and participation by local communities, to build local and national institutional mechanisms for implementation of fishery management schemes.

2. OBJECTIVES OF THE WORKSHOP

- (a) To analyse the process as to how self-regulatory management systems have evolved in Chilaw, the Puttalam District and in Wathuregama, the Galle District, in order to define criteria and conditions which may promote community-based resource management systems in other parts of the country.
- (b) To assess the socio-economic impact of fishery management measures in the above areas to identify the validity and risk of such management measures.
- (c) To establish guidelines to facilitate development of community-based approaches in fishery management throughout the country, with particular reference to the legal and institutional framework, strengthening of fishermen's participation through community organisations, awareness building and educational activities.

3. AGENDA ITEMS

Issues to be addressed will include the following:

- (a) National policy and strategy to achieve sustainable development of fishing industries.
- (b) Community-based fishery management practices in Chilaw, the Puttalam District, including socio-economic impacts of the management measures adopted.
- (c) Community-based fishery management practices in Wathuregama, in the Galle District including socio-economic impacts of the management measures adopted.
- (d) Determination of criteria and conditions needed for introducing participatory approaches in fishery management and formulation of guidelines for facilitating development of community-based fishery management systems in Sri Lanka.
- (e) Identification of possible sites and review of their potential, and possible constraints as well as actions to be taken and preparation of action programmes.

4. PARTICIPANTS

Participants of the Workshop will be fishery policy makers and planners, fishery managers and extension officers, as well as representatives from fisheries cooperatives, NGOs, and the private sector.

5. DOCUMENTS

The following documents may be solicited from the government agencies, relevant organisations, on-going projects and external consultants.

- (a) Case studies on community-based fishery management systems (CFMS) in Chilaw and in Wathuregama.

- (b) A study on the socio-economic impacts of fishery management in Sri Lanka.
- (c) Information requirements for initiating fishery management measures.
- (d) Role of provincial, district and local government and non-governmental agencies including fisheries cooperatives in designing and implementing of fishery management plans.
- (e) Absentee boat owners and enforcement of regulatory measures for the conservation of fishery resources.
- (f) Creation of alternative employment opportunities for displaced fishermen.
- (g) Cost-effectiveness of CFMS in terms of enforcement of regulations.
- (h) Integration of promotion of CFMS in national legislation for facilitating participatory approaches in fishery management
- (i) Emerging conflicts between fisheries and tourism.
- (j) Integration of fishery management schemes in Coastal Area Management Plans.

6. EXPECTED OUTPUTS

- (a) Improved awareness and understanding among policy makers, fishery managers and fishermen of effectiveness and positive impacts of CFMS for the improvement of the state of fishery resources and the socio-economic conditions of fishermen involved. Recognition of the need to impart knowledge and experience on CFMS from successful sites to areas with similar situations.
- (b) Formulation of guidelines on procedures for CFMS plans and their implementation.
- (c) Proposals for development of CFMS at specific sites seeking external sources of finance for implementation.

7. ROLE OF FAO

- (a) Assist the Government of Sri Lanka in the preparation and organisation of the workshop.
- (b) Participation in the workshop in order to provide technical advice and fill information gaps;
- (c) Provision of a resource person from the region who will carry out a field survey and present a paper at the Workshop.

8. NATIONAL INSTITUTIONS AND DONORS TO BE INVOLVED

The Department of Fisheries and Aquatic Resources will be the focal point for the organisation and conduct of the Workshop. Close collaboration will be established with FAO/UNDP Marine Fisheries Management Project SRL/91/022 in the preparation and conduct

of the Workshop.

Representatives from relevant institutions such as the National Aquatic Resources Agency, the Ceylon Fisheries Development Corporation, the National Federation of Fisheries Cooperatives, as well as those from donor agencies and on-going fisheries projects in Sri Lanka are encouraged to participate in the Workshop.

APPENDIX C

**SRI LANKA/FAO NATIONAL WORKSHOP ON
DEVELOPMENT OF COMMUNITY-BASED FISHERY MANAGEMENT
COLOMBO, 3-5 OCTOBER 1994**

PROVISIONAL AGENDA AND TIMETABLE

MONDAY 3 OCTOBER

Morning

08:30 Registration at the Hilton Hotel, Colombo

09:00 Opening Ceremony

The Workshop will be opened with a welcome address by the Minister of Fisheries and Aquatic Resources. The statement by the UNDP Representative in Sri Lanka will follow. The FAO Representative will then address the Workshop.

09:45 Coffee break

10:15 Session 1. Socio-economic consequences of excessive fishing effort and the need for fishery management (NARA)

12:30 Lunch break

Afternoon

14:00 Session 2. Legal and institutional framework for fishery management and the role of community organisations (DOFAR)

15:30 Coffee break

16:00 Session 3. Strengthening linkages between economic activities and fisheries management (FAO)

TUESDAY 4 OCTOBER

Morning

09:00 Community-based fishery management practices

Case 1: Kattudel in Chilaw

10:30 Coffee break

11:00 Case 2: Traditional lagoon fishery in Negombo

12:30 Lunch break

Afternoon

14:00 Case 3: Madel in Wathregama

15:30 Coffee break

16:00 Case 4: Stilt fishing in Katholuwa and Ahangama

WEDNESDAY 5 OCTOBER

Morning

- 09:00 Session 5. Information needed for strategic planning of fishery management (NARA)
- 10:30 Coffee break
- 11:00 Session 6. Coastal zone management and development (USAID)
- 12:30 Lunch break

Afternoon

- 14:00 Session 7. Prospect for developing community-based fishery management in Sri Lanka (SRI/92/022)
- 15:30 Coffee break
- 16:00 Session 8. Concluding session: Recommendations and action programmes
- 17:00 Adoption of report and closing of the Workshop

APPENDIX D

SRI LANKA/FAO NATIONAL WORKSHOP ON DEVELOPMENT OF COMMUNITY-BASED FISHERY MANAGEMENT COLOMBO, 3-5 OCTOBER 1994

LIST OF DOCUMENTS

Main papers:

1. Session 1: Socio-economic consequences of excessive fishing effort and the need for fishery management (Dayaratne)
2. Session 2: Legal and institutional framework for fishery management and the role of community organisations (Atapattu)
3. Session 3: Strengthening linkages between economic activities and fishery management (Ruckes)
4. Session 4: Community-based fishery management practices
Case 1: Kattudel in Chilaw (Kurukulasuriya)
Case 2: Traditional lagoon fishery in Negombo (Jayacody)
Case 3: Madel in Wathregama (Sivakumaran)
Case 4: Stilt fishing in Katholuwa and Ahangama (Maldeniya)
5. Session 5: Information needed for strategic planning of fishery management (NARA)
6. Session 6: Coastal zone management and development (White)
7. Session 7: Prospect for developing community-based fishery management in Sri Lanka (Harrison)
8. Session 8: Guidelines for promoting community-based fishery management in Sri Lanka (Hotta)

Reference papers

9. Establishment of a monitoring system for catches of artisanal driftnet and longline fishing (Williams)
10. Absentee fishermen (Harrison)
11. Environment, tourism and development (Pietersz)
12. Fishery management and aquaculture (Piyasena)
13. Marine sanctuaries and conservation of fishery resources (NARA)
14. Displaced fishermen and their migration (Tilak Chandrasekara)
15. Changes in strategy from development to management in Southern Sri Lanka - a case in Norad development approaches (Munasinghe/ Nissanka)
16. Case study on marketing of under-sized crab/lobster and management restrictions (NARA)
17. Integration of fishery management into coastal area management plans in Sri Lanka (H.V. Fernando).

APPENDIX E

**SRI LANKA/FAO NATIONAL WORKSHOP ON
DEVELOPMENT OF COMMUNITY-BASED FISHERY MANAGEMENT
COLOMBO, 3-5 OCTOBER 1994**

INAUGURAL ADDRESS

**THE HON. INDIKA GUNAWARDENA
Minister of Fisheries and Aquatic Resources Development**

Distinguished Guests, Ladies & Gentlemen,

I am happy to be associated with this Workshop on the subject of Community-based Fisheries Management as it is very close to my heart since it is the key to our wider development goals. Sri Lanka needs stable growth and development. The fishing industry has to do its part in this national quest and we at the Ministry of Fisheries and Aquatic Resources Development are to see that this sector is allowed to contribute to these higher goals. We need to offer our domestic consumers fish at an affordable price, and for this we need more production. We need to create more employment opportunities, and this will lead us to more production. We need to invest in our fishing industry with capital and we need to invest in our fishermen with training in modern techniques, for only in this way can we raise the overall production, and importantly, the productivity of the individual fishermen. This increase in productivity is the only viable way we can more equitably distribute the fruits of development to the people and eradicate poverty in the fishing communities.

However, the development scenario is not that simple. Our aquatic resources, including fish, are a limited natural resource with open access. Unplanned, uncontrolled development will lead to abuse of our resource base. And in the end, our goals of higher production and higher productivity will be defeated. We will have failed to eradicate poverty and instead worsened it. This is why sustainable fisheries management must go hand-in-hand with fisheries development. This is a great and demanding task and we must realise that the Ministry of Fisheries and Aquatic Resources Development is not in a position to succeed at this task in isolation. We must work with the fishermen for they know the fisheries, they are there to monitor, they are the ones with the most at stake. Fisheries management, far more so than fisheries development, demands a participatory approach at the grassroots level. Only through self-regulation by the fishing communities themselves can we hope to evolve effective control over the use of these common resources.

Japan is a remarkable example where community-based fisheries management has succeeded. As far back as the ninth century AD, it has been documented how the Emperor awarded fishing territorial rights to specific fishing communities. One village near Kyoto has retained the same unchanged territory for over 900 years. Today the planning, management, and sustainable development of each community's sea tenure is in the hands of its local democratic Fisheries Cooperative Association. Through these popular organisations, the central and provincial authorities can efficiently manage the nation's fish resources. If we in Sri Lanka can learn from this and strengthen and democratise our local fishing community organisations, we too will succeed in both fisheries development and sustainable fisheries management. For our part we will introduce legislation shortly to licence all major fishing operations with a view to managing these.

It has been said that Sri Lanka is close to overfishing its resources especially in the coastal waters; we need to rethink this whole matter. It may be true that in the past we have subsidised and encouraged development of the gillnet fishery and done the same for our lagoon and coastal shrimp fisheries. Our fisheries managers, biologists and planners must examine this situation and find out the resource limitations. But my point is that we must diversify. We must modernise our offshore / deep sea fleet' with navigational and communication equipment like radios, satellite navigators and use remote sensing data. But more importantly, the offshore fleet must be mobile and we must see that there are the basic infrastructure facilities so that they can base their operations from any coastal district. There may also be opportunities to develop a deep-sea fleet that can fish in the high seas for tuna as other countries have been doing just outside our waters. Sri Lanka has also a strategic position to exploit the resources of the South Indian Ocean, where some species remain untouched. While these possibilities need to be looked into, our overriding concern must be exploitation in our EEZ and adjacent waters.

The resource density, as you well know, is richest where the sea and the land meet and it is here our immediate opportunities lie. I am not suggesting the main coastal fisheries be intensified, but to the contrary, they be diversified. Our demersal finfish are not well exploited and some larger demersals on the shoulder of the continental slope are not exploited at all. Many demersals can fetch top prices in neighbouring countries such as Singapore and Malaysia if our fishermen know how to handle them properly. We have other traditionally untouched resources in our lagoons and along our coasts such as edible oysters, mussels, clams, jellyfish, octopus, sea urchins and seaweeds which command high prices in East Asia as well as at our own tourist establishments. Even possibilities exist with our traditional catch, like tuna. If we could teach some of our fishermen to catch "Sashimi" grade Yellowfin and Bigeye Tuna for export to Singapore, Hong Kong and Japan, we would see a radical increase in the fishermen's productivity without an adverse impact on the resource base. What is needed for all of these is applied research, practical training, extension and access to capital to allow fishermen to get involved in these export-oriented activities. Through research and training at the proposed Fisheries University Institute and through the Ministry incentive programmes, I think we can see progress in this area. The viable opportunities we create will offer alternatives for poor fishermen with low productivity.

If we cooperate with the fishing community we can stop degradation of our resource base in the coastal and brackish waters by stopping environmental pollution, destructive fishing methods and overfishing. In co-operation with fishermen we can also actually enhance what is incorrectly seen as the absolute ceiling of productivity by constructing artificial reefs and sea-lagoon openings in key locations. Furthermore, we must not forget to look inland to our freshwater bodies where we have potential to create employment and increase production through capture fisheries in tanks and aquaculture in ponds. These measures will enable us to dissipate or divert pressure from stressed marine resources.

I would like to thank all of you for coming to this Workshop today and showing your interest in the future of our country's fishing and aquatic resources industry. I want to especially thank the Resident Representatives, Mr. Robert England of the UNDP and Mr. Tsukasa Kimoto of the FAO for their support for this Workshop. I hope that in the next three days we will be able to have some very constructive deliberations on the future direction of fisheries management in this country. Through these deliberations, we are sure to achieve our goals, namely, sustainable development, provision of essential animal proteins for our people and socio-economic development of fishing communities. Community-based fisheries management, if it is to succeed, must offer the fishermen concrete benefits. It must go hand-in-hand with Community-based

fisheries development. The fishing communities must be prepared for these roles, through training and through institution-building at the village level. I hope the UNDP-funded, FAO-implemented Marine Fisheries Management Project can help us to perform these duties. But we need your input first. So the awesome task set out for this Workshop is to illuminate the prospects of community-based fisheries management, to identify what hinders it and to give practical guidelines on how we can move forward and facilitate popular participation in fisheries management here in Sri Lanka.

Thank you.

APPENDIX F

SRI LANKA/FAO NATIONAL WORKSHOP ON DEVELOPMENT OF COMMUNITY-BASED FISHERY MANAGEMENT COLOMBO, 3-5 OCTOBER 1994

ADDRESS

MR. K. H. CAMILLUS FERNANDO,
Secretary, Ministry of Fisheries and Aquatic Resources Development

Rev. Sirs, Hon. Minister, Hon. Deputy Minister, FAO Rep.,
Ladies & Gentlemen, Esteemed Colleagues,

I welcome all of you to this workshop and thank you in anticipation for the hard work and fruitful discussion I know you will contribute to during the next few days. The Ministry of Fisheries and Aquatic Resources Development has been entrusted with an enormous duty, the sustainable management of one of Sri Lanka's greatest renewable resources, its fish and living aquatic resources. Thus it is not without good reason that we are going to sit down here, put our heads together and concentrate on finding a practical and pragmatic road to a system of fisheries management which is workable for Sri Lanka.

Our Ministry has been fortunate to receive UNDP funding for a Marine Fisheries Management Project that we are executing with assistance from FAO. This project will allow us to prepare our field staff for new management-oriented work, it will build public awareness on resource conservation, and it will give us the data we need to as stewards of our nation's aquatic resources. But most important, the project is to give us a functioning Fisheries Management Unit which can help the rest of us in the Ministry collect the data needed, analyse the data we have collected, and draft plans and guidelines with us so that we can implement resource-sensitive development schemes, regulations and training programmes.

The point I want you all to remember, however, is that this small unit cannot and should not be the Ministry's sole player in the field of Fisheries Management. Fisheries Management is not just another square to be added on to our organisational chart in the form of a new unit... No, it is a new way of thinking for all of us. We all must participate in Fisheries Management by thinking in new terms. We need NARA's research on fish stocks, levels of exploitation, and on opportunities for effort diversification to other species. We need the efforts of NARA, Ceynor, NIFT, and DFARD to develop, give training on and introduce environmentally-sound craft and gear. We need DFARD's and Planning Division's efforts to develop the industry in a planned, sustainable manner. We need the efforts of DFARD and CCD to protect the destruction of marine habitats. We need DFARD, NIFT and the Fisherfolk Radio to build public awareness, especially the fishing community on the importance of resource management and the cessation of destructive activities. Fisheries Management requires us to pull together and co-ordinate our activities so that one division is not issuing craft while the other is introducing a scheme to buy back the same.

With all this said on the Ministry and Fisheries Management, I will be the first one to admit that even the whole ministry united cannot do what has to be done. We do have a good field staff but they are not ever-present in the villages. Some Fisheries Inspectors cover vast areas while others have thousand of families to serve. A bigger field staff is not the most efficient solution. We must entrust a great deal of the responsibility for detailed decision-making and

enforcement to the chiefstakeholder, the fishing community. We must train the fisherfolk, serve them, and support them, because they can help us do our job properly.

So let us begin the workshop with this in mind. I remain optimistic about the prospects of Community-based Fisheries Management. We have few other avenues on which to proceed. So let us make good use of these three days and I hope this workshop will make a deep impression on each of you that you will carry back with you.

Thank you.

APPENDIX G
SRI LANKA/FAO NATIONAL WORKSHOP
ON DEVELOPMENT OF COMMUNITY-BASED FISHERY MANAGEMENT
ADDRESS

MR A.R. ATAPATTU
Director of Fisheries and Aquatic Resources
and
National Project Director, UNDP Marine Fisheries Management Project

Ladies and Gentlemen

You are gathered here today at the inauguration of this important Workshop on community-based fisheries management. This is jointly organised by the UNDP Marine Fisheries Management Project of the Department of Fisheries and Aquatic Resources and FAO.

The idea of having this workshop was conceived in 1992, when an Expert Consultation was held on the Development of Community-based Coastal Fisheries Management in Kobe, Japan. At the end of this Consultation, I requested Dr Hotta of the FAO for a Workshop in Sri Lanka in view of the importance of community participation in fisheries management. I am happy to inform you, Ladies and Gentlemen, that the FAO, through the good offices of Dr Hotta, readily accepted our request to conduct the first ever community-based marine fisheries management Workshop in Sri Lanka.

Although fisheries account for only 2% of Sri Lanka's GDP, the sector is very important in terms of employment, food supply and the generation of foreign exchange. The fisheries industry is essentially small-scale and coastal in character but steps are being taken to introduce new technologies and new types of vessels and to develop offshore/ deepsea fisheries. Among the major constraints being faced are the conflicts arising between fishermen using traditional craft and gear and those taking advantage of new methods and motorised vessels. Multiple-use problems, arising especially from tourism, have become serious issues in coastal area management. Above all, the open-access nature of most of Sri Lankan fisheries is a major impediment to more effective management of the resources and has led to serious over-fishing in certain areas. Considerable encouragement can, however, be drawn from the successful re-orientation of the fisheries co-operative movement which now gives emphasis to village-level organisation and the involvement of women. Further, the introduction of new legislation for licensing of fishing operations and declaration of fishery management areas is now under consideration.

The Workshop consists of nine sessions. There are main sessional papers and reference papers relevant to fisheries management. Resource persons have been selected carefully and they are the best available expertise in their respective fields. Since the field of fisheries management is comparatively new, it is intended to discuss Workshop papers thoroughly at the sessions with a view to examining all relevant aspects and, more importantly, with a view to determining their acceptability. This is essential as fisheries play a major role in the lives of the people of Sri Lanka.

The major emphasis during the last several decades in many countries engaging in fishing was to increase fish production. With increased fishing effort using efficient fishing gear, it was

possible to increase fish production. The unfortunate consequences of unlimited entry into open access fisheries were soon felt. Depletion of resources, lower incomes for resource users, environmental degradation, and over exploitation became evident in many fisheries, especially in the coastal and inland fisheries.

To arrest this situation, immediate remedial measures have been sought during the last few years. Many countries adopted a “top-down” method to impose regulations for control of fisheries. Legislation was enacted to control fishing activities. In most instances this did not work. With fishing communities, this approach is usually unsuccessful and unacceptable. Based on this unsuccessful experience, ways and means of rectifying the situation were given high priority, it was really during this period that the participation of the fishing communities in the management process was given serious consideration.

Community-based fisheries management is not entirely new to Sri Lanka. In several cases, where territorial use rights in fisheries (TURFs) existed, self-regulating management measures are observed. Examples have been seen in the beach-seine fishery, the stake-net fishery etc. They have been in existence for over a century. The participation of the community is also seen in the procedure followed in conflict resolution under the Fisheries Ordinance. Once the management process is formulated through the community it is comparatively easier to implement it.

We are encouraged to have with us Hon. Indika Gunawardena, Minister of Fisheries and Aquatic Resources Development today at the inauguration of this Workshop. We have seen the Hon. Minister's concern over the participation of the community in the management process. In fact, it was just a few days back in Negombo and Kirinda that he declared the importance of the participation of the fishing communities in the planning and management of fisheries.

While welcoming the Hon. Minister, Hon. Deputy Minister, Distinguished Guests, Participants and Colleagues, I take this opportunity also to thank especially the UNDP and FAO for providing financial assistance for the Workshop and Dr Hotta of the FAO, Rome for providing us with the first National Workshop and for his untiring efforts in the preparation of the programme and a project proposal. I also wish to thank Mr Robert England, the Resident Representative of the UNDP for his support and Mr Kimoto, Resident Representative of the FAO, for all his assistance. I wish to thank all those who helped to make this Workshop a success.

Thank you.

APPENDIX G

SRI LANKA/FAO NATIONAL WORKSHOP ON DEVELOPMENT OF COMMUNITY-BASED FISHERY MANAGEMENT

STATEMENT FOR THE INAUGURATION

TSUKASA KIMOTO

FAO Representative

His Lordship Reverend Dr Malcolm Ranjith, The Honourable Indika Gunawardena, Minister of Fisheries and Aquatic Resources Development, Distinguished Guests, Ladies and Gentlemen,

First of all I would like to thank you, Sir, Dr Ranjith and Your Excellency, Minister Gunawardena, for your personal presence here this morning at the inauguration of this Workshop. The Honourable Minister, Sir, you have given us the honour not only by your presence this morning but also by your leadership and guidance, and by your personal involvement in the organisation of the Workshop. We are therefore most and sincerely grateful to you, Sir.

This is a joint Workshop organised by the Government of Sri Lanka and FAO. We, FAO, feel very fortunate that we have been given this opportunity to work together with the Ministry of Fisheries and Aquatic Resources Development, particularly with the Secretary, Mr Camillus Fernando, Director of the Department of Fisheries and Aquatic Resources, Mr Anton Atapattu, and their staff. We are satisfied with, and in fact grateful to, their technical competence and devotion which they have demonstrated in organising this Workshop.

I also take this opportunity to thank the Government of Japan and UNDP for their financial support of the organisation of this Workshop, and look forward to their continuing support for future undertakings which might follow this Workshop.

I believe that the Workshop is a timely one because the theme of the Workshop, namely "Community-based Fishery Management", coincides with the fundamental philosophy of the People's Alliance, that is, the involvement of the people, say, fisherfolk, individually or through cooperatives, for the aspirations of the nation to achieve a higher stage of economic development. I am confident that through lively deliberations and discussions by the participants, the Workshop will clearly identify the issues confronting us and indicate possible policy alternatives which we need to follow. As for FAO, we will be ready to follow up, in collaboration with the Government of Sri Lanka and other donor partners, whatever sensible recommendations the Workshop might put forward.

The deliberations, conclusions and recommendations of the Workshop will be widely shared by the Member Nations of FAO, particularly the countries in this part of the world, through FAO's publications network. I am sure that the participants' deliberations and recommendations will be highly appreciated by the policy-makers of this Government and other nations.

With this in mind, I wish to welcome you all, the participants, and thank you in advance for your constructive participation and contribution. I wish you all a successful Workshop.

Thank you.