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OPENING OF THE SESSION

1. The Indian Ocean Fishery Commission Executive Committee for the Implementation of the International Indian Ocean Fishery Survey and Development Programme held its Sixth Session on 17 and 18 October 1977 at the Central Institute of Fisheries Technology, Cochin, India. Thirteen nations participated in the Session, including seven nations that are members of the Executive Committee. A list of delegates and observers is given in Appendix C to this report.
2. The Session was chaired by Mr. N. Odero (Kenya), who made a brief address welcoming the delegates. Mr. H. Watzinger, Assistant Director-General (Fisheries), FAO, made a statement giving a general indication of the work before the Executive Committee.

ADOPTION OF THE AGENDA AND ARRANGEMENT FOR THE SESSION

3. The Committee adopted the agenda reproduced in Appendix A. The documents which were available to the Committee are listed in Appendix B.

INTERNATIONAL INDIAN OCEAN FISHERY SURVEY AND DEVELOPMENT PROGRAMME

(a) Progress report of the Programme Leader

(b) Programme reports

4. The Programme Leader of the Indian Ocean Fishery Survey and Development Programme introduced his progress report for the period between the Fifth and the Sixth Session of the Executive Committee. It was pointed out that, since the last session of the Executive Committee, the Second Phase of the Programme was completed as of 31 December 1976. Early in 1976 a Review and Evaluation Mission recommended continuation of the Programme into a Third Phase which was endorsed by the Executive Committee meeting in April 1976. UNDP approved the Third Phase of the Programme, but for financial reasons its budget was limited to U.S.\$ 2.5 million for three years. The Programme had received additional funds from UNDP for use in 1977 and some of this money was being used to organize fish quality assurance programmes for member countries who wished to have such programme and for missions to countries on request to look into the implications of EEZ.
5. Staff changes which occurred between the meetings of the Executive Committee were reported. Three staff members left the Indian Ocean Programme, i.e. Messrs. A. Labon, S. Hayasi and M. Nikolic and at the present time the authorized core staff of the Indian Ocean Programme comprises five professional officers. For 1978 the Programme would have two new posts and UNDP had already authorized advanced recruitment for such posts. The first of the posts for a Small-scale Fishery Experts was filled by Mr. L.O. Engvall while the other post of a Training Specialist is yet to be filled.
6. The North Arabian Sea Survey was completed by the end of 1976 and the Programme Leader expressed his appreciation of the effective cooperation the Programme received from the Institute of Marine Research in Bergen and particularly from the Director of that Institute, Dr. G. Saetersdal, and the Deputy Director, Mr. O. Nakken. After completion of the North Arabian Sea Survey, the R/V "DR. FRIDTJOF NANSEN" remained in the area during 1977 doing survey work for Pakistan and Mozambique under bilateral arrangements.
7. The Indian Ocean Programme had planned a Workshop, with Norway funding on the results of the North Arabian Sea Survey to be held in Karachi just prior to the IOFC meeting, but due to many other activities in the area, nominations of participants were difficult for the Member Governments. The Government of Pakistan has kindly agreed to a rescheduling of the Workshop for the period 16 to 28 January 1978. Great importance was attached to the Workshop by the Programme as it would provide a good opportunity for summing up the findings of the resource survey, estimation of abundance of fish stocks in the area and consideration of development opportunities.

8. Reference was made to the East African Fisheries Resources Survey and the proposed Regional Survey of Fishery Resources, their Development and Utilization - South Indonesia/Northwest Australia.
9. The kind of assistance offered by the Indian Ocean Programme was described. These included stock assessment, management of resources, improvement of statistics as well as assistance in development activities in the form of feasibility studies for investment, the preparation of development plans and formulation of development projects.
10. The Indian Ocean Programme was becoming increasingly involved in activities of multi-lateral funding agencies as well as activities of bilateral aid agencies. Examples of this type of activity were given - for instance a recent mission to Somalia which decided to move directly into commercial development as a follow-up to the resources survey carried out by the R/V "DR. FRIDTJOF NANSEN". On request the Programme had formulated a Regional Fishery Survey and Development Project for countries bordering the Red Sea and which under the auspices of the UNDP had been accepted by the OPEC Special Fund for funding in the amount of some four million U.S. dollars.
11. The Project Proposal "Accelerated Development of Artisanal Fisheries" from Burma to Pakistan proposed for submission to CIDA was discussed. It was pointed out that this project did not overlap or compete with existing small-scale fishery projects in that area. It was supported by Pakistan, Sri Lanka and Bangladesh while responses were awaited from India and Burma. CIDA has not yet given its agreement to fund the project.
12. Although the Programme did not have a Training Officer, it was involved in setting up projects dealing with training. Furthermore, the fishery resources surveys referred to above had a training element built into them. With reference to the Sub-regional Training Centre located in Kuwait, it was pointed out that difficulties in recruiting Arab speaking instructors had virtually been overcome and the main problem at the present time was to secure suitable trainees and counterpart instructors for the Centre.
13. The Committee expressed its appreciation of the work done by the Indian Ocean Programme and its satisfaction with the progress achieved. The delegation of the U.S.A. pointed out that his Government had traditionally supported the concept of regional programmes and regarded the Indian Ocean Programme as a successful programme in that category.
14. The delegate of India reiterated the special interest his country had in a follow-up of the programme activities and pointed out that the best yardstick for the measurement of success was the investment that would follow. Recently, World Bank Missions had been visiting countries more frequently to identify investment projects in fisheries. Often questions asked by those Missions could not be answered in all details by the country concerned and there was therefore a great need for the Indian Ocean Programme to provide basic data and information required for the formulation of investment projects. He pointed out the importance of close association between the World Bank, the FAO Investment Centre and the Fisheries Department of FAO. He stressed the complexity of the problems of small-scale fisheries involving technical and social problems in addition to economic aspects. National activities in this field would be undertaken as a follow-up to FAO projects in the area.
15. With reference to fishery quality assurance work being undertaken, the Committee emphasized the importance of improving products popular in the countries rather than developing new ones. Cost of production and price of such products would have to be borne in mind in any activities designed for the member countries.
16. It was noted that the Indian Ocean Programme as such did not have sufficient funds to provide for the coordination of the South Indonesia/Northwest Australia Fishery Survey and that UNDP had been requested to supplement the IOP budget for this purpose. The Indian Ocean Programme had provided some funds for the initial phase of the survey and these were supported by a much appreciated contribution from the City of Bremen.

17. With respect to statistics, several delegates expressed the view that countries were anxious to establish statistical units but noted that some needed assistance to strengthen, update and reorientate their existing fishery statistical units. It was pointed out, however, that the Indian Ocean Programme had done basic work required for the improvement of statistics by designing simple but adequate statistical schemes and it was for governments to implement such schemes. The real difficulty, it was felt, was shortage of funds which were needed for the implementation of statistical programmes.

(c) Progress report on:

(i) North Arabian Sea Fisheries Survey and Follow-up Workshop

18. The document IOFC:X/6/77/5 and Inf. 5, 6 and 8 were introduced. The R/V "DR. FRIDTJOF NANSEN" carried out the fishery resources survey of the North Arabian Sea from January 1975 until December 1976 during which time she had made six cruises under the survey programme. The survey covered the area from Somalia through the Gulf of Oman to the Pakistan-India border. The preliminary results of the survey were submitted to the countries concerned in the individual cruise reports. The scientific management of the survey was subcontracted to the Institute of Marine Research in Bergen and the scientific team from that Institute carried out the work. Norway had provided funds in trust to FAO to cover the management costs. The vessel had been supplied by Norway which had covered 60 percent of the operational costs. Forty percent of the costs had been borne by the Indian Ocean Programme.

19. On-the-job training for scientists and technicians from the area had been provided. In 1975 six trainees from Kenya, People's Democratic Republic of Yemen and Sri Lanka had worked on board the R/V "DR. FRIDTJOF NANSEN" and in 1976 five from Iran, Kenya and Pakistan had participated in the survey. Four main areas of small pelagic fish concentration had been identified during the survey. Details of the localities, size of stocks, catch rates, were to be found in the final report of the survey (IOFC:X/6/77/Inf. 8). The total biomass of small pelagic fish within the survey area was estimated at between 1.4 and 2.2 million tons. In addition, the survey had given an approximate figure for the biomass of some 100 million tons of meso-pelagic fish in the North Arabian Sea.

20. To supplement the survey programme carried out by the R/V "DR. FRIDTJOF NANSEN" the Government of Japan had made available the R/V "SHOYO MARU" for a survey of Pakistan waters in October-December 1975 and in 1976.

21. In the discussions which ensued some delegates considered the work of the North Arabian Sea Survey an excellent contribution of modern science to the estimation of fishery resources on which fishery development could be based. The acoustic survey method was considered particularly suitable for tropical and sub-tropical areas and perhaps other areas in addition to the North Arabian Sea should be surveyed using the same technique. It was also noted that the huge biomass of meso-pelagic fish identified by the survey could not be used until more work was done to develop suitable fishing and fish utilization technology for those species. The Department of Fisheries should devote particular attention to this problem.

22. The Committee noted that several funding agencies had shown an interest in developing a fish meal fishery based on identified stocks of small pelagic species. It further noted that small pelagic fish could be used for fish meal. At the present level of fish utilization technology this would be an appropriate way of using the resource. The example of the Peruvian anchovy fishery was cited. If that resource had not been used for reduction it would have remained untapped for many years because it would have been impossible to use the bulk landings directly for human consumption. It was felt that the only way to absorb these resources at the moment was by fish meal. This had an excellent international market and could earn much foreign currency. The establishment of a fishery for fish meal could also generate the funds needed for the development of fish canning and the preparation of other types of product. The ultimate aim should, however, remain the maximum utilization of all types of fishery resource for direct human consumption.

23. The Committee noted with concern that some new developments in the area seemed to be starting without sufficient regard to the abundance of resources, suitability of fishing vessels, or availability of local crews.

24. The Committee was informed by the Assistant Director-General, Fisheries Department, of activities planned by his Department for 1978 in the field of bulk handling of small pelagic fish and the development of low cost products.

25. The delegate of France drew attention to the work carried out by a French vessel in the northern part of the Arabian Sea in the framework of bilateral relations between his country and Iran and Pakistan. Survey work had been carried out off the coast of Pakistan and gross yields off the continental shelf varied between 200 kg per hour of trawling at 130 metres to 2 300 kg per hour at 50 metres. Off Iran good yields were obtained in certain areas although in the Gulf of Oman resources were less abundant and they were being exploited by foreign trawlers of the long distance fleet. In general, resources were less abundant than off Pakistan.

(ii) East African Fisheries Survey

26. An account of results of the first half of the East African Fisheries Survey and a status report on the second half of the survey were presented to the Committee in document IOFC:X/6/77/6. The R/V "PROFESSOR MESYATSEV" was covering an area from the equator to 27° south including the fishing banks of Mauritius and the Seychelles. The survey was providing opportunities to neighbouring countries for shipboard training in resource research techniques and stock assessment work. During the first part of the survey seven participants from the coastal countries had taken part in the work. Details of the survey were given in documents IOFC:X/6/77/Inf. 7 and Addendum 1. It was explained that the vessel was equipped with some of the same type of acoustic instruments as the R/V "DR. FRIDTJOF NANSEN" and therefore comparability of data from the two surveys was possible. A follow-up to the East African Survey was under consideration. The Committee noted that some of the countries from East Africa were setting up research establishments which could monitor the resources after the completion of the survey in question.

(iii) Regional Fisheries Survey - South Indonesia/Northwest Australia

27. The progress made so far on the preparation of the Regional Fishery Survey - South Indonesia/Northwest Australia was reported to the Committee. The proposal had been redesigned and now consisted of three modules to be coordinated by the Indian Ocean Programme. Module No. 1 for implementation by Indonesia was fully sponsored by the Government and had already involved the building of a new vessel for this survey. Scientific management of the work would rest with the Marine Fishery Research Institute of Indonesia. Module No. 2 was to be sponsored under bilateral assistance to Indonesia from the Federal Republic of Germany using a charter vessel possibly from the FAO/UNDP vessel pool. Module No. 3 was to be supported by the Government of Australia and carried out by Australian fishery agencies. It would cover the southern part of the Timor Sea and the Northwest Australia shelf. Coordination would be provided through the Indian Ocean Programme by the managers of the individual modules and by a senior officer of the Indian Ocean Programme. Furthermore the Indian Ocean Programme would provide automatic data processing facilities and would print technical papers.

28. The delegate of Indonesia informed the Committee that Modules 1 and 2 had already been approved by the National Planning Board and expressed the hope that support from the Federal Republic of Germany would soon be forthcoming. He also suggested that a meeting at an early date of representatives of Australia, Indonesia and the Indian Ocean Programme would be advisable to formulate a detailed working plan for the survey.

29. With regard to Module No. 3 the delegate of Australia pointed out that the Government of Australia was not yet in a position to commit funds to the project. Attempts were being made to ensure funding from the forthcoming fiscal year. It was pointed out that fishing carried on off Northwest Australia by a foreign fleet could provide data of interest to the

project. He supported the suggestion made by the delegate of Indonesia to hold a meeting of all parties concerned with the survey at an early date.

30. It was agreed that the proposed meeting should be held without delay. The hope was expressed that the Government of Australia would soon be in a position to give a clear indication of their support for the project.

31. The Committee gave its full support to the project and noted that it was part of a network of similar activities covering the Indian Ocean including the Gulf area, the Arabian Sea, the waters off East Africa and the Bay of Bengal.

(iv) Regional Fisheries Survey and Development Project (Bahrain, Iran, Iraq, Kuwait, Oman, Qatar, Saudi Arabia, United Arab Emirates)

32. The Committee was referred to document IOFC:X/6/77/8 and was informed of the background of the project (REM/71/278). The original project proposal had been formulated in January 1972, and Qatar had offered to host the project and subsequently out of the Qatar I.P.F. had funded a post and provided facilities for preparatory work and the completion of a Project Document.

33. The Project Document which was for a 3½ year project had been signed by all eight participating countries, UNDP and FAO as Executing Agency in Doha, Qatar, on 9 April 1975. As of July 1977, a fleet of four locally provided vessels were implementing the demersal survey whilst one locally provided vessel and the project vessel were implementing the pelagic survey.

34. The delegate of Bahrain expressed his appreciation of the progress made so far. He brought to the attention of the Committee the lack of pertinent national statistical data, and hence the need for early appointment of the project statistician to advise on the improvement of national statistical systems.

(v) Sub-Regional Training Centre (Kuwait)

35. The Committee noted with satisfaction that the Trust Fund Training Centre Project in Kuwait (REM/11 GLF) of which the activities and objectives were closely related and complementary to those of the UNDP/FAO Regional Fisheries Survey and Development Project (REM/71/278) based in Qatar, was fully operational. The first group of trainees had been enrolled in the Centre.

36. In regard to the desirability of institutional fishermen's training in general, the Committee agreed that it should be considered in relation to the stages of the development of the fishing industry and the projected requirements.

37. The delegate of Bahrain stressed the need for selected short-term courses for fishermen and fishery workers in developing fisheries.

38. The delegate of India described briefly fishermen's training in India and suggested that the Programme should also assist existing national training institutes especially during their formation period and where appropriate later to cater to regional needs.

39. The delegates of U.K., Australia and U.S.A. gave brief descriptions of fisheries training in their respective countries and indicated that formalized fishermen's training had not been part of the development of their fishing industries. The increasing technical complexity of fisheries had led to the recognition that formalized training was desirable. The Committee recognized the need for fisheries academic institutions.

40. The Director of the FAO Fishery Industries Division informed the Committee of the collaborating role of the Fisheries Department in providing training expertise support to the Programme and through it to member countries. He felt that fishermen's training needs

depended on situations in the country concerned and therefore both formalized and practical training approaches were required. This should be taken into account when filling the Training Expert post in the Programme.

(vi) Bay of Bengal Fisheries Development Programme

41. The Committee considered document IOFC:X/6/77/10 which was the Project Request submitted to SIDA. The Committee was informed that the Project would be based in Madras, India. The Programme Leader explained the background circumstances that had led to the changing of the Project title to "Project for the Development of Small-Scale Fisheries in the Bay of Bengal" and to the placing of more emphasis on the technological approach rather than on socio-economic aspects.

42. The delegate of India stated that solutions to the problems of small-scale fisheries in the Bay of Bengal area would require making more efficient use of existing traditional technology and where necessary introducing appropriate technological improvements. He felt that this approach would bring momentum to fisheries development and in some instances lead to large-scale fisheries.

43. One delegation stressed the importance of the early provision of landing facilities and the start of post-harvest activities to stimulate small-scale fisheries development.

44. The delegate of Sweden informed the Committee that the Project Request had already been passed by the SIDA Board of Directors and was presently under consideration for funding approval.

45. In response to points raised by delegates during the discussion, the Programme Leader indicated that in implementing activities, the project would promote an integrated approach; various demonstration technological inputs would, insofar as possible, be provided, not as isolated inputs but as integral support components of a comprehensive development activity.

46. The Committee was informed that it was hoped to take advantage of the present IOFC Session to hold an informal inter-governmental consultation on this project among the five participating countries and the delegate of Sweden.

47. The Committee noted with approval the Project Proposal and expressed the hope that the implementation of the Project could begin in early 1978.

(vii) Seminars and Workshops

48. The Committee considered document IOFC:X/6/77/11. Its attention was drawn to the list of Workshops and Seminars approved for 1977-78 as well as those under preparation and consideration.

49. The Committee expressed its appreciation of this useful list and asked that it should be expanded to cover other fishery activities in the region and should continue to be produced in the future.

50. The Committee noted with appreciation the invitation from the delegate of Indonesia for the Programme to hold the proposed Regional Training Centre on Coastal Aquaculture in Indonesia after April 1978.

FUTURE ACTIVITIES

51. The Committee was informed by the Programme Leader that within the present budget frame the future activities of the Programme would be as listed in the Project Document for Phase III. It was expected that there would be increasing requests for services of the Programme staff from member countries as well as from multinational funding agencies.

52. In view of recent development in the regime of the sea and their implications for fisheries, the Programme proposed to assess the effects of the establishment of the extended economic zone (EEZ) in the Indian Ocean Programme area by a series of multi-disciplinary missions. The Committee was informed that in 1977 there would be a mission to East Africa and another to Asia.

53. The Director of the Fishery Industries Division stated that at its 11th Session in April 1977, the Committee on Fisheries had asked the Fisheries Department of FAO to formulate a programme to assist developing countries in making use of their economic zones. The Department had already started to work on the preparation of such a programme. The proposed Indian Ocean Programme missions would contribute to that effort.

54. The Committee expressed its support for the Programme's involvement in EEZ studies and suggested that pre-investment studies should be included.

55. The Committee endorsed the proposed future activities of the Programme.

OTHER MATTERS

56. The Assistant Director-General, Fisheries Department, drew attention to a proposal to move the headquarters of the Indian Ocean Programme to the IOFC region. This should be seen within the context of the progressive decentralization of FAO activities and the proposed regionalization of FAO fishery bodies, as already discussed and approved by the Committee on Fisheries and endorsed by the FAO Council. It was likely that these proposals would be approved by the FAO Conference in November 1977 as part of the proposed Programme of Work and Budget for 1978-79.

57. The proposal to move the Indian Ocean Programme should be seen as part of the new policy established by the Director-General to increase FAO presence and work in the field and to involve the Organization directly in developmental activities in member countries, an example being through the new Technical Co-operation Programme.

58. In the longer term, the question of a regional base for the Indian Ocean Fishery Commission would arise and the possibility to combine it with the Indian Ocean Programme, which could thus support the secretariat for the Commission. However, the need for a continued contribution by the technical divisions of the Department of Fisheries to the work of the Indian Ocean Programme was stressed. Some delegations drew attention to the fact that decentralization must not result in weakening FAO Headquarters. They also drew attention to the cost of the operation which was an important factor.

59. All that could be said at the moment, was, that FAO agreed in principle to the movement of the Indian Ocean Programme Headquarters to the region. It was expected that a definite decision would be reached some time in 1978.

DATE AND PLACE OF THE NEXT SESSION

60. The Committee agreed that its seventh session should be held at the same time as the Committee on Fisheries in June 1978 in Rome. This should facilitate attendance by delegates.

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APPENDIX A

AGENDA

1. Opening of the session
2. Adoption of the agenda and arrangements for the session
3. International Indian Ocean Fishery Survey and Development Programme
 - (a) Progress report of the Programme Leader
 - (b) Programme reports
 - (c) Progress reports on:
 - (i) North Arabian Sea Fisheries Survey and Follow-up Workshop
 - (ii) East African Fisheries Survey
 - (iii) Regional Fisheries Survey - South Indonesia/Northwest Australia
 - (iv) Regional Fisheries Survey and Development Project (Bahrain, Iran, Iraq, Kuwait, Oman, Qatar, Saudi Arabia, United Arab Emirates)
 - (v) Sub-Regional Training Centre (Bahrain, Iran, Iraq, Kuwait, Oman, Qatar, Saudi Arabia, United Arab Emirates)
 - (vi) Bay of Bengal Fisheries Development Programme
 - (vii) Seminars and Workshops
4. Future activities
5. Other matters
6. Date and place of the next session
7. Adoption of the report

LIST OF DOCUMENTS

IOFC:X/6/77/1	Provisional agenda
IOFC:X/6/77/2	Annotated provisional agenda
IOFC:X/6/77/3	Provisional timetable
IOFC:X/6/77/4	Progress report of the Programme Leader
IOFC:X/6/77/5	Progress report on the North Arabian Sea Fishery Resource Survey and Follow-up Workshop
IOFC:X/6/77/6	Progress report on the East African Fishery Resource Survey
IOFC:X/6/77/7	Progress report on Regional Survey of Fishery Resources, their Development and Utilization - South Indonesia/North-west Australia
IOFC:X/6/77/8	Progress report of the Regional Fishery Survey and Development Project (REM/71/278/B/01/12)
IOFC:X/6/77/9	Progress report on the Sub-regional Fisheries Training Centre, Kuwait (REM/11 GLF)
IOFC:X/6/77/10	Project for the Development of Small-scale Fisheries in the Bay of Bengal
IOFC:X/6/77/11	Workshops, Seminars and Training Centres in the IOP area
IOFC:X/6/77/Inf.1	List of documents
IOFC:X/6/77/Inf.2	Information for participants
IOFC:X/6/77/Inf.3	List of delegates and observers
IOFC:X/6/77/Inf.4	Round Table Discussion on Regional Approach to Fishery Development - IOFC/DEV/77/42
IOFC:X/6/77/Inf.5	Summary Report on Cruise of the R/V "SHOYO MARU" in the North Arabian Sea, 1976 - IOP/TECH/76/11
IOFC:X/6/77/Inf.6	Summary Report on Cruise of the R/V "SHOYO MARU" in the North Arabian Sea, 1977
IOFC:X/6/77/Inf.7	Interim Report on Cruises 1 and 2 of R/V "PROFESSOR MESYATSEV"
IOFC:X/6/77/Inf.7, Add.1	Preliminary findings from the cruises III and IV of the East African Fishery Resource Survey by R/V "PROFESSOR MESYATSEV"
IOFC:X/6/77/Inf.8	Final Report - Survey Results of "DR. FRIDTJOF NANSEN" - Pelagic Fish Assessment Survey North Arabian Sea
IOFC:X/6/77/Inf.9	Progress report of the Programme Leader - IOFC:X/5/76/4
IOFC:X/6/77/Inf.10	Report of the Fifth Session of the IOFC Executive Committee

APPENDIX C

LIST OF DELEGATES AND OBSERVERS

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Meetings Officer	Myrtha Poblete-de la Fuente
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REPORT
of the
sixth session of the
INDIAN OCEAN FISHERY COMMISSION
Executive Committee for the Implementation
of the International Indian Ocean Fishery
Survey and Development Programme
Cochin, India, 17-18 October 1977

FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS

Rome, November 1977

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