

REPORT

of the

FOURTH SESSION OF THE IPFC/IOFC JOINT WORKING PARTY OF EXPERTS
ON INDIAN OCEAN AND WESTERN PACIFIC FISHERY STATISTICS

Colombo, Sri Lanka, 25-28 October 1976

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PREPARATION OF THIS REPORT

At its First Session in Rome, 16-20 September 1968, the Indian Ocean Fishery Commission (IOFC) decided to propose to the Indo-Pacific Fisheries Council (IPFC) the establishment of a joint working party to stimulate the development of fishery statistics within the Indo-Pacific Region. The Council, at its Thirteenth Session held in Brisbane, 14-25 October 1968, agreed to this proposal.

The Working Party has since then met four times. These sessions are as follows:

First Session, Bangkok, Thailand, 1-5 December 1969: *FAO Fisheries Reports No.85*
 Second Session, Bangkok, Thailand, 13-17 December 1971: *FAO Fisheries Reports No.120*
 Third Session, Jakarta, Indonesia, 25-30 October 1974: *FAO Fisheries Reports No.157*
 Fourth Session, Colombo, Sri Lanka, 25-28 October 1976: The present document is the
 Report of this Session

Statements in this report do not imply the expression of any opinion whatsoever on the part of the Food and Agriculture Organization of the United Nations concerning the legal or constitutional status of any country, territory or sea area, or concerning the delimitation of frontiers.

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1. PROCEDURAL AND ORGANIZATIONAL MATTERS

1.1 The Fourth Session of the IPFC/IOFC Joint Working Party of Experts on Indian Ocean and Western Pacific Fishery Statistics took place from 25 October through 28 October 1976 at the Bandaranaike Memorial Conference Hall, Colombo, Sri Lanka.

1.2 A list of the members of the Working Party and of the other participants in the Fourth Session is given in Appendix III.

1.3 Mr. M. Unar, nominated at the preceding session, acted as Convener and Mr. I. Yamanaka as Vice-Convener.

1.4 The Working Party adopted the Agenda presented as Appendix I.

1.5 The documents presented to the Fourth Session of the Working Party are listed in Appendix II.

1.6 The Working Party appointed the following rapporteurs:

Agenda Item 1:	} Mr. L.P.D. Gertenbach
Agenda Item 2:	
Agenda Item 3:	
Agenda Item 4:	
Agenda Item 5:	} Mr. S.K. Banerji
Agenda Item 6:	
Agenda Item 7:	
	Dr. G. Murphy
Agenda Item 8:	Mr. L.P.D. Gertenbach

2. DEMARCATION OF BOUNDARIES OF FISHERY STATISTICAL AREAS IN THE INDIAN OCEAN AND WESTERN PACIFIC

2.1 The boundary between the Western Indian Ocean (Major Fishing Area 51) and the Antarctic Indian Ocean (Major Fishing Area 58)

2.1.1 The Working Party considered document IPFC/IOFC:ST4/76/3D, in conjunction with document IPFC/IOFC:ST4/76/3A, in which it was proposed to move the boundary separating Major Fishing Areas 51 and 58 northwards from 50°00' South Latitude to 40°00' South Latitude.

2.1.2 The Working Party noted the proposal endorsed by the meeting of the SCAR group of specialists on the living resources of the Southern Ocean, held in Woods Hole, USA, in August 1976, that the southern boundary of Area 51 should be moved north from 50°00' South Latitude to 40°00' South Latitude. This would ensure that the catches round Kerguelen, and other sub-Antarctic islands would be included in Area 58. The group agreed with the intention of their proposal but it was felt that the move to 40°00' South Latitude was too great, since some of the fishing grounds of the southern bluefin tuna would then be included in Area 58. A dividing line at 45°00' South Latitude would be sufficient to include Kerguelen and other islands in the Southern area.

2.1.3 The Working Party therefore recommended that the southern boundary of the Western Indian Ocean should be moved, and that it should be at 45°00' South Latitude.

2.1.4 It further suggested that it would be more appropriate to refer to the Southern Area 58 as Southern Ocean (Indian Ocean sector) rather than Antarctic since it included the sub-Antarctic. This northward shift in the southern boundary of the Western Indian Ocean obviates the need for maintaining a separate Sub-area 8.1 and it is recommended that the waters of this former sub-area lying between 40°00' and 45°00' South Latitude and between 30°00' and 40°00' East Longitude be included in Division 8.2. Division 8.1 (called the

Marion-Edward Division) should now be eliminated from all descriptions and charts of the Western Indian Ocean (see Section 2.4.2 on page 3 and Appendix 2 of Documents IPFC/IOFC:ST4/76/2C and Section 1, paragraph 1.4 and Chart 4 of IPFC/IOFC:ST4/76/3B).

2.2 Revision of the boundaries of the statistical area covering the waters around Sri Lanka

2.2.1 The Working Party considered the proposals made in Document IPFC/IOFC:ST4/76/3E and agreed that a new division (4.1) forming part of Sub-area 4 of Major Fishing Area 51 (Western Indian Ocean) should be established.

2.2.2 The Working Party recommended that the boundaries of this new Division 4.1 should be as follows:

A rhumb line drawn in a northeasterly direction from Point Calimere on the east coast of India to a point at $82^{\circ}00'$ East Longitude at $11^{\circ}00'$ North Latitude, thence due east to $85^{\circ}00'$ East Longitude, thence due south to $3^{\circ}00'$ North Latitude, thence due west to $76^{\circ}00'$ East Longitude, thence due north to $7^{\circ}00'$ North Latitude, thence along a rhumb line in a northeasterly direction to the coast of India where the boundary between the States of Kerala and Madras meet at the sea, thence in a northeasterly direction along the Coast of India to the original point at Point Calimere.

2.2.3 The Working Party noted that the introduction of this new Division 4.1 within Sub-area 4 of Major Fishing Area 51 requires a revision of the present description of that part of the boundary between the Western Indian Ocean (Major Fishing Area 51) and the Eastern Indian Ocean (Major Fishing Area 57) lying north of $3^{\circ}00'$ North Latitude. The boundary separating Major Fishing Areas 51 and 57 should now be described as follows:

A line drawn northwards from $45^{\circ}00'$ South Latitude, along $80^{\circ}00'$ East Longitude to $3^{\circ}00'$ North Latitude, thence due east to $85^{\circ}00'$ East Longitude, thence due north to $11^{\circ}00'$ North Latitude, thence due west to $82^{\circ}00'$ East Longitude, thence in a south-westerly direction to Point Calimere on the east coast of India.

2.2.4 The Working Party also considered the proposal to transfer this new statistical division, covering the waters around Sri Lanka, from the Western Indian Ocean (Major Fishing Area 51) to the Eastern Indian Ocean (Major Fishing Area 57) but concluded that it should, with its amended boundaries, remain part of the Western Indian Ocean (Major Fishing Area 51).

2.3 Revision of the boundary between Major Fishing Area 71 (Western Central Pacific) and Major Fishing Area 61 (Northwestern Pacific)

2.3.1 The participants from the FAO/SCS presented various proposals for amending and improving the boundary, in the vicinity of Hainan Island, between Major Fishing Area 71 (Western Central Pacific) and Major Fishing Area 61 (Northwestern Pacific).

2.3.2 Several alternative solutions were considered to avoid drawing this boundary all along $20^{\circ}00'$ North Latitude from $175^{\circ}00'$ West Longitude to the coast of Hainan and thereby divide important shelf fisheries in the vicinity of Hainan.

2.3.3 The Working Party was of the opinion that the boundary between Major Fishing Areas 61 and 71 near Hainan Island could be conveniently established at or near $15^{\circ}00'$ North Latitude because in that locality the continental shelf is particularly narrow and the demersal fisheries less important further north or south. This $15^{\circ}00'$ line is also consistent with one of the general principles (for drawing the boundaries between Major Fishing Areas for statistical purposes) established by the Working Party at its Second Session.

2.3.4 The Working Party accordingly recommended that between $115^{\circ}00'$ East Longitude and $175^{\circ}00'$ West Longitude, the present boundary line remains as drawn along $20^{\circ}00'$ North Latitude.

2.3.5 The Working Party also recommended that West of 115°00' East Longitude the line is drawn as follows:

From a point at 20°00' North Latitude and 115°00' East Longitude the line is drawn due south along 115°00' East Longitude to 15°00' North Latitude, thence due west to 110°00' East Longitude and thence further westwards to the coast of the Asian Mainland.

2.3.6 The Working Party recommended that FAO consult with the Socialist Republic of Vietnam on the precise drawing of this line westward from the point at 15°00' North Latitude and 110°00' East Longitude to the Asian Mainland taking into account geographical and administrative boundaries.

2.4 Other boundary issues in the region

2.4.1 The Working Party noted that the boundary between Sub-areas 2 and 3 of Major Fishing Area 71 (Western Central Pacific) possibly requires some clarification when drawn along 115°00' East Longitude further south than 6°00' North Latitude before reaching the coast of the Island of Borneo. The Working Party recommends that FAO/SCS secretariat, in consultation with the governments concerned, establish a precise description of this boundary in the vicinity of Labuan Island.

2.4.2 The Working Party noted that Singapore has informed FAO that it is agreeable to establishing the boundary between Sub-areas 1 and 2 of Major Fishing Area 71 (Western Central Pacific) as described in section 2.4.4 on page 6 of the Report of its Third Session. The Working Party noted that Malaysia is still to express its agreement to this proposal. In noting the remarks in paragraph 2.4 and Appendix 4 of the document IPFC/IOFC:ST4/76/3G the Working Party suggested that the Secretariat of the FAO/SCS should discuss these issues with the two countries concerned to arrive at a mutually acceptable and precisely described boundary line between Sub-areas 1 and 2 of Major Fishing Area 71.

2.5 The introduction of codes for graticular quadrangles

2.5.1 The Working Party received an explanation of the system developed by FAO for worldwide use to code quadrangles based on the graticule, using the latitudinal and longitudinal descriptors. These details, extracted from the Reports of the Seventh (1971) and Eighth (1974) Sessions of the Coordinating Working Party on Atlantic Fishery Statistics (CWP), are reproduced in Document IPFC/IOFC:ST4/76/3C. The Working Party recommends the use of this coding practice by all national and regional programmes concerned with the identification of statistical quadrangles based on the graticule.

2.6 The timing of the implementation of these aforementioned boundary changes

2.6.1 The Working Party noted that the old boundaries will be maintained in the World Chart to be published in Volume 40 of the Yearbook of Fishery Statistics but that these changes will be reflected in not only the chart but also the statistical series to be published at the end of 1977 in Volume 42 of the Yearbook.

3. SPECIES ITEMS IN FISHERY STATISTICAL SYSTEMS FOR THE INDIAN OCEAN AND WESTERN PACIFIC AREAS

3.1 Species items

The Working Party reviewed briefly the lists of species items for statistical purposes provided in various documents prepared for the Fourth Session. It agreed that all countries, in studying and analyzing carefully all these documents IPFC/IOFC:ST4/76/2B, 2C, 4C, 4D, 4E, 6A, 6B, 6C, 6D, etc., now have enough technical details available to serve as provisional indicators to ensure that properly detailed national list of species items for statistical

purposes could be identified. These would be reflected in national tables meeting national needs directly and also indirectly through inclusion in regional and international publications.

3.1.2 The Working Party noted that eventually certain modifications, including a careful selective increase in the number of divisions and groups of FAO's International Standard Statistical Classification of Aquatic Animals and Plants (ISSCAAP), might become necessary. However, it recommended that this should be preceded by a lengthy period of careful evaluation of any proposals to change it on a world-wide basis.

3.1.3 The Working Party was also of the opinion that more work must first be done to improve the breakdown by national species items throughout its region before adequate and final proposals from the region could be made to revise the present ISSCAAP. Nevertheless, all regional working parties and training centres, and similar activities concerned with the grouping of species items within international or inter-regional groupings, might usefully review the situation and refer any such provisional suggestions to FAO along the lines suggested, for example, in Document LPFC/IOFC:ST4/76/4B.

3.2 Conversion factors

3.2.1 An increasing proportion of the fish catch in the IPFC/IOFC region is processed at sea in one way or another before being landed. An extreme example occurs when only the fins of sharks are landed. More common are the removal of heads from shrimps, gutting of many fish and drying of low quality fish. The weight at the time of landing (and presumably also the time at which the weight can first be conveniently observed for statistical purposes) needs to be adjusted by the use of the appropriate conversion factors.

3.2.2 In order that a better general view of the problem in the IPFC/IOFC region can be obtained, and appropriate action taken to improve the situation where this is needed, FAO was requested to make a survey of the occurrence of treatment of the catch before landing. This should cover, for each important fishery, the broad groups of fish involved (e.g. mackerels, shrimps, trash fish), the nature of the treatment (gutting, heading, etc.) and the conversion factors used.

3.3 Discards

3.3.1 In a number of the industrial shrimp fisheries in the region - and possibly in some other fisheries - large quantities of fish, up to 90% of the total catch, may be discarded at sea. These may include small individuals of large commercially valuable species, fully grown individuals of smaller species that are still suitable for human consumption, and inedible species.

3.3.2 Some knowledge of the magnitude of these discards is essential in understanding what is happening to the stocks, as well as providing information on the extent to which better use of these fish could increase the supply of protein without changing the removals from the sea.

3.3.3 It seems that it would be difficult to include reliable information on discards within the normal system of collecting and reporting statistics. Reliable discard data requires close contact and understanding between the fishermen and those collecting the information. It is therefore recommended that countries should make estimates of the discards in those fisheries where discards may be important, and those estimates should be produced by an appropriate independent procedure.

4. STATISTICAL CLASSIFICATIONS OF FISHING CRAFT, FISHING GEAR AND FISHERMEN

4.1 Fishing craft statistics

4.1.1 The Working Party studied the document IPFC/IOFC:ST4/76/5C and noted that there are only minor discrepancies between the revised ISSCFV (International Standard Statistical Classification for Fishing Vessels) recently developed and revised by FAO in cooperation with OECD, EUROSTAT, ICNAF, ICES, etc. and the vessel classifications developed for the IOFC/IPFC region.

4.1.2 It suggested that the ISSCFV given as Appendix II of the SEAFDEC's document ST/76/W-3 presented as IPFC/IOFC:ST4/76/5C should be amended by introducing a new division which will cover groups 51 and 52, i.e. this new division will cover boats of 150-249.9 gross register tons while the remainder of the former division will cover vessels of 250-499.9 gross register tons.

4.1.3 The Working Group also noted the report of an Ad Hoc Working Group on Fishing Fleet Statistics in Paris, September 1976, and took into account that agencies such as IMCO and other organizations are now searching for means to measure and to express size classes of fishing craft other than by means of the generally used but not satisfactorily standardized gross register ton concept. The Working Party proposed that all countries should continue to proceed with the present system of gross register tons as a size measure until another alternative is generally and definitely adopted on a world-wide basis.

4.1.4 The Working Party also received from the Secretary a Report on the Inter-Agency Programme (FAO, EUROSTAT, OECD, etc.) to establish and maintain a world-register of fishing vessels of 100 gross register tons. The Working Party noted the many difficulties, particularly lack of standard methods of measuring GRT for fishing boats. Nevertheless, the Working Party recommends that despite their difficulties and many basic inadequacies FAO should stress the GRT units in its attempt to collect and publish national fleet statistics tables which should be comparable to the extent convenient and feasible.

4.1.5 The Working Party also noted that the Ad Hoc meeting in Paris and the EUROSTAT indicated the need in fishing fleet statistics to make provision for a classification by age groups. It recommended that consideration be given to the details reflected in part 6.0 of Part A of Document IPFC/IOFC:ST4/76/5A as revised in Appendix 2 of Document 5F.

4.2 Fishing gear statistics

4.2.1 The Working Party considered document IPFC/IOFC:ST4/76/5A and 5D and noted that nearly all discrepancies have been eliminated and recommends that FAO's ISSCFG could be reviewed to ascertain to what extent minor modifications could be introduced to enable it to become almost identical with a quite similar gear classification which SEAFDEC has developed on the basis of FAO's original ISSCFG as first formulated for the region.

4.3 Fishermen statistics

4.3.1 The Working Group considered the document IPFC/IOFC:ST4/76/5A and considered that no changes should be made in section 2.2 on page G.3 covering the classification and definition of fishermen. The Working Party nevertheless recognizes a need to expand the definitions to cover "fishing populations" as wider than merely the individuals active in actual fishing activities and operations.

5. REGIONAL FISHERY STATISTICAL BULLETIN

5.1 For many purposes, especially for the analysis of stocks and corresponding fisheries, compilations of international catch statistics are required in considerable detail (by species or groups of species, by sub-area or even smaller sub-divisions, possibly by fishery) along with information on fishing effort. The current publications of fishery statistics, by FAO, e.g. the Yearbooks and Area Statistical Tables, do not include all the detail required for such purposes. The Third Session of the Working Party stated that one of its important aims was to promote the production of Regional Statistical Bulletins for each of the major statistical areas. It was suggested that FAO prepare draft regional statistical bulletins for various statistical areas of the IPFC incorporating the details mentioned above.

5.2 The document IPFC/IOFC:ST4/76/6F prepared for the purpose by FAO for Statistical Area 57 was placed before the Working Party. A review of the tables shows that the position with regard to data on effort is not very satisfactory. Further, full coverage has not been attained because of lack of data. However, there are several important commercial fisheries in the region, e.g. shrimp fisheries in India, shrimp fisheries in Cilacap in Indonesia, demersal trawl fisheries in India, for which it is possible that good data on catch and effort are available.

5.3 The proposed present draft bulletin is therefore not suitable for direct use for stock assessment purposes. For these purposes much more detailed breakdown, especially by area, is needed. It would probably not be feasible to include such detail in a regional statistical publication, nor would this, in many cases, be necessary since many stocks are confined to a single national jurisdiction.

5.4 However, there is a wide and general regional interest in having annual nominal catch statistics in more detail than the broad major fishing areas now used by FAO for statistical purposes in the Yearbook of Fishery Statistics and supplementary publications. The Working Party therefore recommended that FAO should undertake the regular publication of regional statistical bulletins giving data by species items and by the Sub-areas and such Divisions as might already be established.

5.5 Data on fishing effort and other matters are to be omitted for at least the first two years after which the statistical publications programme would be reviewed.

6. STANDARD QUESTIONNAIRE AND RELATED QUESTIONS

6.1 Following the suggestion to proceed with the full implementation of the recommendations of the Third Session of the Working Party (paragraph 8.2 of the Report) over the next two years, i.e. to produce regional reports of total catch by species and sub-areas, deferring the matter of effort for two years, the Working Party considered the matter of obtaining the data from the countries in the region.

6.2.1 The data collection form that had been prepared by the Secretariat and the related instructions were reviewed in detail. (Documents ST4/76/7A and B).

6.2.2 The form met with general approval, as did the instructions. The exception was paragraph 3.1 with respect to which the use of the term "subsistence fishing" was questioned. The Secretariat was asked to modify the paragraph in such a way that it was clear that "subsistence fishing" was included in the concept of "small-scale" or artisanal fisheries.

6.3.1 The question of the catch of recreational fisheries was raised. It was pointed out that in some countries, like Kenya and Japan, recreational landings are becoming significant, especially with respect to certain types such as bill-fishes. Finally, it was noted that some countries were including the recreational catches in their annual data reported to FAO for the Yearbook of Fishery Statistics.

6.3.2 It was observed that for some purposes, e.g. stock assessment, the total removal from the sea is the pertinent statistic. For other purposes, only the amount of fish finding its way into commercial channels was relevant. It was also observed that some unknown fraction of the recreational catch appeared in the market place.

6.3.3 It was suggested that because of the significance of the recreational landings and the complexity of the problem, FAO should consider launching a world-wide enquiry with the tentative objective of producing information on sports (recreational) catches and deciding how these should be treated in regular statistical publications.

7. IMPROVEMENT OF NATIONAL FISHERY STATISTICAL SYSTEM

7.1 The Working Party reviewed the current status of fishery statistics, especially those of catch by species and by areas in the countries of the Indian Ocean and Western Pacific regions. Except for some countries such statistics are now available for most of the countries in the Western Pacific region, although substantial improvement in the adequacy, accuracy and timeliness of such data is still necessary. In respect of the Indian Ocean countries such data are still not available for a large number of countries.

7.2 The Working Party also reviewed the current national and international activities with the aim of improving such statistics. The work carried out by the two regional projects, i.e. the Indian Ocean Programme and the South China Sea Programme, in their respective areas, was noted. The effort to improve Indonesian statistics by the FAO Statistician attached to that country was also noted. In view of the wide area and the large number of countries in the region, however, more concerted action is necessary to bring about improvements in the quality of statistics available in both regions.

7.3 With a view to recommending measures for effecting improvements in fishery statistics by introducing proper scientific survey systems, the Working Party examined the constraints for introducing such systems. These can be classified under four main groups, i.e. financial, technical, operational and institutional.

7.4 The Working Party emphasized that the collection of statistics is a national responsibility. As collection of statistics through proper scientific survey systems involves more expenditure, unless individual countries are willing to provide the minimum necessary funds in their budget, no improvements in fishery statistics will be attainable in the near future. The Working Party, therefore, emphasized that IPFC and IOFC should strongly recommend that its member countries should make appropriate budgetary provision for establishing objective survey systems for obtaining reliable fishery statistics. In this connection, Article XI, paragraph 2, of the FAO Convention obliging member countries to collect and provide statistics, may be brought to their attention.

7.5 The Working Party suggested that to increase the understanding of the role and importance of good statistics by planners and those responsible for financial allocation in fisheries, separate short-term seminars should be organized by FAO for the countries of the IPFC and IOFC regions.

7.6 Improvement of statistics involves two main stages: the preparation of national statistical standards and establishing a sampling frame; and the construction of the survey plan and implementation.

7.7 Absence of national standards in respect of species items, craft, gear and areas, and sampling frames, in many countries have often hampered the speedy introduction of effective survey systems or have resulted in the production of unreliable statistics. The Working Party was convinced that some international expert assistance in setting up national standards and frames would considerably accelerate the process of establishing a proper scientific statistical system in the two regions. It was estimated by the Working Party that about 24 m/m of expert service would be required during the next 3 to 4 years for the purpose. The Working Party, therefore, recommended that the IPFC/IOFC should strongly urge FAO to provide for this assistance during the next 3 to 4 years for the two regions.

7.8 The operational constraints refer to lack of trained personnel in the countries of the region. The Working Party recognized that trained personnel are required at three levels for the establishment and conduct of objective statistical systems. They are:

- (a) Personnel required to plan, design and organize statistical surveys;
- (b) Personnel required for collection of data in the field;
- (c) Personnel required for processing and analyzing the data.

The training of persons in the first category is a long term measure. For speedy implementation of the establishment of statistical systems in countries, a two-fold approach is thus inevitable.

7.9 The Working Party recommended that for training national officials responsible for statistical programmes in their respective countries, FAO or its regional projects should, as soon as possible, organize regional training courses in fishery statistics in the two regions so that national personnel can be trained to follow up and execute plans laid down by the international experts.

7.10 The Working Party, however, believed that in the immediate future, assistance of first class international experts should be provided on request to priority countries. Priority countries in this respect would be those (i) where budgetary provisions are available for statistical surveys; and (ii) where large-scale fisheries development plans are in operation or in hand but no statistics are yet available. In short, the priority countries are those which are in a position to receive and make use of international assistance. It is estimated that about 36 m/m service during the next 3 to 4 years would be required for such assistance in the two regions in addition to the assistance that is being rendered by the Indian Ocean Programme, the South China Sea Programme and other regional institutions.

7.11 The Working Party also recommended that FAO or its two regional projects must arrange national training courses for the other two levels of personnel where required at appropriate times.

7.12 The Working Party also recognized that certain institutional constraints such as transfer of trained personnel, the division of responsibility between national, state or provincial authorities, or the fact that responsibilities for statistics, research, and administration and planning, are carried out by separate Ministries, departments, bureaux, etc. often greatly affect the quality of statistics and urged that countries should, as far as possible, remove such constraints and ensure proper coordination of all their fisheries statistical activities.

8. OTHER MATTERS - FUTURE ACTIVITIES

8.1 The Working Party noted the suggestion made in paragraph 10 of the Report of the Tenth Session of the FAO Committee on Fisheries, that the CWP (Coordinating Working Party on Atlantic Fishery Statistics) might extend its scope to other parts of the world.

8.2 The Working Party unanimously recommended that FAO reconstruct the CWP as a world-wide fishery body to be specifically responsible for the continued establishment and refinement of fishery statistical standards of global standards (e.g. standard concepts, standard definitions, standard classifications, standard methods, publications and tabular presentations, etc.). It should, in undertaking the tasks and responsibilities noted above, ensure the world-wide nature of these issues.

8.3 The Working Party fully agreed that the IPFC and the IOFC should ensure that they participate fully and actively in the programmes and meetings of this newly proposed expanded version of the former CWP.

8.4 The Working Party noted that these international standards should be sufficiently broad and detailed while retaining flexibility, to facilitate their easy modification and adaptation to regional and national requirements.

8.5 The Working Party agreed that while considerable progress had been made in some of its fields of work, for example, in regional standardization, very much more needs to be done. Some of this work may best be done at the regional (IPFC or IOFC) level, or jointly as an IPFC/IOFC activity to assist countries in the Western and Eastern Indian Ocean and in the Western Central and South Eastern Pacific to raise the coverage quality and timeliness of their national fishery collection, processing and publications systems.

8.6 It noted that there would be a need for ad hoc regional working parties or committees, to assist in the implementation of plans for the improvement of national statistical systems of adjacent groups of countries.

8.7 It also noted that if the IPFC should decide to establish a Standing Committee which might include a sub-committee on statistics, that the latter should confine its activities for the IPFC region in ways to eliminate duplication of IOFC activities.

8.8 The Working Party recommended, subject to decisions to be taken by IPFC at its 17th Session, that its Fifth Session be organized during the 18th Session of the IPFC and in the city where the latter will be held.

APPENDIX I

AGENDA

1. Procedural and Organizational matters.
2. Demarcation of boundaries of fishery statistical areas in the Indian Ocean and Western Pacific.
3. Species items in fishery statistical systems for the Indian Ocean and Western Pacific statistical areas.
4. Statistical classifications of fishing craft, fishing gear and fishermen.
5. Statistical tabulations in regional summary papers and in proposed IPFC and IOFC statistical bulletins.
6. Standard questionnaires and related instructions.
7. Improvement of national fishery statistical systems.
8. Other matters.
9. Adoption of the Report of the Fourth Session.

APPENDIX II

LIST OF DOCUMENTS*

1. General

- 1A Provisional Agenda
- 1B Annotated Provisional Agenda and proposed Schedule of Work
- 1C Provisional list of documents
- 1D Provisional list of participants

2. Reports of previous Sessions

- 2A Report of the First Session of the IPFC/IOFC Joint Working Party of Experts on Indian Ocean and Western Pacific Fishery Statistics, Bangkok 1-5 December 1969 (*Fish.Rep.85*)
- 2B Report of the Second Session of the IPFC/IOFC Joint Working Party of Experts on Indian Ocean and Western Pacific Fishery Statistics, Bangkok 13-17 December 1971 (*Fish.Rep.120*)
- 2C Report of the Third Session of the IPFC/IOFC Joint Working Party of Experts on Indian Ocean and Western Pacific Fishery Statistics, Jakarta 25-30 October 1974 (*Fish.Rep.157*)

3. Fishing areas for statistical purposes

- 3A World Chart: Major fishing areas for statistical purposes (*Fish.Circ.420 Rev.1*)
- 3B Descriptions of FAO Fishing Areas 51, 57, 71 and 81 (*Fish.Circ.637*)
- 3C A Compendium of notes on an international standard classification of Fishing Areas for statistical purposes - Revised draft of First Part (*Fish.Circ.372 Rev.1*)
- 3D A proposed international statistical system for the Antarctic Fisheries FAO Fishing Areas 48, 58 and 88 (*Fish.Circ.608*)
- 3E FAO Fishing Areas 51 and 57: Revision of the boundaries of statistical areas in the waters around Sri Lanka
- 3F
- 3G Major statistical sea and sub-area (SEAFDEC: ST/76/W-6)

4. Species items and their groupings

- 4A "Nominal Catches" and "Landings": Definitions and notes (*Fish.Circ.428*)
- 4B Proposals for a revision of the International Standard Statistical Classification of Aquatic Animals and Plants (ISSCAAP) (*Fish.Circ.379*)
- 4C Western Indian Ocean (Area 51) - Classification of aquatic animals and plants for statistical purposes (*Fish.Circ.521 Rev.1*)
- 4D Eastern Indian Ocean (Area 57) - Classification of aquatic animals and plants for statistical purposes (*Fish.Circ.631*)
- 4E Proposed Regional Statistical List of Species (SEAFDEC: ST/76/W-5)

* All documents prefixed by: IPFC/IOFC: ST4/76/

5. Fishing craft and fleets, gear and fishermen

- 5A Notes on international classifications and definitions used in fishing fleet, fishing gear and fishing effort statistics (*Fish.Circ.429 Rev.1*)
- 5B Report of Ad Hoc Inter-Agency Consultation on fishing fleet, fishing gear and fishermen statistics, Paris, September 1976
- 5C Statistical Classification of Fishing Craft (*SEAFDEC: ST/76/W-3*)
- 5D Proposed Statistical Classification of Fishing Gear (*SEAFDEC: ST/76/W-4*)
- 5E Standardization of Fishing Effort (*SEAFDEC: ST/76/W-7*)

6. Statistical tabulations for Fishing Areas 51, 57, 61, 71 and 80

- 6A Indian Ocean, Western (Fishing Area 51) Nominal catches by countries and species, 1970-74 (*Fish.Circ.620 Rev.1*)
- 6B Indian Ocean, Eastern (Fishing Area 57) Nominal catches by countries and species, 1970-74 (*Fish.Circ.621 Rev.1*)
- 6C Pacific, Western Central (Fishing Area 71) Nominal catches by countries and species, 1970-74 (*Fish.Circ.624 Rev.1*)
- 6D Pacific, Southwest (Fishing Area 81) Nominal catches by countries and species, 1970-74 (*Fish.Circ.626 Rev.1*)
- 6E Pacific, Northwest (Fishing Area 61) Nominal catches by countries and species, 1970-74 (*Fish.Circ.622 Rev.1*)
- 6F Draft IOFC Statistical Bulletin
- 6G Statistical table for regional comparison (*SEAFDEC: ST/76/W-2*)

7. Statistical questionnaires and related instructions

- 7A Notes for the completion of Form FISHSTAT 51A (*Fish.Circ.522 Rev.1*)
FAO Statistical Fishing Area 51 - Western Indian Ocean: Catch Summary (and Form)
- 7B Notes for the completion of Form FISHSTAT 57A (*Fish.Circ.532*)
FAO Statistical Fishing Area 57 - Eastern Indian Ocean: Catch Summary (and Form)

8. Need for fishery statistics and related purposes and methods

- 8A Notes on the "Fishery Section of statistical series for the use of less developed countries in programmes of economic and social development." (*Fish.Circ.629*)
- 8B Fishery statistics needed for development planning (*Fish.Circ.630*)
- 8C Improvement of national fishery statistics (*IOFC/DEV/75/41*)
- 8D Frame surveys and associated sample survey designs for the assessment of marine fish landings (*IOFC/DEV/74/39*)
- 8E Guidelines for collection and compilation of fishery statistics (*Fish.Tech.Paper FIRS/T148*)
- 8F Recent development of fisheries statistics in the Region (*SEAFDEC: ST/76/W-8*)

9. Indian Ocean Programme on national statistical systems in the Western Indian Ocean

- 9A A report on the building up of a statistical system for the collection of marine fisheries statistics in the United Arab Emirates (*IOP/TECH/75/4*)
- 9B Statistical system of marine fisheries in Mauritius (*IOP/TECH/76/7*)
- 9C Fishery statistical system in Sri Lanka (*IOP/TECH/76/10*)

10. South China Sea Fisheries Development and Coordinating Programme Reports on national statistical systems in the Western Central Pacific
- 10A Preliminary Observations and Recommendations concerning the Fisheries Statistics Programme of Peninsular Malaysia (SCS/76/WP/27)
- 10B Observations and Recommendations concerning the Fisheries Statistics Programme of Hong Kong (SCS)
- 10C Preliminary Observations and Recommendations concerning the Fisheries Statistics Programme of Singapore (SCS/76/WP/32)
- 10D Fisheries Statistics in the Philippines - a plan for a new and expanded data collection programme (SCS/76/WP/44)
- 10E Observations and Recommendations concerning the Inland Fisheries Statistics Programme of Thailand (SCS)
11. Additional Papers
- 11A Report of the IPFC Ad Hoc Committee to review the functions and responsibilities of IPFC (Fish.Rep.181 and IPFC/76/4)

APPENDIX III

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