

FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS



**INDO-PACIFIC FISHERIES COUNCIL
PROCEEDINGS**

**11th SESSION
KUALA LUMPUR
MALAYSIA**

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SECTION I

**IPFC Secretariat, FAO Regional Office
for Asia and the Far East
Bangkok
1965**

OFFICE BEARERS OF THE INDO-PACIFIC FISHERIES COUNCIL

1965-1966

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* The Office of Secretary to the Council is currently held by the FAO Regional Fisheries Officer for Asia and the Far East.

Remark: IPFC Working Parties 1965-1966 - see with back cover.

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Editor's Note: Previous issues of Section I of the IPFC Proceedings have contained Chapters covering intersession and session activities of the Technical Committees. In view of the extreme length of these reports and in accordance with the instruction issued by the Council and its 11th Session, these reports have been issued separately in the IPFC Occasional Paper Series, as follows:

IPFC Occasional Paper 65/2 - Intersession Report (1963-1964)
of Technical Committee II, Craft
and Gear Sub-Committee, Food
Technology Sub-Committee and
Socio-Economics and Statistics
Sub-Committee - Submitted to the
11th Session of the IPFC.

" " " 65/3 - Intersession Report (1962-1964)
of Technical Committee I -
Submitted to the 11th Session
of the IPFC.

IPFC Occasional Paper 65/4 - Stock Assessment Sub-Committee,
Technical Committee I, Indo-Pacific
Fisheries Council, 11th Session -
Intersession Report 1963-1964.

" " " 65/5 - Fisheries Oceanography Sub-
Committee, Technical Committee I,
Indo-Pacific Fisheries, 11th
Session - Intersession Report
1963-1964.

OPENING ADDRESS

by

Mr. Gopinatha Pillai,
Chairman, Indo-Pacific Fisheries Council

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*"Hon'ble Minister, Your Highnesses,
Excellencies, Delegates, Ladies and
Gentlemen,*

I would like first, on behalf of the Indo-Pacific Fisheries Council, to express my sincere appreciation to the Government of Malaysia and, particularly to you and your staff, Hon'ble Minister, for the courteous invitation accorded to the Council to hold its 11th Session in Malaysia, and for the excellent facilities which have been provided.

I have been most impressed by the skill and enthusiasm shown by the Staff assigned to work with the Council's Secretariat and I am sure that the Delegates will shortly be, if they have already not been, impressed by the work which has been carried out during the preparatory week and which is expressed in the considerable mass of documents already distributed.

We welcome the opportunity to enjoy the climate and friendship of the people of Kuala Lumpur and I am convinced that under these circumstances Delegations will be able to give of their best in tackling the load of problems which are to be brought before the Council during its business meetings.

About 50% of the world population live in and around the Indo-Pacific Region, and two of the most important problems facing the nations today are food for the steadily increasing populations and also malnutrition among them due to lack of

sufficient protein foods. A few of the nations in this region being seabound have to depend on the sea as the main source of protein food, and fisheries play a vital role in their economy. A few others because of restricted agricultural resources and limitations of land space have turned to the sea, while still other primarily agricultural nations have started exploiting the sea to supplement the cereal foods with protein rich materials. This region accounts for 40% of the world's entire fish production, but this is insufficient to feed the teeming millions here. Some are surplus nations whereas in others the magnitude of fish production varies considerably.

The awakening for developing the resources of the sea for the sake of protein food which came up in the wake of World War II, is being pursued with all vigour by most of the nations. Considerable expansion programmes in fisheries are being undertaken by most of the Member Countries, some limiting this to their internal financial resources and others assisted both financially and technically by the more fortunate nations.

Lack of finance, facilities and knowledge have been responsible for the low level of development in some of the countries of the region. Modern technology and economics have assisted the developing nations to start ambitious programmes of fisheries development on modern lines. It is common knowledge that the basic factors in the modernisation of the fishing industry are varied and large. These form a complex mosaic, the elements of

which are not only interwoven but interdependent. While contribution by an individual in this effort is limited, that by a collective organisation offers greater scope and possibilities. Many World Organisations have been focussing their main interests on the problems and necessities of developing areas. The FAO, some more fortunate nations with highly developed fisheries and some offspring of FAO like the IPFC have all played important roles in assisting the developing nations in their attempts. Provision of adequate harbour facilities and anchorages, introduction of better catching techniques through modern crafts and gears, proper repair and service facilities, handling and preservation of catches in a proper manner, transporting in suitable carriers, marketing the catches in a more systematic manner through co-operative efforts wherever possible, methods of economic fish culture etc., have been some of the lines which have been planned and are being implemented. In this regard the human factor also is of utmost importance, and in the intricate pattern of modernising the industry, improving the condition of the fishermen who are the primary producers also could not be over-looked. The cumulative effect of all these attempts has been appreciable, though the level of development still varies considerably from country to country.

Indiscriminate expansion of fishing on a large scale without taking stock of the resources available will naturally lead to disastrous results. It is true that most of the countries in this region have not yet started exploitation of fisheries on a scale warranting an apprehension of over-fishing. Nevertheless, since the

same species constitute the important fisheries common to certain parts of this region, excessive exploitation by one member country may be detrimental to the fisheries of the other neighbouring countries. It is necessary therefore that a serious attempt is made to have a complete resources study as well as an assessment of the fish stock available before large scale expansion is put to effect, for a judicious exploitation of the available resources. It is gratifying to note that an initiation has already been made in this regard during the 10th Session of this Council, and that further deliberations would be continued during the present session.

Lack of finance has been mentioned as a factor responsible for the present level of development in many of the countries. Because of low capital formation and low savings, careful phasing of the development programme is necessary to bring forth an improvement in the economy. Also, wastage of financial resources has to be avoided at the same time aiming to achieve the maximum benefits. When introducing modern types of fishing vessels in the developing countries it is necessary to evolve the most economical type suitable for different methods of fishing. An instance has come to my notice wherein fishermen of a region are only keen about the high speed of the boat used for fishing irrespective of the length of the boat or the type of fishing followed. This naturally leads to the installation of high powered and costly engines in boats for fishing which could perhaps be accomplished with engines of lesser power and cost. It is necessary that an attempt is made not only by individual countries but also by regional organisations to evolve the most suitable and economic types of boats for particular types of fishing through field experiments by reckoning variable factors like the length and

power of the boat.

The role of collective or co-operative effort in fisheries is well-known and I need hardly go into details on this. During this session we are probably going to hear more about this. While co-operative effort is helpful in all phases of the industry it is more useful to the ordinary fishermen on the marketing side since in most of our countries the fisheries activities are carried on by small class operatives. Considerable strengthening of the co-operative movement among fishermen especially in marketing is an urgent need. This is one method which will lead to an immediate improvement in their economic condition.

Speaking of marketing brings us to another problem viz. communication facilities which are an essential pre-requisite for effective marketing operations both within the country as well as outside. The relationship between production centres and markets and also between the production centres and export points, particularly harbours, is of great significance. It is a fact that in most of the countries in this region the fishing villages and fishing centres do not have good road systems connecting important market centres. Similarly, for marketing the produce from the widely distributed coastal fishing centres through a particular clearing point like an important commercial harbour, an efficient communication system is of utmost utility. In any planned programme of market development equal attention should be given to the need for good road systems and other communications along the coast line and linking production centres. This has to be a priority item, and should be preferred as a fisheries programme rather than under the general

Roadways or Public Works sectors.

I should also mention the great need for training at all levels, such as, administration, field management and operative. Training of persons in handling fisheries projects, fishing crews and other certificated hands to fulfil statutory provisions controlling operation of boats, fishery engineers, scientists, etc., has to be undertaken on an intensive scale. Some countries are earnestly undertaking such training programmes but a general uniformity in this respect is lacking. Training of Instructors also needs particular attention. I am of the opinion that short-term training, as we see it now, may not be any great value and I feel that long term sustained training, preferably institutionalised training, is probably the only answer to the problem.

In any fisheries development programme, whether on an industrial scale or through co-operative effort of fishermen, availability of credit is the crux of the problem. Many Governments in other parts of the world have satisfactorily solved this and evolved suitable measures both on Government level as well as through other financing agencies. It is preferable that the entire fisheries financing should be through one common agency for better coordination and success of the projects. Only a few nations are in a happy position today in this regard. This financing may be at Government level through regular Departmental resources on a separate agency basis like a Fisheries Bank. I, on my part, would any day prefer the latter for the sake of avoiding the usual redtapism and for a free flow of unrestricted finance.

This Council had been of considerable service to the countries in this region in the development of their fisheries. This is a forum

where exchange of ideas and opinion on the various aspects of fisheries development and research is made. Through this Council the common thinking is canalised to the Member Countries for their consideration and action. This pooling of knowledge has contributed to some extent in the improvement of the general conditions in this area. However, I feel that the Council could be and should be more effective for the sake of concrete results. To achieve this it may be necessary to strengthen the Council on both the Administrative and Technical sides. It has been established now by the experience of the past few years that technology is one thing which has positively helped the industry, and the consensus of opinion is that strengthening of the Council's Technical Staff, particularly on Craft and Gear, is an imperative need. It is true that there are a few national programmes in the region and Experts on national level. But I wonder whether an Expert on a regional basis would not be able to do better work and co-ordination since he may well be aware of the general trend of activities in on the countries whereas the national Expert may perhaps be working more or less within a water-tight and isolated compartment.

The Council should not be an organisation where pious resolutions are passed and then conveniently forgotten. A dynamic follow-up action is essential for achie-

ving results. Many problems on conservation and development of fisheries in this region are of an international nature and common to many countries and only united and timely action by all concerned can solve many of these. Therefore, it is necessary that initiation and continued action are positively co-ordinated and even enforced. The Council therefore may have to function as an effective intergovernmental body with certain executive functions. This is not an easy matter and needs considerable thought and spade work and even a large extent of finance. I am happy to see that an initiative has already been taken by the Food and Agriculture Organization in this respect and considerable amount of thought is being given to this. It is hoped that this would become a reality in the near future when this Council also could expect to achieve better results.

The Council is to be in Session till the 31st of this month, and I am sure that during the forthcoming deliberations a large number of important subjects vital to the region would be discussed leading to some tangible solutions. With the Symposium on increasing consumption of fish through improved handling methods, which is a pressing problem in this region, and discussions on the effect of trawling in tropical waters, which is of specific importance to the host country, I am sure the Session would be of immense importance and benefit.

I wish the Session all success! Thank you".

MESSAGE FROM DR. B.R. SEN,
DIRECTOR-GENERAL, F.A.O.,
PRESENTED BY DR. A. SEDKY,
FAO COUNTRY REPRESENTATIVE

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*"Hon'ble Minister, Your Highnesses,
Excellencies, Delegates, Ladies and
Gentlemen,*

The Director-General of FAO, Dr. B.R. Sen, has asked me to convey his greetings to you all who are assembled here to devote your thoughts and energy to the subject of this meeting. His interest in this subject is of long standing and is well known to you all. This is his message on this occasion (Address by Dr. B.R. Sen, Director-General, FAO of U.N.)

Your Excellency, Mr. Chairman,
Ladies and Gentlemen:

In meeting here for the 11th Session of the I.P.F.C., you are serving not only the interests of the countries you represent, but also the wider interests of the many nations of the world bordering the seas and deriving considerable portions of their national diet from them.

Your present meeting comes at an appropriate time. The most recent study of World Food Production indicates that even with all the effort made to increase food production, yet the world's population is increasing at a still higher rate. The situation in the Far East, where one-half the world's population lives, deserves even more serious attention, particularly in countries where animal protein intake stands at a tiny portion of the daily requirement.

Efforts made in fishery development in many parts of the world have

been rewarding. World fish production has doubled over the past decade. Your Council's role in such development is creditable.

However, in view of the pressing needs for animal proteins we must be continually conscious of the fact that the immense potentialities of the oceans, seas, rivers and inland waters are far from being fully exploited.

With the newer developments in the field of fisheries, scientific cultivation of fish and other sea foods has been progressing and the development of technologies has advanced rapidly. The gap between the individual fisherman casting his net in the bay and the floating factory of a mechanized fishing fleet illustrates these points. As the urgency of developing food resources grows, and as technology enables exploration and exploitation of farther and deeper waters, the international waters take on greater importance, and international control, international exploration and development, and international cooperation in usage are then vital.

I believe the FAO has an integral role in such an unfolding scene. You may know that the FAO Conference in its Twelfth Session (November 1963) requested that recommendations be worked out to enable the FAO through its Fisheries Division "to be the leading inter-governmental body in encouraging rational harvesting of food from the oceans and inland waters, bearing in mind the dynamic relationship between the living aquatic resources and the environment

and also bearing in mind the importance of fisheries in providing needed animal proteins."

It is gratifying to know that your Council in its meeting will be paying particular attention to specific problems confronting the Government of Malaysia in implementing its fisheries development programme and I am also pleased to learn that major international problems of fisheries oceanography in relation to the International Indian Ocean Expedition and the Co-ordinated Study of the Kuroshio Current will be receiving

consideration.

Your deliberations are expected to shed enlightenment on this widely ranging subject, and I wish you every success and benefit from this meeting

And finally I would like to take this opportunity to extend to the Government of Malaysia the most cordial and sincere greetings and to express FAO's gratitude for the assistance, courtesy and hospitality which is being accorded to the delegates and the staff of the Indo-Pacific Council.

ADDRESS

by
Honourable Minister of Agriculture
and Co-operatives, Malaysia,
Inche Mohd. Khir Johari

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*"Mr. Chairman, Your Excellencies,
Distinguished Delegates, Ladies
and Gentlemen,*

It gives me great pleasure to welcome all of you - Delegates, officials and visitors from overseas - to this Conference and to express the hope that your deliberations will be fruitful and your stay in our country enjoyable. On behalf of the Government of Malaysia, I would like to convey our gratitude to the Indo-Pacific Fisheries Council for the honour which has been accorded to us to host this 11th Session of the Council.

Malaysia, in common with other Member Countries in the region, upholds the high ideals and objectives of the Indo-Pacific Fisheries Council. We have co-operated wholeheartedly in the work of the Council

since its inception in 1949 and we will continue to offer our closest co-operation in the future. It will be recalled that the first inaugural meeting of the Council was held in Singapore in 1949 following a recommendation to set up the Council at a Fisheries Meeting also held in Singapore in 1947. It is therefore fitting that the Council in its 15th year of existence should now hold its 11th Session in Kuala Lumpur, the capital of Malaysia.

Malaysia, like all developing nations, is today faced with the problems of increasing food production to meet the needs of our expanding population. Here in the Indo-Pacific area, where more than half of the world's population can be found, the battle between food production and population explosion is most keenly fought and although

in recent years great strides have been achieved in most of the developing nations in increasing food production, such increases are nowhere comparable to the abundance which we see in the highly industrialised and developed nations of the West. Whilst standards of living in the West continue to rise, in the developing countries in Asia, Africa or Latin America the curse of hunger, malnutrition and poverty lingers on.

We are also aware that the attainment of political independence by the many hundred millions of the world's population in recent years has given a new urgency and a new dimension to the aspirations for higher standards of living, of which freedom-from-hunger and malnutrition is the first pre-requisite. We are also aware that with the scientific and technological progress achieved in the world today, it is possible to free the world from hunger and malnutrition but such freedom can be only attained if all the available human and natural resources of the world are mobilised to this end. In this great task of freeing the world from hunger and malnutrition therefore, fisheries have a large part of play, as about 70% of our protein requirements to meet the nutritional needs of human beings is derived from fish. This meeting of the Council, on which is represented both the highly industrialised nations and the developing nations of the Indo-Pacific region is therefore important as I have no doubt that national efforts to increase fish production will be viewed in the light of a world-wide frame-work of international co-operation so that there will emerge a fuller and more effective use of the human and natural resources towards meeting the challenge of eliminating hunger and malnutrition from the face of the earth.

We are today passing through what is sometimes called a revolution of rising expectations. In other words, our people demand the

same high and rising standards of consumption as the people in the more advanced nations of the West are enjoying today. Because of rapid population growth and the development aspirations of our people and in order to correct the imbalance of our economy, with its over-dependence on one or two major export commodities as the sole source of our export earnings, we are embarking on a vigorous programme of agricultural diversification and in this diversification effort, the development of our fisheries has been given equal emphasis as that accorded to expansion in agricultural crops. In our fisheries development, however, we have reached a stage where we are faced with a number of problems which will have to be tackled resolutely and objectively if rapid progress is to be achieved. In this connection, I am pleased to note that the Council will be discussing some of our problems in our fisheries development namely, trawling, fishermen's co-operatives and fish-marketing.

On the subject of trawling, the problem we are faced with is not so much the technology of trawling but the conflict which arises as between the new breed of trawling fishermen and the inshore fishermen using traditional gears and in some cases both exploiting the same fishing grounds. It is also a conflict between conservative and old fashioned ideas as against new ideas which follow in the wake of advancement in the scientific and technological fields. We know that this problem is not unique to Malaysia although ours may be somewhat accentuated because of the intensive nature of our inshore fishing operations. We know that several countries in this region have been confronted with the same problems and in some cases have overcome them and we therefore look to the Council to provide us with the guidance and advice to help up iron out these problems.

Our fishermen, like those in many

of the developing countries in this region, are among the lowest income group of the population. They are also in most cases the most illiterate and ill-informed. It is therefore our aim to develop our fisheries so that our fishermen can expect a fair and stable return for their efforts. Every effort has been made to foster the development of fishermen's co-operatives and other rural institutions as spearheads for fisheries development and although the results so far achieved have fallen short of the ideal, we are aware that there are still many problems to be solved. One of the greatest problems has been the lack of suitable leadership from amongst the fishermen and there is no doubt that one of the most urgent tasks ahead is to increase the level of education and technical skills of our fishermen.

On the subject of fish marketing, my Ministry is at present engaged in a comprehensive survey on fish marketing throughout the States of Malaya, and we are contemplating extending the survey to the new States of Singapore, Sabah and Sarawak in due course. This survey is aimed at providing information on every link in the marketing chain from the time the fish is caught to the time it is sold to the final consumer and we look forward to the results of the survey for providing guide lines for improvement of fish marketing in Malaysia. In this connection, I am happy to note that your Council has chosen for the subject of your symposium the question of "Increased fish consumption through improved fish handling and distri-

bution". This subject is most appropriate in the context of the fish marketing surveys that we are undertaking at the moment, and I hope our fisheries officials and marketing officers will be able to derive maximum benefit from the symposium.

Besides the subjects which relate to the problems in our country, I understand that the Council discussions during the next two weeks will range over a wide field from the question of stock assignment, fisheries oceanography to fish craft and gear, food technology and socio-economics of fishermen. I have no doubt that your discussions will be informative and constructive and I will be following your deliberations with the greatest interest and look forward to the results of your deliberations.

I hope that the distinguished Delegates and visitors from overseas will enjoy their short sojourn in our country and that in spite of the arduous task that lies ahead of you in the next fortnight, I hope all of you will be able to find time to see more of our country so that you can see for yourselves the way of life, the cultures and aspirations of the various races that go to make up this multi-racial nation of ours. I hope that when you leave our shores you will bring back with you fond memories of your stay in this country.

It is now my pleasant duty to officially declare open this 11th Session of the Indo-Pacific Fisheries Council.

ADDRESS

by

Mr. Roy I. Jackson,
Director, Fisheries Division, FAO

I sincerely welcome the opportunity to be with you at this Session of the IPFC and am most grateful for your invitation to address the Delegates assembled this morning.

First, I would like to tell you that the Director-General of the FAO has asked me to express his very deep interest and support for this Council in its work: an interest which I am sure will serve us all very well.

I joined FAO in May 1964 after 25 years of work in the fisheries of the North Pacific Ocean. During this time I was connected with three regional fisheries bodies. The International Pacific Halibut Commission, the International Pacific Salmon Fisheries Commission, and, for the last 9 years, Executive Director of the International North Pacific Fisheries Commission. The latter body has as its members Canada, Japan and the United States. Its fields of activities covers the entire North Pacific Ocean.

I have mentioned my work with regional fisheries bodies to emphasise the point that we in FAO fully appreciate the need for a regional approach to fisheries problems. FAO can stimulate the formation and assist in the development of regional fisheries bodies but cannot itself take the place of such organisation as IPFC.

I should like to tell you some-

thing about fisheries within the FAO. Many of you will recall that the 12th Session of the FAO Conference in November 1963 adopted a Resolution calling on FAO to become a leading inter-governmental body in the field of fisheries. The Director-General was requested to make recommendations to the next FAO Conference, to be held late in 1965, on the steps that FAO might take to achieve this purpose.

As a first step towards this goal the Director-General of FAO wrote to all Member Governments describing the problems which FAO faced in the field of fisheries, making suggestions for steps to be taken to overcome these problems, and asking Governments to give him their device. I will not attempt to describe in detail the problems which face FAO in fisheries, but will note that one of our chief concerns is to strengthen the regional fisheries bodies. To do so and to deal effectively with our many other problems requires first of all a strengthening of the fisheries staff within the Organization.

The Director-General's letter was dispatched to Governments. I, and members of my staff, subsequently visited a number of countries to discuss the contents of the letter and to exchange views on steps that might be taken.

Earlier this month there was held in Rome a meeting of the Council of FAO. The Council is a form of executive body consisting of 27 nations. It had on its agenda several questions related to fisheries. I will describe the results.

of the Council Session to you. First of all may I mention that fisheries within FAO forms one of 22 Divisions of the Organization. The Fisheries Division has a total staff of approximately 50 professional officers, of whom 10 are outposted in the Regional Offices.

Many of the Delegates to the FAO Council meeting were accompanied by fisheries advisers. There were approximately 20 senior national fisheries officials among the Delegations. We were able to hold informal consultations with these advisers which were highly useful in developing mutual understanding of the fisheries problems facing FAO.

At the Council Session the Director-General placed before the members his tentative proposals for strengthening FAO fisheries staff in the future. He proposed approximately doubling of the resources available to fisheries within a six-year period beginning on January 1, 1966. Increase in budget would be at the rate of approximately US\$350,000 each year or US\$ 700,000 per biennium.

The present Fisheries Division consists of three Branches, dealing respectively with biology, technology and economics. The Director-General proposed that a "Super Division" be established in 1966 to consist of 8 Branches, 5 of which would deal with fisheries resources and exploitation and 3 of which would deal with fisheries economics and products. In 1968 the fisheries structure would be transformed from a Division to a Department. The Department would have two Divisions; one dealing with resources and exploitation and the other with economics and products. The same structure would prevail in 1970/71 but staffing would be further increased to make all Branches fully

functional. At some time in the future when the pressure of work requires it, the Department could be further sub-divided into a total of four Divisions.

Many Members of the FAO Council spoke in favour of the strengthening of FAO's role in fisheries. In order to guide the Secretariat in planning the expansion of fisheries activities along proper lines, the Council authorised the Director-General to establish a temporary committee to consider the organization and status of FAO fisheries activities in connection with the programme of work and the structure of the Organization as a whole. Committee members are Chile, France, Iran, Italy, Philippines, Senegal, the United Kingdom, the United States, and such other Member Nations as are now or will on January 1, 1965, be members of the FAO Council providing that they notify the Director-General of their wish to participate in the work of the temporary committee.

We anticipate that this committee will be established very soon and that it will meet in March 1965, in time to give the next Session of the FAO Council the benefit of its advice.

The FAO Council also paid special attention to FAO's constitutional responsibility in the field of coordination of international fisheries work. In order to best achieve the aim of improving international coordination in fisheries matters, and to provide continuing advice to the FAO Conference, Council and the Director-General, the Council was of the opinion that there should be established a permanent committee on fisheries consisting of selected Member Nations. Members of the permanent committee on fisheries should as far as

possible be represented by the most senior officials responsible for fisheries. The Director-General was requested to place detailed proposals for the establishment of such a committee before the 44th Session of the Council, which will be held in June 1965.

In order to illustrate the kind of fisheries problems with which FAO is becoming concerned I might mention that the FAO Council also discussed problems of tuna conservation in the Atlantic Ocean. A majority of members of a Working Party on Atlantic Tuna had recommended that a conference of nations be held with a view to the possible establishment of an International Commission on Atlantic Tuna. The FAO Council, while it did not call such a conference of nations referred the matter to the next FAO Conference and requested the Director-General to undertake preparatory work including preparation of background documents so that if the FAO Conference so decided the international conference on tuna could be held in 1966. When one realises that as many as 70 nations either border the Atlantic Ocean and its adjacent seas or fish tuna in Atlantic waters, it can readily be realised that this is a complex undertaking and one which will demand strengthening of FAO in fisheries in order for it to carry out its supporting role.

While the FAO Council did not have a question relating to Antarctic Whaling on its agenda, the United States Delegation expressed grave concern over the future of the Antarctic Whale stocks. Antarctic Whaling is regulated by the International Whaling Commission. This Commission consists of 17 member nations. It is not directly connected with FAO, although we are

represented by observers at IWC meetings and one of our staff members has been a member of a Special Committee of Four Scientists which has been engaged in an assessment of the size of the whale stocks and calculations of the sustainable annual catch of whales. The IWC was unable to agree on a Quota for Antarctic Whaling in the 1964-65 season. The countries which hunt Antarctic whales include Japan, the Netherlands, Norway and the Soviet Union. Representatives of these countries informally agreed on a quota of 8,000 blue whale units for the 1964-65 whaling season. This is exactly twice the highest catch limit proposed to the IWC on the basis of the recommendations of the Committee of Four Scientists.

The United States Delegate advised the FAO Council that a number of Member Countries of the IWC are proposing that a special emergency meeting of the Commission be held early in 1965. If the emergency meeting is not held or if it fails to take adequate steps for the future conservation of Antarctic Whales, FAO may be asked by some of its Member Countries to convene a world meeting on the subject of conservation of Antarctic Whales. The Director-General of FAO has already made several interventions to the IWC, calling attention to the need for effective conservation measures for the whale stocks. These interventions have been based on FAO's constitutional responsibility to promote rational use of the world's food resources.

I have mentioned these matters to you in some detail in order to illustrate the kind of fisheries problems with which FAO

will become increasingly concerned. We must strengthen ourselves in order to provide adequate assistance in these and similar problems which will face world fisheries in the future. In highlighting problems of Atlantic Tuna and Antarctic Whaling, I have no intention of slighting our continuing and expanding responsibility for providing developing countries with technical assistance in fisheries, in both marine and inland waters.

Turning now to your own meeting - I am most happy to be

able to take part for the first time in a Session of the IPFC. I plan to remain here throughout the Session and to take every advantage of this opportunity to learn of your work and your problems. As a result, I hope to be able to strengthen our support of your activities and to do everything possible to further the rational and co-operative use of the fisheries resources of this region. I look forward to much further discussion with you on these matters, both privately and in formal session.

CLOSING ADDRESS

by

Inche Sulaiman bin Bulon,
Assistant Minister of Agriculture
and Co-operatives, Malaysia

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The Chairman welcomed Inche Sulaiman bin Bulon, Assistant Minister of Agriculture and Co-operatives, Malaysia, who received, on behalf of his Government the expressions of appreciation from the Council.

In formally closing the 11th Session the Assistant Minister declared the following address.

*Mr. Chairman, Distinguished
Delegates, Ladies and Gentlemen,*

I am deeply appreciative of the opportunity to address you today as you represent a powerful concentration of talent and experience drawn from the many Member Countries of FAO and other International Organization interested in the fisheries of this

region. I have been given to understand that you have now concluded your exhaustive deliberations on the many problems relating to the numerous facets of fisheries research and the fishing industry and, in particular, certain urgent problems of the fishing industry in Malaysia. Whilst I am fully aware of the difficult nature of all these problems, there is no doubt in my mind that your conclusions and recommendations are based on sound scientific knowledge as well as on your vast experience in dealing with such problems. In so far as the Government of Malaysia is concerned I can assure you that your recommendations will be carefully studied with a view to implementing them at the earliest possible opportunity.

I hope you have enjoyed your

short stay in this country and that you have had an opportunity to see for yourself the Malaysian way of life. You have no doubt noted the harmony in which the various races making up this multi-racial nation of ours live.

I would like to express, on behalf of my Government, our gratitude to you for the careful consideration which you, as experts in your own particular field, have given to the problems put before you. At the same time I would also like to express my appreciation to the FAO and the Indo-Pacific Fisheries Council for all the arrangements made to ena-

ble the many distinguished delegates and observes to meet here to carry out their deliberations and in particular to Mr. Roy Jackson, the Director of the Fisheries Division of FAO for coming to this meeting in person to give us the benefit of his wide knowledge and experience in the field of fisheries.

As you will all be leaving the shores of Malaysia soon to return to your own countries I would like to take this opportunity to wish you all "bon voyage" and I hope you will bring away with you happy memories of your short visit to Malaysia.

COUNCIL PROCEEDINGS

AGENDA

1. Adoption of the Agenda
2. Secretary's Report on Credentials
3. Statements by Delegations
4. Nominations
 - 4.1 Technical Committee and Sub-Committees
 - 4.2 Administrative Correspondents
5. Report of the Executive Committee
 - 5.1 Membership and Applications for Membership
 - 5.2 Relations with other Organizations
 - 5.3 Council's Report to FAO
 - 5.4 Publication and Editorial Policy
 - 5.5 Implementation of Council's Instructions and Recommendations
- 5.6 Matters referred to the Council by FAO
- 5.7 Report on Financial Affairs of the Council
6. Amendments to the Agreement and Rules of Procedure
7. Agenda Items proposed by Member Governments
 - 7.1 Host Country Problems
 - 7.11 Trawling
 - 7.12 Cooperatives
 - 7.13 Marketing
 - 7.14 Tropical Fish Culture Research Institute, Malacca (also proposed by U.K. Government)
8. Increased Consumption through Improved Fish Handling and Distribution (11th Session Symposium Subject)
9. Statistics (Including World Fishery Census)

10. References to Technical Committees

- 10.1 Technical Committee I references Tunas, Rastrelliger, Shrimps, Resources in general, IIOE, CSK

- 10.2 Technical Committee II references

11. Reports of Technical and Sub-Committees

- 11.1 Technical Committee I (including Sub-Committees on Stock Assessment and Fishery Oceanography)
- 11.2 Technical Committee II (including Sub-Committees on Craft and Gear, Food Technology, Socio-economics and Statistics)

12. Proposals for Symposium for the 12th Session

13. Time and Place of the 12th Session

14. Election of Chairman and Vice-Chairman

OPENING CEREMONY

The official opening of the 11th Session of the Indo-Pacific Fisheries Council was conducted by the Minister of Agriculture and Co-operatives of the Government of Malaysia, Inche Mohd. Khir Johari, in the Conference Room of the Dewan Tunku Abdul Rahman, Kuala Lumpur, Malaysia at 10.30 a.m. on Saturday, 17th October 1964.

The Chairman called the meeting to order and presented a short address.

Dr. A. Sedky, FAO Country Representative in Malaysia delivered a message to the Council from Dr. B.R. Sen, Director-General of FAO.

The Chairman then introduced the Minister of Agriculture and Co-operatives and requested him to address the meeting and formally declare the Session open.

The Minister delivered an address to the Council and guests at the Opening Ceremony and formally declared the Session open.

The Chairman expressed his gratitude to the Minister and noted the excellent services which had been provided by the Government of Malaysia in the conduct of the Council's Session. He recognized the honour done to the Council by the attendance of many distinguished guests at the Opening Ceremony.

AGENDA FOR THE 11TH SESSION

The Delegate for Australia requested a revision of the Agenda to allow for discussion in Plenary Meeting for the subject of the symposium for the 11th Session, and the inclusion of two new items, Statistics (including World Fishery Census) and References to Technical Committees, under which it was intended that the Council in Plenary Meeting would refer specific subjects to the Technical Committees for special attention. With these additions and amendments the Agenda was adopted.

STATEMENTS BY DELEGATES AND OBSERVERS

In accordance with the Resolution of the Council at its 6th Session, statements by Delegates and Observers were tabled and not presented verbally.

11TH SESSION ARRANGEMENTS

Through the courtesy of the Government of Malaysia, an invitation

for the Council to hold its 11th Session in Kuala Lumpur, was presented to the Executive Committee at its 34th Meeting held in Kuala Lumpur from 9th to 16th June 1963.

Member Governments of the Council and the Director-General of FAO were advised of the invitation and with the consent of the Director-General, following advice from a majority of Member Governments in favour of accepting the invitation, formal arrangements were made with the Government of Malaysia to hold the 11th Session of the Council in Kuala Lumpur from 16th to 31st October 1964 and invitations were forwarded to Member Governments in IPFC/ExCo.Circ./64/1.

Arising from previous intimation of interest of the Council's activities, invitations to be represented by Observers were sent to Non-Member Governments of:

Brunei	Portugal
New Zealand	Norway
Nepal	Canada
Laos	

as well as the following organizations:

United Nations Organization
 United Nations Educational,
 Scientific and Cultural
 Organization
 South Pacific Commission
 Pacific Science Association
 Conseil Permanent International
 pour l'Exploration de la
 Mer
 General Fisheries Council for
 the Mediterranean
 World Meteorological Organiza-
 tion
 Pan Indian Ocean Science Asso-
 ciation
 Food and Agriculture Organiza-
 tion
 Intergovernmental Oceanographic
 Commission

SECRETARY'S REPORT ON CREDENTIALS

Letters of credence or authorisation, in the proper form, were received from delegations representing the Member Governments of:

Australia, Ceylon, France, India, Japan, Korea, Malaysia, Netherlands, Pakistan, Philippines, Thailand, United Kingdom (Hong Kong), United States of America, Vietnam.

Non-Member Governments represented by accredited observers were:

New Zealand, Norway, Canada.

International Organizations represented by accredited observers were:

General Fisheries Council of
 the Mediterranean
 Pacific Science Association
 South Pacific Commission
 Pan-Indian Ocean Science Asso-
 ciation
 Intergovernmental Oceanographic
 Commission
 United Nations Organization
 United Nations Technical Assis-
 tance Board
 United Nations Educational,
 Scientific and Cultural
 Organization
 Food and Agriculture Organiza-
 tion.

Expressions of regret at inability to attend the 11th Session were received from the Governments of Burma, Cambodia, Indonesia, Brunei and Laos and from the International Council for the Exploration of the Sea and World Meteorological Organization.

STEERING COMMITTEE

The Steering Committee constituted to guide the conduct and programme of the Session consisted of:

The Chairman of the Council:
Mr. K. Gopinatha Pillai
Vice-Chairman of the Council:
Dr. Lee, Bong Nai
The Chairman of Technical
Committee I:
Dr. G.L. Kesteven
The Chairman of Technical
Committee II:
Dr. M.R. Qureshi
The Secretary of the Council:
Mr. J.A. Tubb

DRAFTING COMMITTEE

To ensure the drafting of Council documents in a uniform pattern, the Council established a Drafting Committee consisting of:

Dr. G.L. Kesteven (Australia)
Mr. A.P. Richardson (United Kingdom)
Dr. Ngo Ba Thanh (Vietnam)
Secretary (ex-officio)

REPORT OF THE EXECUTIVE COMMITTEE

The Chairman presented the Report of the Executive Committee and after clarification of certain items by the Chairman and the Secretary, the Report was adopted on a motion by the Delegate for Malaysia, seconded by the Delegate for Pakistan.

Membership and Applications for Membership

Membership of the Council now stands at seventeen. There was no change in membership nor application for membership during the biennium.

Relations with International and Other Organizations

The Council's relations with international and other organizations

has continued to be satisfactory. The actual participation at the 11th Session by IOC & UNESCO was indicative of this.

Council's Report to FAO

The Report on the Council's activities during the inter-session period 1963-64 and for the 10th Session had been transmitted to the Director-General of FAO in accordance with the Rules of Procedure.

Publications & Editorial Policy

The Council instructed the Secretariat to publish the Technical Papers presented to it as follows:

In full in the Proceedings

Nos. 2, 3, 4, 6, 7 9, 10,
12, 13, 14, 15, 16, 17,
20, 21, 23, 24, 26, 27,
29, 30, 31, 32, 34, 35,
36, 37.

In full in the Current Affairs Bulletin

Nos. 5, 8, 18, 25, 28, 33,
39, 40 (Summary Version),
41 43, 50.

As Occasional Papers

Nos. 1, 11, 19, 40 (in full),
42, 44, 45, 46, 47, 48,
49.

As Special Occasional Paper for Immediate Publication

No. 22.

Technical Paper 38 to be referred back to the author for expansion and inclusion if possible of data, tables and diagrams.

The Council considered that

the inter-sessional reports prepared by Member Governments constitute a useful record of governmental activity in fields of interest to the Council. It considered, however, that the form of these reports could be improved, and therefore recommended that each report should consist of a narrative section followed by a series of project summaries prepared in accordance with a special outline which is included in this report as Appendix II. The Council also considered that the usefulness of these reports to the Council would be greatly increased if these were made available in duplicated form at the Council Session and distributed promptly after the Council Session as Occasional Papers. Finally, the Council considered that the foregoing procedure would make it unnecessary for the Technical Secretaries of the Technical Committees to prepare consolidated National Activities Reports; in the Council's view each Technical Committee inter-sessional report should consist simply of an account of progress in activities initiated by the Council at the preceding session and such recommendations as emerged from those activities.

Government Nominations and Subsidiary Bodies

In accordance with Rules X(2) the Chairman polled Delegations to determine whether they desired representation on the Technical Committees. Nominations received from membership of Technical Committees, Sub-Committees and Working Parties will be later circulated to Member Governments. Nominations to newly constituted subsidiary bodies are subject to approval by the Member Governments concerned.

National IPFC Committees

In order to render more effective its work during the inter-session periods and to ensure maximum benefit to Member Governments, the Council urged Member Governments to examine the possibility of establishing at the national level Committees or Working Parties specifically to deal with IPFC affairs.

Financial Statement and Budget Proposals

The Statement of Expenditure and Budget Proposals for the periods 1965 and 1966-67 were adopted. (See Appendix I).

AMENDMENTS TO THE AGREEMENT AND RULES OF PROCEDURE

The Delegate for Australia proposed that the Council should reiterate the intention of 10th Session Resolution 1/62 in relation to the constitution, terms of reference and operation of Technical Committees and Sub-Committees.

Following discussion the Council adopted the following Resolution, proposed by the Delegate for Australia:

The Council resolves to draw the attention of the Executive Committee to Resolution 1/62 relating to amendment of the Council's Agreement and Rules of Procedure and requests the Committee to implement that Resolution taking note of the fact that the Government of Australia will sponsor the amendment to the Agreement. The Council also noted the plans under consideration for rearrangement of the branches

and sections of the Fisheries Unit of FAO into two parts with a prospect of these parts becoming Divisions within a Department. The Council considered that it could draw advantage from a revision of the terms of reference of its two Technical Committees so as to give each committee responsibilities with regard to the array of subjects allotted to the corresponding part of the Fisheries Unit. The Council therefore requested the Executive Committee to consider this matter in consultation with the Director of the Fisheries Division of FAO with a view to making such change in the terms of reference of the Technical Committees as would bring them into alignment with the distribution of functions in the Fisheries Unit eventually to be decided upon by FAO.

HOST COUNTRY PROBLEMS

In accordance with a resolution passed at the 10th Session of the IPFC, the 11th Session gave particular attention to problems brought to the attention by the Host Government, these included Trawling, Fishermen's Co-operatives, Fish Marketing and the Tropical Fish Culture Research Institute Malacca, jointly proposed by the Governments of Malaysia and U.K.

Trawling

The Delegate from Malaysia presented an account of trawling in Singapore and the States of Malaya, dealing expressly with a conflict which has grown between the fishermen engaged in inshore fishing and those who recently have developed trawling. The Delegate directed

four questions, as follows, to the Council:

- (a) How did the countries concerned solve the problem of trawling in relation to inshore fishermen?
- (b) How should trawling be controlled? By limitation of area of operation by depths, by specifying size of trawl-net and trawl-board, by specifying size of trawler boat and/or by any other means?
- (c) Does the conclusion* reached by Green & Birtwistle (1927, 1928), Ommanney (1962) and Tiews (1962) generally hold for other areas in the tropics? What is the prospect for deep-water trawling in the tropical areas of the Indo-Pacific Region, particularly in the South China Sea?
- (d) What should be the general guide lines for developing trawling in Singapore and the States of Malaya bearing in mind the already intensive exploitation of our inshore waters?

Experience in Other Countries

In the active discussion that followed presentation of this paper it was shown that conflicts such as that which has arisen in Malaysia had arisen also in many other parts of the world. Delegates from the United Kingdom (Hong Kong), Vietnam, the Philippines, Australia, India and the observer from Norway described similar situations. Most often there is no direct physical interference between fishing units in such situations, but ill-feeling arising out of the conflict leads, at times, to

* That trawl fishing is not an economic proposition for the portion of the South China Sea investigated by S.T. Tonkol.

personal violence. Enmity develops in these situations because of competition for a limited available total catch, or for a limited market; the ill-feeling originates, and is strongest, among those in the established fishery, because these men consider that they have an historical right to their fishery and because generally their methods have lower fishing power and less range and hence cannot sustain the competition.

In some cases, of which the Vietnamese situation is an example, an arrangement is reached between the competing groups, with reservation of some inshore grounds for traditional operations. Among these cases the reservation is sometimes obtained by Governmental delimitation of grounds. An interesting example of this kind of arrangement was described by the Delegate from Japan. In this case the boundaries between areas were demarcated by placing concrete blocks along them. The blocks are cubes of 1 to 1.5 m. side, and cost about (US)\$30 each*. Allocation and reservation of grounds in these ways is possible, and appropriate, where the stocks are distributed differentially since particular gears can then be operated on each stock and each section of the industry can pursue its own developmental course.

In other cases, such as that cited by the Delegate of the United Kingdom, the situation is resolved by departure of the trawlers for distant grounds. This happens either because catch rates on the inshore grounds fall too low or because, whatever the catch rate on the inshore grounds, the trawlers are bound to seek other grounds on which to expend their effort.

Lastly, there are cases where some of the in-shore fishermen turn to the new method of fishing. In some of such cases the conflict disappears as soon as this move takes place, whilst in others there remains a need to allocate grounds and/or to encourage the trawlers to seek other grounds. An instance of the latter course of events was described in detail by the Delegate of the Philippines.

To summarise, the Council would point out -

1. that extension of fishing operations away from the sea-shore is the normal course of events in fisheries development;
2. that such extension generally involves improvement of craft and gear, and operation of the new gear is generally more profitable than operation of the traditional in-shore methods;
3. that conflict between the in-shore fishermen and those introducing the new gear is a normal feature of such situations;
4. that the intensity of the conflict depends upon:
 - (a) the limits to increased catch, in the conflict area, set by the resource;
 - (b) the social, financial and other impediments standing in the way of the in-shore fishermen, delaying or preventing their participation in the development;

*The fact that the blocks provide a surface on which various organisms grow and in which fish take refuge, gives them a value in addition to that as a limitation on trawling.

5. that these conflicts have been resolved in different ways in different countries, with and without Governmental guidance, and it cannot be held that one pattern of development is superior to all others;
6. that Governmental plans to contain the conflict and direct the development should be based on reliable information on the resources and on the industry itself.

Resources Aspects of the Problem

The basic consideration in these situations is the resource since each resource can yield only to its own particular level. In thinking of "a fishery resource" we must bear in mind that these resources vary greatly in size, in the area they inhabit, and in their patterns of distribution. The concept of unit stock is of considerable importance here since it draws attention to the fact that the fishing of a stock in one part of its area of distribution has an effect on the whole of the stock, over the whole of its area. Consequently, if the appropriate yield is being taken from a stock by operations in one part of its area, then any additional fishing in some other part will reduce the stock, and the yield per unit effort will fall. Under certain conditions the total catch may continue to increase, but only at the cost of continually increased fishing effort; under some conditions, and for some species, the total catch will fall simultaneously with the fall in catch per unit effort. The conditions that determine what happens to total catch and catch per unit effort are set by the growth and recruitment characteristics of the stock and by the fishing power and selectivity of the fishing gear;

the former are natural features and as yet uncontrollable by man; the latter can be set out in regulatory measures.

Thus, in any particular situation, whether the introduction of new fishing methods and/or an increase in the number of fishing units, will cause a change in total catch and/or catch per unit effort, will be determined by the degree and manner of exploitation of the stocks by the existing operations. To be able to forecast a course of development in a particular situation, or to guide it, there is need for identification of unit stocks and for assessment of the yield characteristics of each; at the same time there is need for data on the fishing power and selectivity of the gears to be used.

Socio-Economic Aspects

In the socio-economic sense this problem involves the following questions:-

- (i) the means whereby inshore fishermen could be induced to change their methods of operations;
- (ii) the means whereby the tension which now exists between trawler operators and inshore fishermen might be reduced;
- (iii) whether legislation was essential, or desirable to define methods of operation on the areas in which trawlers might be allowed to operate, and the areas which might be restricted for use by inshore fishermen.

With regard to the first of these questions the Council agreed that if

inshore fishermen were to be encouraged to develop new techniques it would be necessary for the Government to institute a Loan Fund and to provide the necessary training. The Committee realised, however, that not all inshore fishermen could be turned into trawlermen.

With regard to the second question, the Council noted that in Japan, Committees composed of fishermen's representatives and Government officials exist in each region to delineate the areas in which the various categories of boats might be allowed to fish. In Hong Kong the Fish Marketing Organization has posted liaison officers to each of the main fishing centres and they arbitrated in many of the disputes. Furthermore, the Federations of Cooperative Societies have, amongst their members, representatives of all forms of fishing.

The Council agreed that it would be advisable for the Government in Malaysia to examine whether either of these would provide a solution to this problem.

The legislative action taken by Member Governments and by the Government of Norway was examined and the Council agreed that it would be unwise to introduce any legislation which could not be adequately enforced. The Council furthermore agreed that it would be difficult for the Government of Malaysia to introduce legislation of minimum mesh sizes until it had much more information available on stock resources, and that as the most fertile areas are now being fished by both traditional inshore fishermen and the new inshore trawlers, it would be preferable not to lay down any statutory limits

until the matter had been thoroughly discussed by representatives of both the fishermen and of the Government.

The Malaysian Situation

Although the problem presented to the Council by the Delegate from Malaysia refers essentially to a situation in Penang and Perak, the background paper (IPFC/C64/WP 17) deals generally with fisheries of Singapore and the State of Malaya and refers to trawling grounds in the South China Sea, and the fourth question posed by the Delegate relates to development of trawling in Singapore and the States of Malaya. It is therefore necessary to note that there are differences between east coast grounds and those of the Singapore Strait on the one hand, and those of the west coast on the other. On the former grounds there is somewhat better prospect of being able to designate distinct grounds for separate exploitation; moreover there is better prospect for trawlers from these grounds to extend their operations into the South China Sea. The results of trawling experiments by M.V. Dunvegan and S.T. Tongkol showed that the catch taken around the 15 fathom line along the east coast of Malaya had a greater proportion of Lutjanidae, Nemipteridae and Lethrinidae whose further exploitation merits examination.

On the west coast however the situation is more difficult because the grounds are less extensive, and because there is a preference for the species taken by the inshore operations. In some parts of the west coast grounds the 15 fathom line lies at some distance from the shore and in consequence a requirement that trawlers operate only outside of this line would reduce the immediate irritation felt

by the inshore fishermen.

There is some suggestion that the fishing power of the Malaysian inshore fishery was at a level approximately appropriate to the yielding capacity of these stocks. If this were true there could not be any addition of fishing power, without a decline in catch-per-unit effort and perhaps some fall in total catch. The report by the Delegate for Malaysia that the catches by the inshore fishermen showed some decline after the introduction of trawling, might be taken to be some evidence in support of the view that the stocks are limited and already fully exploited. However, this doesn't necessarily follow since the fall might be only a coincidental natural fluctuation or the trawl catch might be only reducing the amount of fish reaching the areas fished by the inshore gears while not damaging the total stock. That is to say, the argument that the stocks are limited isn't yet proven. But, if the inshore gears had achieved only partial exploitation of the stocks, there would still remain the task of ascertaining what further exploitation is possible and how much such further exploitation could be effected by trawlers without reducing the catches by the inshore gears.

If preservation of employment opportunity for the existing group of inshore fishermen were of over-riding importance the introduction of trawling could be banned completely. Such a course, however, might leave some valuable resources neglected; moreover it would put a bar to development, in which the inshore fishermen themselves might be interested. On the contrary if rapid development

were desired, trawling could be permitted without restraint, but this would leave the conflict to continue and might open the way to overfishing.

What the Delegate for Malaysia has, in effect, asked the Council to do is to propose between these two courses a compromise which would:

- (a) keep open the opportunity of employment of the existing group of inshore fishermen in this fishery,
- (b) permit development of this fishery,
- (c) prevent overfishing of these stocks.

He has indicated, with regard to item (a), that his Government expect this inshore fishing to continue indefinitely but would expect some eventual reduction in, if not a total eventual elimination of inshore fishing as a commercial operation.

No proposal along these lines could be made without data on matters such as:

- (a) stock characteristics, (size, distribution, yield),
- (b) numbers employed, levels of productivity, and cost earning ratios,
- (c) relative physical efficiency of the two types of operations and quality of product from them.

With such data it could be possible to offer advice on the following cases:-

A. If employment is to be reserved indefinitely to inshore fishermen:

whether any trawling should be permitted, and, if so, how many trawlers (specified catch capacity and operating under what conditions).

B. If inshore employment is to be reduced:

the rate at which trawlers (as specified capacity and operating conditions) would be permitted to enter, in substitution of the displaced inshore fishermen.

Among the conditions that could be specified for the operation of trawlers would be a regulation mesh-size, but this could be done only after assessment has been made of the stocks. Other measures are: catch limitation, limits on the number of trawlers to operate and limits on trawler size; specification of these however could be made only on the basis of data as listed above, and with a view to particular objectives.

The foregoing arguments assume that the Government proposes to control this situation to some determined objective. On the contrary, Government might choose to leave the situation to resolve itself as a result of the play of economic forces. The Council does not need to comment on the likely socio-economic consequences of such a course, but it must recommend that steps be taken to obtain data (such as from stock assessment and studies of gear selectivity) necessary for the choice of regulatory measures which undoubtedly would need to be introduced. The Council must observe, in fact, that there can be no assurance that a need does not already exist in the inshore operations for some regulatory measures

by which to improve the present exploitation.

Discussion and Conclusions

The Council noted the Government's wish to promote fish production, as food supply, within the limits set by the available resources, and its belief that development of trawling could contribute importantly to increased fish production.

Trawling generally gives important gains in production and efficiency, with advantage to both fishermen and the community as a whole. In general, once trawling is initiated in a locality, for exploration of some resource, the extension of such operations is inevitable and therefore, considering also the advantages of this fishing method, no attempt should be made to impede this development unless particular circumstances indicate a need to do so. On the contrary, if, in a particular situation, it is clear that trawling gives real advantages, every effort should be made to encourage the development.

In every instance of exploiting a fish resource a limit to production is set by the resource characteristics and within that limit the level of employment opportunity is fixed by the efficiency of the fishing methods employed. In most fisheries the number of fishing units and their individual efficiency grow to a limit according to the play of economic forces. In some cases controls are introduced by Government and/or industry itself, with the objective of ensuring best use of the resource and sometimes of ensuring equitable distribution of the opportunities of participating

in the industry. The special case described by the Delegate of Malaysia has to be considered in the light of these generalisations.

The ground fish resources exploited by the inshore fishermen and exploitable by trawlers will be able to yield some determinable catch and hence support employment of some finite amount of fishing effort. Since the stock has not yet been assessed, and detailed statistical data on the different types of fishing equipment are not available, no firm prescription for management of the situation can be made. However the Council considers that it can safely recommend to the Government that it carry through its present experiment on the grounds around Pulau Langawi for the purposes described in Working Paper No. 17. The Council would stress the importance of keeping detailed record of the progress of this experiment; catch and effort should be recorded in detail and the catches should be sampled systematically, to determine their species composition and the size-distribution and other characteristics of each species catch.

The Council further recommended:

1. that detailed study be made of the operations and catch of the in-shore fishermen,
2. that consideration be given to means of encouraging and assisting in-shore fishermen to undertake trawling, such as by:

- (a) a loan programme for purchase of boats,
- (b) a programme for purchase of stake sites and other inshore fishing rights.

3. that research leading to assessment of ground fish resources in relation to fishing intensity be undertaken and appropriate measures be adopted to prevent the onset of overfishing.

Establishment of Working Party

The Council established a Working Party with the following terms of reference:

1. To receive from Australia its Computer program for analysis of trawling data and review this in the light of conditions prevailing in the country.
2. Promotion of extraction and processing of data on trawling records of the countries in the region.
3. Ensuring that the operation is conducted as far as possible according to a standard plan.
4. Receiving the compilations and collating, studying and reporting on this to this Council.
5. To meet at an appropriate time during the Inter-session period.

Membership of the Working Party on Trawling

The Council nominated the following, subject to approval of their respective Governments:

Mr. Arporn Sribhibhadh
(Thailand) - Chairman
Mr. I. Ronquillo
(Philippines)
Dr. Takashi Ino (Japan)
Mr. D. Pathansali
(Malaysia)
Mr. Tran Van Tri (Vietnam)
Mr. K. Gopinatha Pillai
(India)
Mr. J.D. Bromhall
(United Kingdom)

Co-operatives and Marketing

It was suggested that the two questions were interlinked and that they could be most suitably discussed together. The Malaysian Delegate agreed and referred to WP 28. He elaborated on paragraph 13 of the Paper and said that his country wished to benefit from the experience of Member Governments in these matters. He said that there were 75 fishermen co-operative societies in Malaysia, which had a total membership of 5,788 and the share capital of little over 300,000 dollars; that all were either Credit and Marketing or Credit Societies; that those which had been formed voluntarily from members having common interests functioned satisfactorily but that those which had been introduced on the East Coast, in order that certain development plans might be implemented were not so healthy. Over \$1.38 million had been lent to the East Coast Co-operative Societies and their repayment record was very poor; of the 75 societies,

41 were now receiving loans from Government. The 40 East Coast Co-operative Societies had formed themselves into a Marketing Union and the Union was ineffective.

The problems on which Malaysian Delegation sought advice were:

- (i) the proper functions of co-operative societies at this stage of the development;
- (ii) what structure, administrative, legislative or otherwise, is needed to enable the co-operative societies to perform these functions;
- (iii) recognising that in developing countries, Governments must often step in to fill the breach, the role which the Government of Malaysia has to pay at the present stage;
- (iv) the type of training which should be given for those whose duty it is to promote the Co-operative Movement amongst the fishermen.

The Government, whilst recognising the difficulties confronting fishermen, wished to give them a better deal and foresaw the need for State intervention if the strangle-hold of the middlemen was to be broken. Before taking action, Malaysia sought the opinions of the Delegates based on their own experiences.

Discussion ranged over a very broad field which allowed all Delegates to express their experiences in marketing and co-operation. One line of argument was that at village level, fishermen's co-operative societies should be multi-purpose. Instances of success were quoted from

both India and Japan, although the Delegate from India disputed the success of multi-purpose societies at village level, stating that in his country the main functions of such a society were production, although they sometimes included credit, leaving federation or zonal organisations to market primary produce and receive Government subsidies for ice plants, transport and other facilities. The Delegate for United Kingdom argued strongly that co-operation must be voluntary; should have no strings attached to it and must start simply. He instanced Hong Kong, where most fishermen's co-operative societies proved themselves as thrift societies in the first and learnt the elements of co-operation and management by administering their own Revolving Funds. He saw multi-purpose functions as a middle stage of development before the specialisation of larger units was necessary and saw sound marketing facilities as an essential adjunct to the development of soundly based co-operative societies. Pakistan thought all co-operative societies must be Government controlled, at least in the early stages but the United Kingdom felt that there should be no government control except by way of dissolution when a society has ceased to function in accordance with its by-laws.

The Council heard in considerable detail of the situation regarding marketing and co-operation pertaining in Pakistan, Ceylon, Vietnam, Hong Kong and Japan. Malaysia then raised its own peculiar problem of its Fishing Aid Scheme which had been based on co-operative societies which had been formed in great haste in Northeast Malaysia, especially to enable the Aid Scheme to be introduced. It was recognised that much of the repayment record

of Hong Kong's fishermen, could be traced to that country's system of marketing and it was generally accepted that the healthy growth of co-operative societies could not be based solely on aid schemes or Government finance.

It was also generally agreed that co-operative societies in the region could not compete with middlemen without Government intervention and that Government assistance should normally lie in the field of marketing.

In further discussion and in particular relation to Malaysia, it was agreed that:-

- (i) co-operation must be by voluntary association, preferably of people having a common interest;
- (ii) formation of a co-operative society should be based on a specific need, which need should determine the functions of the society;
- (iii) new societies should generally have limited functions;
- (iv) thrift functions have educational values which could fit society to perform credit and other multi-purpose functions at a later date; and
- (v) sound marketing is closely inter-related with the healthy growth to the Co-operative Movement and successful credit schemes.

It was further believed that the situation in Malaysia indicated the need for the Government to:

- (1) establish an autonomous or semi-autonomous fish

marketing agency which should:

- (a) establish fish collecting stations at fishing centres where the local co-operative societies were not in a position to perform these functions;
 - (b) arrange transport facilities to wholesale markets in consumer areas where there is sufficient buying power;
 - (c) provide advances from the estimated catch proceeds to the fisherman at the time he delivers his catch;
 - (d) generally provide all other necessary functions now being provided by middlemen for the benefit of fishermen,
- (2) encourage the growth of the Co-operative Movement and provide the necessary training to co-operative society members so that, in time, they may take over all the functions which it is envisaged that the Government sponsored fish marketing agency should initially perform, and
- (3) ensure that all extension and field officers have a sufficient knowledge of the Co-operative Movement and those Co-operative Officers assigned to work amongst fishermen have a sufficient basic knowledge of fishermen and fisheries, so that each

may encourage the sound, practical and steady growth of the Co-operative Movement amongst fishermen.

Tropical Fish Culture Research Institute

The Delegates of Malaya and the United Kingdom asked the Council for suggestions with regard to the future management of the Tropical Fish Culture Research Institute, especially with respect to a suggestion that the Institute should be internationalised.

Delegations had been furnished with documents relating to the Institute and paid a visit to the Institute and heard from its staff some account of the activities there and of the possibilities for both short term and long range research.

In the view of Council Members the facilities at the Institute are of a high standard and afforded an excellent means for conducting research and training. Recalling its own proposals made from time to time for actions by Member Governments and FAO to promote the development of inland fisheries in the region, the Council considered that a careful examination should be made of the possibility of maintaining this Institute as a Centre for international action in training and research for inland fisheries. It appeared to the Council that if suitable arrangements could be made for meeting the cost of operation of the Institute, there might be important economies to FAO and other agencies, and to the Member Governments in their conduct of technical assistance programmes relating to inland fisheries. Moreover, it appeared to the Council that the existence of an international

institute in this field, with which the Council might be associated, would strengthen the moves for international collaboration within the region.

The Council, therefore, resolved to appoint under Rule X(3), a committee on a Regional International Fish Culture Research and Training Institute consisting of representatives of Malaysia and the United Kingdom, the Chairman of IPFC and the Secretary of IPFC.

- (a) to put to Member Governments the views summarised above and to ascertain whether Member Governments would be prepared to support these views to the extent of wishing to ensure the continuance of the existence of the Station as an International Institute;
- (b) in consultation with the Director-General of FAO, to examine ways in which the costs of operation of the Institute might be met, both on a short-term basis and in the long run;
- (c) if the results of the foregoing enquiries should indicate a possibility of obtaining support for the Institute, to formulate in consultation with the Director-General of FAO, proposals for the management of the Institute.

The Committee shall have power to co-opt and its terms of reference are to be understood as giving it broad powers of study and recommendation.

The Council took note of the view expressed by the Delegate for Malaysia that promotion of fish culture must take a relatively low priority, below that of marine fisheries, in his country's plans for fisheries development and that hence, a fortiori, it could not accept heavy financial commitment for the conduct of long range research of the kind being carried out at the Station. The Council fully appreciated the reasons for this expression of opinion by the Delegate of Malaysia and, therefore, emphasised that any proposals formulated by the Working Party must not, in any way, prejudice any moves made by the Government of Malaysia in seeking assistance for its own fishery development programmes.

11TH SESSION SYMPOSIUM

At the Symposium for the 11th Session, the Council considered the subject "Increased Consumption through Improved Handling and Distribution". The background material for the discussion consisted of 37 papers presented by authorities on various aspects of the problem.

Arising from the discussion the Council recognised that further detailed study were desirable and recommended that governments might undertake studies in the following fields:

- a. Evidence of existence of impediments of fish consumption, their nature and magnitude (e.g. wastage, costs of ice, quality of fish at retail markets, inadequate distribution, distribution

costs, lack of knowledge of the economic importance of the use of ice).

- b. Development programs for the removal of existing impediments.
- c. Studies on the amounts of fish involved and the extent to which consumption could be increased.

The Council requested FAO to prepare a handbook for the guidance of Member Governments on the production and use of ice, both from technical and economic view points.

It further recommended that governments should undertake studies on the quantities of ice needed in different fisheries and during distribution in order to bring fish of the required quality to the consumer. Such studies should pay particular attention to the economic aspects of the problem.

Governments were urged to establish field pilot projects which could provide the necessary facilities for demonstration of proper and economic handling techniques as well as for the training of fishermen, fish distributors and personnel of cooperatives and extension services.

The Council further suggested that Member Governments might take up comparative studies of the economics of insulated and mechanically refrigerated vans and other equipment for fish distribution in the light of particular conditions pertaining in their respective countries.

The Council established a Working Party on Fresh Fish Preservation with the following terms of reference:

1. To examine the data provided by field workers on the use of ice in their respective areas,
2. to make practical recommendations on how fish might be kept in fresh condition from the time it is caught until it is retailed,
3. to indicate probable increased costs to fishermen, distributors, wholesalers and retailers if such recommendations were adopted.

The Working Party should consist of specialists in Cooperatives, Fishery Administration, Refrigeration Engineering, Fish Processing Technology and Fisheries Economics.

The following persons were nominated to membership of the Working Party:

Mr. K. Gopinatha Pillai
Mr. Hee Un Chang
Mr. Soong Min Kong
Dr. E. Noguchi
Mr. I. Peterson
Mr. J. Slavin

(Subsequently at the requests of the governments concerned, Dr. E. Noguchi was replaced by Dr. K. Amano and Mr. J. Slavin by Mr. J. Dassow.)

STATISTICS

(A) General

The Council was informed that FAO hoped to appoint a Regional Fisheries Statistician at Bangkok under EPTA in 1965 and that he would advise Member

Governments in improving their statistical systems and methods of collecting and compiling data. It was agreed that it would facilitate the Statistician's work if governments prepare a report on the status of their fisheries statistics and on the problems confronting them. Such a report should be prepared on the basis of a questionnaire or outline to be drawn up by FAO.

(B) Fisheries Census

The Council concluded that there were two main reasons for a Fisheries Census in the Region:

- (a) To prepare the inventory of fishery industries to provide Member Governments with the basis for formulating fisheries policies and development programmes.
- (b) To provide the basis for sampling programs for the collection of operational statistics on fisheries, such as Catch and Effort data and other input-output data.

It was agreed that the Fisheries Census proposed should cover both marine and inland fisheries, including their three phases. Although further studies should be made, the Fisheries Census may cover at least the following items:

- (a) Primary Phase: (i) Fishing management units, such as fisheries enterprises, fisheries households, (ii) Fishing units, (iii) Fishing crafts, (iv) Fishing gear, (v) Manpower;

- (b) Secondary Phase: (i) Fish processors, (ii) Equipment, (iii) Manpower;

- (c) Tertiary Phase: (i) Agents engaged in fish marketing and distribution, (ii) Equipment, (iii) Manpower.

In most of the countries in the Region fishing activities, including inland water fisheries, are carried out all over the territories and Agricultural Census will collect fisheries data from agricultural holdings. Moreover association of the Fisheries Census with the Agricultural Census will afford considerable savings in labour and expenses in establishing enumeration districts and in identifying the objects of Fisheries Census and preparing a complete framework for a Fisheries Census. The question of how closely the two censuses should be aligned in time and in other respects requires close examination.

For the training of census officers it was agreed:

- (1) That FAO be requested to organize a Training Centre for professional officers from Statistical or Census Departments and the Fisheries Departments of Member Governments although the choice of the trainee will be left to the Member Governments.
- (2) That two people be sent by each Member Government to this Course, the principal object of which would be to ensure that each country used the same

terminology and had the same approach to the programme.

(3) That the length of the Course not exceed 13 weeks but this would, to some extent, depend upon the further study by the proposed Standing Working Party.

(4) That the participants in the Course be responsible for training Group Leaders in their own countries who would, in turn train the enumerators.

(5) That as Thailand intends to begin conducting a Fisheries Census in 1965 and Hong Kong undertook an annual count, these might be used as pilot schemes.

(6) That the Course provided by the FAO be held in 1967/68, preferably in Bangkok.

(7) That the FAO be requested to undertake:

(a) Compiling a programme of the Fisheries Census dealing with the type of survey items and classifications which should be kept as simple as possible;

(b) Compiling a list of definitions and acceptable terminology;

(c) Compiling a booklet for use by professional officers who will attend the Course and be responsible for census taking in their own countries;

(d) Compiling a simple guide on training Group Leaders and enumerators;

(e) Providing, possibly, two experts to train the professional officers at the Training Centre;

(f) Compiling a Consolidated Report of the results returned by the various participating countries after the census.

As some Fisheries Departments might find difficulty in obtaining funds from their Treasuries to finance the Census, without strong support for the Census from the FAO, it was agreed that the matter might be raised at the FAO Council to be held next year and that it might later be taken to the FAO Conference.

The Council noted that implementation of a World Fisheries Census will involve a great deal of preparations at the national level. Therefore, it suggested to the Member Governments to consider the desirability of creating a National Working Group on Fisheries Statistics which would maintain close contact with the IPFC Standing Working Party on Statistics, and which would promote the necessary national preparations.

The Council recommended that a Standing Working Party of Experts should be formed so that it may further study, during the inter-session period, problems concerning training and promotion as well as detailed schedules of items of classifications, which will meet the requirements of Member Governments in the Region.

The Standing Working Party on Statistics will consist of:

Mr. K. Chidambaram
 Mr. S. Selvadurai
 Dr. Deb Menasveta
 Dr. T. Yamamoto
 Mr. G.N. De Silva
 Mr. J.R. Montemayor
 Mr. T.S. Hida

The FAO was requested to provide the Standing Working Party with necessary secretarial service. The Director-General was requested to provide funds for the Working Party to meet at an appropriate time so that the Working Party may consider the details in the light of the requirements of the Member Governments to implement the proposed fisheries census.

REFERENCE TO TECHNICAL COMMITTEES

To organize better its programme and to expedite the work of the Technical Committees, the Council in Plenary meeting referred a number of selected subjects to the respective Technical Committees for consideration and report. Recommendations and Resolutions on these subjects drafted by the Technical Committees were received by the Council in Plenary meeting and after discussion adopted and incorporated in the Council's Proceedings.

REPORTS OF TECHNICAL COMMITTEES

The reports on the Inter-Session activities of the Technical Committees, including reports of the Sub-Committees and on FAO Fisheries Division participation in IPFC affairs were presented by the Chairman of the two Technical Committees and adopted.

Arising from consideration of the Inter-Session Reports,

The Technical Committees prepared reports incorporating various recommendations. These reports were received by the Council and adopted. The recommendations relating to various subjects are given in the following paragraphs.

Induced Spawning of Fish

Aware of the rapid development in efficient techniques for the induced spawning of certain fish species.

Recognizing the high value of such techniques in the development of improved fish practice.

The Council resolved to request:

the Director-General of FAO to organize through the Expanded Programme of Technical Assistance a Regional Training Centre, of not less than six weeks and on a site to be determined, on induced spawning of fish through hormone injection; the centre to be held as soon as possible and preferably not later than 1967.

South China Sea and Sunda Shelf

The Council was informed that the Governments of Thailand and Vietnam proposed to conduct a co-operative research project in the South China Sea and the Sunda Shelf with particular emphasis on researches that might lead to development of fisheries exploiting the fishery resources of this area.

The Council noted the relevance of such a project to the problem of development of trawling which the Government of Malaysia had brought to the

attention of the Council, and was informed that the Government of Malaysia would wish to be associated with the project.

The Council recalled that various studies had been made of the area, notably the Muga Expedition in the Gulf of Thailand and the South China Sea, and recognized that the results of this and other expeditions would provide much guidance in planning the project proposed by the Governments of Thailand and Vietnam.

Recognizing the contribution that the proposed project could make to development of fisheries in the region, the Council resolved:

- (i) to recommend the project to the attention of countries bordering the Sunda Shelf, especially Malaysia and the Philippines,
- (ii) to request FAO and UNESCO to give all possible assistance to the project,
- (iii) and to suggest that the Working Party appointed in connection with the compilation of data from tropical trawling operations might be able to assist in planning this project and interpreting its results.

Co-operative Study of the Kuroshio

The Council noted the proposed Co-operative Study of the Kuroshio (CSK) laid down in document UNESCO/IOC/INF-47, and the resolution on the CSK approved at the Third Session of IOC (Resolution II-5).

The importance of an understanding of the environment in the development of fishery resources to their maximum sustainable yield is recognised. The CSK has potential to contribute such understanding for a large area of the western Pacific Ocean. The opportunity to comment on the fishery aspects of the CSK is, therefore, appreciated.

The Council recognized that the physical, chemical and biological oceanographic observations will provide a general framework within which the fishery observations may be considered, but that the requirements of the two kinds of observations are frequently such that, in general, they cannot be made simultaneously from the same ships or by the same staffs of scientists.

The Council noted that the proposed fishery aspects of the CSK are stated in rather general terms, without reference to specific processes, fisheries, or areas as the objects of study. Owing to the existence of a considerable store of knowledge of the resources of the Kuroshio area and to the limitation of, for example, the amount of ship time available, it is considered that a set of specific problems should be selected for study and effort concentrated on these. The Council believed, however, that the specific fishery problems to be studied as part of the CSK must be defined by those fishery scientists and agencies who will actually bear the responsibility for making the studies. For these reasons it is not now practical to comment specifically on the proposed CSK fishery aspects.

The Council, however, would suggest certain principles or criteria which could be followed in identifying, more specifically, the CSK fishery problems.

1. The fishery problems can, as has already been noted, most appropriately be selected by those who:

- (a) are familiar with the fisheries of the CSK region; and
- (b) will bear the responsibility for the conduct of the studies.

2. Selection of particular fishery problems might be governed, among other things, by

- (a) the magnitude of the fishery (attention is drawn to IPFC/C64/WP 22, which lists some important fisheries in the Kuroshio area, and IPFC/C64/M 21, which lists five groups of species considered to be in need of further study. It is appreciated that these lists are not exhaustive and that particular countries may regard other species as of equal or greater importance);
- (b) the number of countries involved in the fisheries; and
- (c) the urgency of the problems.

3. A summary review of the existing knowledge of the relation of the distribution and abundance of the principal harvested species of

fishes to the environment and the fisheries, in the Kuroshio area should be undertaken.

4. Advantage could be taken of the framework of oceanographic observations by insuring more complete and extensive catch statistics, particularly with respect to area and time of capture, and to provide for more detailed sampling and market measurements to provide information on the characteristics of the catches.
5. Attention could be paid to the relationship of the distribution of fishes to special features of the region; e.g. fronts, interfaces between currents, and mixing areas.
6. Fishery organizations normally working in the Kuroshio area could relate existing studies to the CSK.
7. A FSL, if appointed, could provide facilities and coordination services, including these services for studies which might otherwise be under-emphasized. The FSL should be located in one of the countries. The FSL should establish relationship with the appropriate bodies of FAO, including IPFC and ACMRR.

Finally, the Council noted that more detailed planning was urgently needed. In view of the proposed CSK time schedule, the Council believed that a series of national working groups

should be convened, at the earliest possible time, to prepare national fishery programs, which could be considered at the next meeting of the National Coordinators.

Terms of Reference for the Fisheries Subject Leader

In the light of information at present available to it the Council considered that the duties of the CSK - FSL might include items such as those set out below but recognized that precise statement of such duties could be made only after the fishery content of the project had been decided upon.

The Council considered that the following duties of particular importance fall within the ambit of the CSK - FSL:

1. Stimulate the definition of the fisheries problems of the CSK; the types of problems; the species affected; the areas and seasons. This will require meetings of fishery experts in each country to define national problems, followed by a regional meeting at which those problems which can be solved by concerted action should be allotted a degree of priority. (It is noted that this definition of the problems should not be delayed until the appointment of the FSL. It is included here as a logical first duty should the FSL be appointed at an early date).

2. Examine the proposed national programmes to see how far they go to solving the fisheries problems; point out gaps and possible duplication in the programmes and try to arrange the greatest degree of coverage within the resources available.
3. Since direct comparability of observations will increase considerably their usefulness, the FSL should try to bring about a uniform approach to each problem, by such means as the intercalibration of standard techniques where feasible, and arranging the loan of gear.
4. Check the availability of trained staff in the participating countries, and stimulate such training and/or secondments as may be feasible to insure the best use of the available ship-time.
5. Check that countries possess adequate staff and facilities to work up the collected material. Where deficiencies are found, make appropriate recommendations such as the training and/or secondment of staff, and the analysis of certain types of material by one organization which has greater experience.

The Council further considered that these duties needed the full-time attention of the FSL, and that he should be funded sufficiently to enable travel to be undertaken as required.

International Indian Ocean Expedition

The Council took note of the programme of work for the FSL of the IIOE as described in UNESCO/IOC/INF-53 and approved by the IOC in resolution III-3 of its 1964 meeting.

The Council agreed that the compilation of the data described in UNESCO/IOC/INF-35, and the preparation of charts of such data, is required by the fishery programmes of the Indian Ocean, but the Council believed that much of such work rests with and is being carried out by various institutions, both inside and outside the Indian Ocean area. There may be a need, however, for the FSL to ensure the compilation of, and preparation of charts relating to some types of data which may not be dealt with otherwise. The Council was of the opinion that the need in the region is for an officer who would work within the region to assist national research institutions in their planning and conduct of programmes of fisheries oceanography.

The Council noted however that FSL has been appointed by IOC and has been given terms of reference relating mostly to the preparation of charts.

The Council suggested to IOC that the terms of references of the FSL should be revised in consultation with FAO so as to orient the work of the FSL more closely to the regional needs and expressed a wish that FAO might find the means in 1965 or 1966 to place an officer in the region to carry out such work indefinitely.

The Council also noted the desirability for charts of this nature in the future; charts which

would show the seasonal and cyclical changes of oceanic conditions of importance to fisheries development where data permit.

IPFC Recommendation on the Indian Ocean

The Council recognized the growing need for animal protein in the human dietary requirements of the countries surrounding the Indian Ocean and was aware of the ability of the Indian Ocean fishery resources, if rationally developed, to contribute substantially to the filling of those needs on a sustainable basis.

Further, the Council realised the need, by developing fishing industries, and the governments in those countries to be able to take into account the seasonal and cyclical variability in fish availability and abundance arising from temporal changes in the environment as well as from increased fishing pressure in planning the rational development of those fisheries, since local conditions of fish abundance and availability may be strongly affected by climatic and oceanographic conditions arising in the far distance and not detectable locally. Recognizing the necessity for a regional ocean-wide, as well as national approach to these problems into which the results of national fishery development programmes can be fitted and can grow, the Council resolved to request FAO in consultation with appropriate other United Nations bodies, to examine the feasibility of designing and funding a programme of fishery oceanography for the Indian Ocean which would provide a regional background of knowledge and understanding of the ocean for the use of national fishery develop-

ment programmes, which could make use of this sort of information arising from the International Indian Ocean Expedition and national fishery development work, and which would provide a long range programme incorporating both national and regional elements under which the rational development of the Indian Ocean fisheries could proceed expeditiously.

Surface Temperature Charts

The Council recognized the value to the rational development of the pelagic fisheries of synoptic knowledge of variations in the temperature regime over broad areas of ocean, and being aware of inferences that can be drawn concerning upwelling, superficial currents, and other such oceanic processes useful in interpreting variations in fish distribution and behaviour from plottings of surface temperatures over broad area oceans, congratulated the International Meteorological Centre for the Indian Ocean on its preparation and publication of surface temperature charts for the Indian Ocean at regular and brief intervals, and hoped that this form of charting will be made a part of the permanent programme of IMC.

IOBC

Considering the potential importance to the developing fishing industries of the IPFC region of the plankton studies and data on the Indian Ocean organized in the IOBC, the Council hoped that the Centre would continue some similar international activities for an appropriate period after the end of the IIOE, and encouraged UNESCO, together with FAO and the Government of India, to seek ways and means of ensuring this.

Stock Assessment

The Council made a tentative review of information relating to the magnitude of stocks of various species of fish in the Region and the intensity of exploitation of these stocks. This information related to:

- (i) number of countries concerned with each species or group;
- (ii) the magnitude of catch as taken from each;
- (iii) the urgency of obtaining some assessment of the status of each;
- (iv) the amount of research being conducted by each country on each group.

From this information the Council established an order of priority for the attention to be given to each group. The order was as follows:

1. Tunas
2. Shrimps and Prawns
3. Rastrelliger
4. Sardinella
5. Chanos

UNESCO Regional Meeting (Marine Sciences Experts)

The Observer from UNESCO informed the Council of preliminary plan for the above meeting to take place at the beginning of 1965. The Council recognized the relation of many of the topics proposed for this meeting with fishery programme in progress or contemplated within the Region. The Council therefore considered that it would be desirable that fishery research workers of the Region should, where possible, be present at the meeting. The Council therefore resolved to

recommend to Member Governments that they make it possible for senior fishery officers to attend this meeting. The Council also recognized the general interest of this meeting for both ICSU's Scientific Committee on Oceanic Research and FAO's Advisory Committee on Marine Resources Research, and resolved to recommend to the Scientific Committee on Ocean Research that it arrange, if possible, for its Liaison Officer with the Advisory Committees on Marine Resources Research to attend this meeting.

The Observer from UNESCO invited the Council's comment on the draft agenda for this meeting. The Council made the following suggestions:

1. Item 1.5 should be deleted, since it is contained in 1.3.
2. Add at the end of 4.1: "with reference to fishery resources of economic importance".
3. In 4.2 first sentence, delete "fisheries biologist like the other" : second sentence should read: "This cannot be achieved unless....."

Rastrelliger

The Council established a Working Party on *Rastrelliger* consisting of:

Mr. D. Pathansali (Chairman)
Dr. Deb Menasveta
Dr. Elvira O. Tan

The Working Party was asked to work with Mr. J. Gulland, Co-Director of the FAO/EPTA Training Centre on Mackerel and Tuna Research, in order to:

1. plan and describe a *Rastrelliger* catch sample

system to subsequently be implemented by each country;

2. prescribe catch and effort statistics to be collected;
3. determine appropriate methods of analysis of the data arising from (1) and (2);
4. indicate appropriate lines of laboratory work (e.g. methods of age determination) to be undertaken;
5. indicate the work necessary for stock identification;
6. determine the steps to be taken to pool the resulting data for presentation at the 12th Session.

Tuna

The Council noted with pleasure the Report of the First Session, FAO Expert Panel for the Facilitation of Tuna Research (Rome, 8-12 June 1964) and the action initiated or proposed by that Panel with regard to many aspects of tuna research. The Council considered that, in accordance with its general assessment of the relative importance of various groups of fishes, it should give additional attention to problem of tuna research in the Region and that its actions in this matter should be in conformity with the proposals of the Expert Panel and should supplement the activities of that Panel as far as is appropriate. It believed that though many countries of the Region do not have active programmes of tuna research it was probable that many of these countries would be in a position to collect material and make measurements and observations on tuna which would fill in gaps in the current research programmes of the Region. The Council

therefore appointed a Working Party consisting of:

Mr. J.C. Marr (Chairman)
Dr. A. Takashiba
Monsieur M. Legend
Mr. J. Hynd
Dr. E.G. Silas

- (i) to assemble, as may be possible, such data as may serve for assessment of tuna stocks in the Region.
- (ii) to formulate suggestions, to be placed before those Member Governments not engaged in tuna research, for special collection of material, measurements and observations on tunas.

Shrimps

The Technical Secretary of Technical Committee I gave an account of the plans for the FAO World Scientific Meeting on Shrimps and Prawns to be held in 1967. The Council expressed considerable interest in this meeting and considered that its Technical Committee I should give some assistance to FAO in its preparations for the meeting. The Council therefore requested Dr. Tham Ah Kow of Singapore to prepare an IPFC Regional Paper giving an account of the unit stocks of shrimps and prawns in the Region and the unit fisheries exploiting these. Dr. Tham will base his paper on catalogues of unit fisheries and research project summaries prepared by Member Governments and the Technical Secretary will assist Dr. Tham in collecting these documents.

Attention was drawn to a possible confusion of identify with respect to *Macrobrachium rosenbergi*. The Observer from

UNESCO undertook to arrange for examination of samples of specimens of the species from the Region with a view to resolution of the problem. Delegates present undertook to collect the samples and transmit them to the Observer from UNESCO; instructions as to the mode of collection, preservation and transmission would be sent by the UNESCO Observer to individuals who would be responsible for the collection.

Pollution

Viewing with concern the continued increase in the pollution of natural waters, both fresh and coastal, through industrial development, urbanisation and modern agricultural practice,

Emphasising that the use of pesticides harmful to aquatic life, particularly by broadcasting was rendering large areas of fish producing waters no longer fully productive,

Considering that the long term effects of the continued use of such pesticides could be potentially of considerable danger not only to the living aquatic resources but also to their food organisms and to man himself,

The Council resolves

- (a) to emphasize to Member Governments the urgent and immediate need to review their policies in this regard;
- (b) to urge on Member Governments the desirability of exploring more fully the possibility of developing suitable (including biological) control measures, not harmful to aquatic life,

for agricultural pests.

- (c) to request the Director-General of FAO to render all possible assistance to Member Governments in order to diminish by all practical measures the current dangers.
- (d) to request the Director-General of FAO to make available to Member Governments the documentation on pollution control in Europe and North America and urge on them the desirability of adopting the code presented in these documents and of forming suitable bodies to implement that code.

Unit Fisheries

The Council noted that the Stock Assessment Sub-Committee of Technical Committee I had, as part of its effort to establish a schedule of principal unit stocks of the region and to identify the stocks to which early attention should be given, proposed the preparation by each country of a catalogue of its unit of fisheries. Draft catalogues had been prepared by the Philippines and Australia and the Council recommended to other Member Governments that they also prepare such documents.

Boat Building Training Centre

Noting the importance of training boat builders in this Region in modern methods of construction and maintenance, and being convinced that such training should be given to instructors who will train people in their own country,

The Council resolved to request FAO:

to hold a Training Centre for instructors in boat building, through EPTA. Such a Training Centre which should include in its curriculum the principles of fishing boat design, boat construction and maintenance and engine installation, should last about one year. However, the duration of the course may be decided by FAO after considering the qualifications of the trainees.

Weather-forecasting

The Council noted that weather forecasting for fishermen has expanded in the Region and drew the attention of the Member Governments to the recommendations made by the Council during its 10th Session on this subject.

Boat Design

The Council noted that development of improved designs of fishing boats is a continuous process and requested FAO to make available to Member Governments information on latest developments in this field as and when they become available.

Boat Construction

Regarding technical developments in fishing craft construction and maintenance, the Council requested FAO that Member Countries should be informed through IPFC as and when such information becomes available. The paper on fiberglass plastic boats (IPFC/C64/TECH 50) was noted with interest and the Council felt that in view of the high costs and the necessity to import raw materials, such boat may not be an economic proposition in all countries.

Echo Sounders

The Council was very much interested in the paper from Japan "The Modern Fish Finder and its Application in Japan" by Y. Tawara on echo sounders, and requested FAO to make available to the Member Governments extra reprints of the paper, together with illustrations as soon as it is published.

Fish Attraction

The Council heard with interest from the Delegate from Malaysia that petromax lamps are now fitted with mica globe to prevent breakage. The need for systematic study of the efficiency of surface as well as submerged lights was stressed.

Coloured Fishing Nets

The Council requested FAO to provide information on the efficiency of coloured fishing nets to the Member Countries as and when such information becomes available.

Purse Seining and Trawling

The Council heard with interest new developments in the Philippines in one boat purse seine using power blocks. The Council requested the Delegate from the Philippines to send an Experience Paper on the development of one boat purse seine in the Philippines for publication in the IPFC Current Affairs Bulletin for the benefit of the other Member Governments.

In addition, the Council requested FAO to prepare for publication in the CAB a world-wide review article of other modern developments in purse seining.

Fish Landing Facilities

Provision of landing, icing, marketing and preservation facilities at landing places were regarded

by the Council as extremely important, as well as appropriate harbour facilities and roads to markets.

The Council brought to the attention of Governments the FAO Publication, "Landing and Marketing Facilities at Selected Sea Fishing Ports", (available in English draft), FAO Fisheries Report No. 8, 1963, which contains useful information.

Fisheries Credit

Reference was made to the 10th Session's recommendation concerning the organisation of seminars on fishery credit. Circumstances differ from country to country but certain common problems exist. It was believed that a seminar where those who administer fisheries credit schemes are able to exchange information on their methods and experiences would be useful to improve the organization and practices of their credit schemes.

The Council therefore requested FAO to organise such a Seminar.

The Council noted that in Japan there is an adequate insurance scheme for fisheries and that in India, Ceylon and Hong Kong, relief schemes are available to fishermen who lose their boats or suffer from natural disasters.

The importance of both capital and recurrent loans to fishermen was recognised and it was agreed that the repayment of loans should be flexible and be based upon the actual income of the fishermen to whom the money has been loaned.

Arising from the discussions on loans, it is noted that few, if any, banks accept boats or

gear as security. Governments are urged to establish some means of providing loans to fishermen on the security of the boats and gear, and on the potential income. The Council reminds Member Governments of the special nature of the fishing industry.

Fishermen's Co-operative Societies

Several Delegates including Ceylon, Thailand and Vietnam mentioned that in their countries Fisheries Departments as well as Co-operative Departments have dealings with fishermen. This division of responsibility often causes an administrative difficulty in taking effective measures to promote fishermen's co-operatives. In Hong Kong this problem does not occur, since the Fisheries Division is responsible for all fisheries and co-operative matters. In India, Co-operative Officers are seconded from the Co-operative Department to the Fisheries Department and the latter is responsible for formation and supervision of fishermen's co-operatives.

Considering the above, and noting that the administrative organization differs from country to country, the Council recommended that where such problems exist, Member Governments study how to establish a more effective government administration to handle fishermen's co-operative societies.

Economic Research

Regarding research on economic impact of technical improvements in fishing, the Council reiterated its 10th Session recommendation to the Member Governments that research be conducted on "Impact of Introduction of Mechanized Fishing on Socio-Economic Status of Fishermen".

Cheap Fuel Supplies

Having noted that certain administrative problems arise in connection with abolition of import duties and other taxes on fuel oil, and nevertheless emphasising the beneficial effects of the availability of duty and tax free fuel oil to the industry,

The Council recommended to the Member Governments that where feasible they might consider reduction of prices of fuel oil, either by abolition of taxes or by subsidies.

Fermented Fish

Considering that fermented fish products are very important and that large capital investment in this form of processing exists, and noting that very little basic data on this process exists,

The Council recommended that basic research in this field be encouraged, and suggested that a suitable qualified person be awarded a fellowship for carrying out fundamental research in this field.

Fish Processing Research

The Council brought to the attention of the Member Governments the importance of research in fish preservation and the development of new products and processes and recommended that research in this field should be encouraged and expanded.

The Council requested FAO to provide a summary of the

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and that the second priority should be for a Boat Designer (Naval Architect).

PRIORITY OF COUNCIL REQUESTS TO FAO

The Working Party established by the Council, and consisting of:

Mr. Tran Van Tri
Mr. Soong Min Kong
Mr. Sanan Ruamragsa
Mr. I.A. Ronquillo

with Mr. H. Rosa as Secretary and Mr. Jackson as Adviser listed the several resolutions requesting FAO assistance adopted by the Council in the following order of priority:

Expanded Program of Technical Assistance (EPTA)

1. Gear Technologist (see above).
2. Naval Architect (see above).
3. Seminar on Fisheries Credit (see 41).
4. Training Centre on Induced Spawning of Fish (see 32).
5. Training Centre for Instructors in boat building (see 40).
6. IIOE Fisheries Subject Leader (see 35).

Regular Program

1. Trawling Survey (see 24).
2. Fisheries Census (see 30).
3. Rastrelliger (see 38).
4. Fresh (Wet) Fish Preservation (see 28-29).
5. Tuna (see 38).

The Working Party decided that no priorities could be given to "Advice by HQ Staff", but it was agreed that the

interested countries will inform FAO as soon as possible on their needs for advice from HQ so that visits by members of the staff can be properly planned to one or more countries.

The proposed Indian Ocean Special Fund Project was not considered by the Group because it is only a request for Special Fund assistance.

RECOMMENDATIONS TO EXECUTIVE COMMITTEE

The Executive Committee was requested to implement 10th Session Resolution 1/62, taking note of the fact that the Government of Australia will sponsor the Amendment of the Agreement.

The Executive Committee was requested to consider the question of revision of the terms of reference of the two Technical Committees in the light of the proposal to rearrange the branches and sections of FAO Fisheries Division.

The Council noted that many of the Technical Papers and Working Papers distributed at this session lacked tables and figures. The absence of this material from these documents seriously impaired their usefulness, and in many cases completely frustrated discussion of them. The Council supposed that the absence of these tables and figures resulted from operational difficulties in the Regional Office, more particularly from the inflexibility of the mimeograph process used for reproducing the papers. The Council strongly recommended that arrangements could be made at future sessions to have the use of more modern systems with greater capability for facsimile reproduction.

The Council had previously laid down a plan for the systematic

assembly of information from Member Governments on their activities in research, development and administration of their fisheries. This plan, however, does not provide for the assembly of an account of what has happened in the fishery industries of the of the region in the inter-session period; and since the Council considered that its discussions at each Session would be greatly benefitted by the availability of such an account, it resolved to request the Executive Committee to prepare such a report in each inter-session period for submission at the Session. The Council suggested that the report should consist of summary statistical tabulations with graphical presentation, where possible, of significant trends and discussion on evidence on the nature and origin of these trends.

The Council noted that, during its existence similar resolutions and recommendations on each subject had been adopted from time to time, and further noted that there is no convenient summary of these resolutions and recommendations and actions resulting from them. The Council therefore resolved to request the Executive Committee to prepare for the next Session a summary listing all Council resolutions and recommendations, categories perhaps by general subjects, and a summary of the action resulting from each.

The Council noted that difficulties may arise with respect to communications between the Secretariat, acting on behalf of the Council, and Member Governments, particularly in the Secretary's efforts to transmit information to technical people. The Council therefore resolved

to request the Executive Committee to examine this problem and to submit at the next Session suggestions for its solution.

The Council recalled that at the 10th Session a request was addressed to the Executive Committee that it present its report in two sections, one to contain a factual account of the Committee's work during the inter-session period and the second to contain proposals from the Committee relating to the future activities of the Council and to its budget. The Council considered that it could expect its Executive Committee to take a positive lead in indicating the matters that should receive Council attention, and therefore resolved to request the Executive Committee to prepare its subsequent reports in the manner indicated.

Furthermore the Council noted that at its 10th Session it had requested that fuller information be furnished with regard to the travel within the region by members of the Secretariat. The Council pointed out that this information would be of value both to the Council itself in Session and to the Executive Committee in identifying matters on which it might make proposals for future Council action. The Council therefore resolved to repeat its request that future reports of the Executive Committee contain a section describing the reasons for and results of travel in the region by members of the Secretariat.

RECOMMENDATIONS TO TECHNICAL COMMITTEES

The Council considered that the Inter-session reports prepared by Member Governments constitute

a useful record of governmental activity in fields of interest to the Council. It considered, however, that the form of these reports could be improved, and therefore recommended that each report should consist of a narrative section followed by a series of project summaries prepared in accordance with a special outline which is included in this report as Appendix II. The Council also considered that the usefulness of these reports to the Council would be greatly increased if these were made available in duplicated form at the Council session and distributed promptly after the Council session as Occasional Papers. Finally, the Council considered that the foregoing procedure would make it unnecessary for the Technical Secretaries of the Technical Committees to prepare consolidated National Activities Reports; in the Council's view each Technical Committee inter-session report should consist simply of an account of progress in activities initiated by the Council at the preceding session and such recommendations as emerged from those activities.

The Council agreed that subjects for consideration by the Technical Committees should properly be identified by the Council and referred to the Committees; it further agreed it should so refer only such matters on which it could expect that action could be taken; and it agreed that the following procedure should be followed with respect to proposals for such references:

1. identification of the problem and assessment of its consequences to the community generally and to affected individuals;

2. determination of whether the Council has anything useful to contribute to resolution of the problem and is in a position to take effective action with regard to it;
3. definition of course of action that might be taken to resolve the problem;
4. selection of one or more appropriate courses of action;
5. presentation of specific proposals as to how and by whom these courses of action should be pursued.

COUNCIL OFFICE BEARERS

Election of the Chairman and Vice-Chairman

The Delegate for Malaysia nominated and the Delegate for United Kingdom seconded Mr. Lee Bong Nai of the Korean Delegation as Chairman. The nomination was supported by the Delegate for Japan and Mr. Lee Bong Nai was declared elected, with acclamation.

The Delegate for Ceylon nominated, and the Delegate for Pakistan seconded Mr. Soong Min Kong as Vice-Chairman. The Delegate for USA supported the nomination and Mr. Soong Min Kong was declared elected, with acclamation.

Mr. K. Gopinatha Pillai, retiring Chairman, became Member (ex officio) of the Executive Committee.

*Technical Committee Office
Bearers*

Technical Committee I, for the Inter-session period and 12th Session:

Chairman: Mr. J.C. Marr
Rapporteur: Mr. I. Ronquillo

Technical Committee II, for the 11th Session and Inter-session period:

Chairman: Dr. M.R. Qureshi
Rapporteur: Mr. Sant Bandhukul

SYMPOSIUM FOR THE 12TH SESSION

The Council adopted a recommendation that the Symposium Subject for the 12th Session should be "Fisheries Training and Education"

Dr. G.L. Kesteven was designated Convener.

TIME AND PLACE OF 12TH SESSION

There being no invitation offered by any Member Government present, the Council invoked the provision of Rule II placing the responsibility for selecting the time and place for the next Session on the Chairman, in consultation with the Director-General and subject to the approval of a majority of Member Governments.

The Delegate for USA said that his Government had under consideration the question of inviting the Council to hold its 12th Session in Honolulu and would communicate later with the Secretariat.

FORMAL RESOLUTIONS

The Delegate for U.K. moved and the Council adopted the following resolution:

The Council, having convened in Plenary Session desires to place on record its very deep appreciation of the courtesy and generosity of Duli Maha Mulia Seri Paduka Baginda Yang di-Pertuan Agong of Malaysia and of the Government of Malaysia in extending to it an invitation to hold its 11th Session in Kuala Lumpur, Malaysia.

Further the Council wishes to record its deep gratitude to the Hon'ble Minister and Hon'ble the Assistant Minister together with the officers of the Ministry of Agriculture & Co-operatives for the courteous enthusiastic and untiring assistance rendered by them and which has made so notable a contribution to the success of the Session.

The Delegate for Thailand moved and the Council adopted a resolution, that the Council express to the Malaysia Organizing Committee and the officers and staff provided for the day to day operations of the Council Session a sincere and personal expression of appreciation for their willing and friendly assistance during the Council Session.

The Delegate for Japan moved and the Council adopted a resolution that the Council express to the Hon'ble the Chief Minister of Penang a sincere vote of thanks for the hospitality and courtesy extended to the Council's participants during their visit to Penang Island.

The Delegate for Korea moved and the Council adopted a resolution that the Council express to the Hon'ble the Chief Minister of Malacca a sincere vote of thanks for the hospitality and courtesy extended to the Council's participants during their visit to State of Malacca.

The Delegate for Philippines moved and the Council adopted a resolution, that the Council express to the Professor and Staff of the Zoology Department of the University of Malaya its sincere appreciation of the courtesy and hospitality accorded to them on the occasion of the visit by Delegations to the University.

CLOSING CEREMONY

Following adoption by the

Council of the Summary Report of the Eleventh Session, the Chairman welcomed Ixeh Sulainan bin Bulon, Assistant Minister of Agriculture and Co-operatives, Malaysia, who received on behalf of his Government the expression of appreciation from the Council.

In a short speech, the Assistant Minister formally brought to a close the Council's Eleventh Session.

APPENDIX I

FINANCIAL AND BUDGET REPORT

In accordance with the instructions issued by the Council, the Financial and Budget Statement as presented in Appendix I in this report was distributed to Member Governments along with the letter of invitation to attend the 11th Session.

Every effort has been made to bring the report up-to-date but certain outstanding commitments must of necessity be entered merely as estimates.

The Budget Estimates for the period 1965-66 show a slight increase in the printing costs anticipated, due largely to an increased demand for IPFC publications and the introduction during 1965 of a new series of publications under the title "Regional Studies".

The Secretariat has already in hand 7 papers to be issued in this series and additional papers and studies are anticipated.

Other items in the Budget namely Executive Committee Travel and Meeting costs remain stable but during 1966-67 there is an anticipated increase in costs under Item D. Miscellaneous.

The anticipated increase is designed to cover additional postage costs for the distribution of publications and the rising postal costs generally.

No provision is made in the Council's budget for the cost of interpretation services as these costs are normally borne on the budget of FAO Headquarters. In this connection FAO endeavours to ensure that regional meetings are held as nearly as possible consecutively so that the cost of fares for interpreters is kept at a minimum.

IPFC Statement of Expenditure for January-December 1963

	<i>Expenditure</i>	<i>Budget Allocation</i>
	US\$	US\$
A. <u>EXECUTIVE COMMITTEE TRAVEL</u>	1,509.08	1,500.00
34th Executive Committee 9-16 June 1963, Kuala Lumpur, Federation of Malaysia		
Chairman: Fare 329.90		
K.G. Pillai Subsistence <u>155.00</u>		
	484.90	
Chairman IPFC: Fare 597.10		
Tech. Com. II Subsistence <u>174.00</u>		
Lee Bong Nai <u>771.10</u>		
Member: Fare 127.70		
J.A. Tubb Subsistence <u>125.38</u>		
	253.08	
B. <u>PRINTING</u>		
650 copies and reprints of CAB	2,011.24	2,000.00
<u>1/</u>		
No. 35 124.43 (1962)		
No. 36 148.02		
No. 37 180.86		
1300 copies IPFC Procs. 10(1)	1415.24	
1300 " " " 10(2) <u>2/</u>	254.00 (1962)	
Mailing charges for worldwide distribution of 1000 copies of packing and sea freight quantity to Rome	257.60	
Letter head printing	9.52	

1/ At end of 1962 there was a balance of \$378.87 out of Printing Funds allocation (1962). This was carried over for use in 1963 and from this surplus was paid 650 copies of C.A.B. No. 35 amounting to \$124.43 leaving balance of \$254.44.

2/ During latter part of 1963, Section II of the IPFC 10th Proceedings underwent printing. In setting of partial printing completed, \$254 was paid from balance funds, 1962, the balance of the Bill to be paid in 1964 when printing is completed.

	<i>Expenditure</i>	<i>Budget Allocation</i>
	US\$	US\$
C. <u>MEETING</u>		Nil
(No session of the IPFC took place during 1963)		
D. <u>MISCELLANEOUS</u>	1,038.73	1,000.00
Postage and telegram	581.59	
Stationery	447.58	
Expenditure at FAO Office New Delhi, on behalf of IPFC		

IPFC Statement of Expenditure for Jan.-Dec. 1964 (estimated)

	<i>Expenditure</i>	<i>1964 Budget Allocation</i>
	US\$	US\$
A. <u>EXECUTIVE COMMITTEE TRAVEL</u>	1,348.00	1,500.00
35th ExCo Meeting, Bangkok, Thailand, June 22-28.		
Chairman:	Fare	363.00
K.G. Pillai	Subsistence	204.00
(India)	(est.)	567.00
Member:	Fare	533.00
Lee Bong Nai	Subsistence	248.00
(Korea)	(est.)	781.00
B. <u>PRINTING</u>	3,005.75	3,000.00
650 copies and reprints of CAB		
No. 38	113.41	
No. 39	138.17	
No. 40	118.27	
No. 41	120.00	
1300 copies of IPFC Procs. 10(2)	1423.40	
& reprints balance payment		
1300 copies of IPFC Procs. 10(3)	850.00	
(est.)		
Mailing charges for worldwide distribution of 1000 copies of IPFC Procs. 10(2)	242.50	

	<i>Expenditure</i>	<i>1964 Budget Allocation</i>
	US\$	US\$
C. <u>MEETING</u>		
11th Session, IPFC, Kuala Lumpur, Malaysia, 16-31 October 1964		600.00
D. <u>MISCELLANEOUS</u> (to Sept. 1964)	1,506.05	1,500.00
Postage and Telegrams Jan.-Sept.	567.69	
Stationery supplies Jan.-Sept.	38.36	
Postage & Telegram Oct.-Dec.(est.)	300.00	
Stationery supplies " " "	600.00	

It is anticipated that funds already allocated for the Council's use during 1964 will suffice to cover the anticipated expenditure.

Photo offset printing equipment has been installed in the FAO Far East Regional Office and it is estimated that this equip-

ment will appreciably reduce printing charges for IPFC publications.

It is likely, however, that the equipment will not be installed for one or two months and it will take some time thereafter to train the operators.

IPFC Estimates of Expenditure Jan.-Dec. 1965

	<i>Estimate of Expenditure</i>	<i>Budget Allocation</i>
	US\$	US\$
A. <u>EXECUTIVE COMMITTEE TRAVEL</u>		1,000.00
(including subsistence allowance) 38th Executive Committee Meeting	1,500.00	
B. <u>PRINTING</u>		
1400 copies IPFC 11th Proceedings	3,000.00	3,950.00
750 copies Current Affairs Bulletin Nos. 42, 43, 44	450.00	
750 copies Regional Studies	500.00	
C. <u>MEETING</u>		
(No meeting scheduled for 1965)	-	-
D. <u>MISCELLANEOUS</u>	1,500.00	1,500.00
Postage, telegram and stationery		
	Total	<u>US\$6,450.00</u>

NOTES

A. EXECUTIVE COMMITTEE TRAVEL

The Rules of Procedure require a meeting of the IPFC Executive Committee to be held once a year between sessions. It is anticipated that a meeting of the Committee will be held about the middle of 1965 and budget allocation has been made to cover the costs of fares and subsistence allowances for members of the Executive Committee to attend this meeting.

B. PRINTING

Allocations have been made to permit the printing of IPFC 11th Session Proceedings, 3 issues of IPFC Current Affairs Bulletin and 4 Regional Studies covering fisheries subjects within the purview of the Council. These studies are a new series of publications, the material for which has been accumulated and is being

accumulated as a result of the activities of IPFC Technical Committees.

C. MEETING

The Council's Agreement and Rules of Procedure call for one meeting every two years unless the Council's Member Governments or the Executive Committee find it necessary to convene an extraordinary meeting after a shorter interval.

Accordingly, no provision is made for meeting expenses during 1965 but should such an extraordinary meeting to found necessary, FAO will be approached to make such financial provision.

D. MISCELLANEOUS

Under this head, provision is made for postage, telegrams and purchase of stationery and supplies to cover the normal work of the IPFC Secretariat.

IPFC Estimates of Expenditure 1966-67

		<i>Estimated Expenditure</i>
		US\$
A. <u>EXECUTIVE COMMITTEE TRAVEL</u>		3,157.50
39th Executive Committee Meeting	\$1,500.00	
40th " " " (2 days)	105.00	
41st " " " (1 day)	52.00	
42nd " " "	1,500.00	
B. <u>PRINTING</u>		5,000.00
a) IPFC 12th Session Proceedings	3,000.00	
b) Current Affairs Bulletin, 6 issues	1,000.00	
c) Regional Studies	1,000.00	

APPENDIX II

LIST OF DELEGATES AND OBSERVERS

<i>Member Government</i>	<i>Name</i>	<i>Designation</i>	<i>Address</i>
Australia	Dr. G.L. Kesteven (Delegate)	Assistant Chief	CSIRO, Division of Fisheries and Oceanography, P.O. 21, Cronulla, N.S.W., Australia
	Mr. N.V. Harris (Alternate)	Superintendent of Fisheries	Chief Secretary's Dept., Sydney, N.S.W., Australia
	Mr. C. Tadgell (Adviser)	Third Secretary	Australian High Commission, 44 Ampang Road, Kuala Lumpur, Malaysia
Ceylon	Mr. V.L.C. Pietersz (Delegate)	Assistant Director of Fisheries (Administration and Socio-Economics)	Dept. of Fisheries, P.O. Box 531, Colombo, Ceylon
France	Monsieur M. Legand (Delegate)	Chef de Section d'Océanographie biologique	Institut français d'Océanie, B.P. 4, Noumea, New Caledonia
	Monsieur R.J. Dussol (Adviser)	Sales Engineer	c/o Optorg Co. Ltd. 40 Ampang Road, Kuala Lumpur, Malaysia
India	Mr. K. Gopinatha Pillai (Delegate)	Director of Fisheries, Kerala State, India	Fisheries Dept. Kerala, Trivandrum-3, Kerala State, India
Japan	Dr. Takashi Ino (Delegate)	Senior Research Officer	Research Division, Fisheries Agency, Ministry of Agriculture & Forestry, 2-1 Kasumigaseki, Chiyoda-ku, Tokyo, Japan

<i>Member Government</i>	<i>Name</i>	<i>Designation</i>	<i>Address</i>
Japan (Cont.)	Mr. K. Suzuki (Alternate)	Attache	Embassy of Japan, Kuala Lumpur, Malaysia
Korea	Mr. Lee, Bong Nai (Delegate)	Director	Bureau of Fisheries, Ministry of Agri- culture and Forestry, Seoul, Korea
	Mr. Choung, Bo Young (Alternate)	3rd Secretary	Korean Embassy, Kuala Lumpur, Malaysia
Malaysia	Mr. Soong Min Kong (Delegate)	Director of Fisheries	Division of Fisheries Ministry of Agri- culture and Coopera- tives, Jalan Swetten- ham, Kuala Lumpur, Malaysia
	Tengku Ubaidillah bin Tengku Abdul Kadir (Alternate)	Ag. Deputy Director of Fisheries	Division of Fisheries Ministry of Agri- culture and Coopera- tives, Jalan Swetten- ham, Kuala Lumpur, Malaysia
	Dr. Tham Ah Kow (Expert)	Director, Fisheries Biology Unit	Department of Zoology, University of Singa- port, Bukit Timah Road, Singapore-10
	Professor Louis Berube (Expert)	Colombo Plan Consultant Fisheries & Cooperatives	Planning & Research Division, Ministry of Agriculture and Cooperatives, Jalan Swettenham, Kuala Lumpur, Malaysia
	Dr. S.W. Ling (Expert)	FAO/ETAP Fish Culture expert	Fisheries Research Institute, Glugor, Penang, Malaysia
	Mr. Chin Phui Kong (Adviser)	Fisheries Officer	Fisheries Branch, Department of Agri- culture, Jesselton, Sabah, Malaysia

<i>Member Government</i>	<i>Name</i>	<i>Designation</i>	<i>Address</i>
Malaysia (Cont.)	Mr. Ong Kee'Bian (Adviser)	Senior Assistant Fisheries Officer (Inland Fisheries Division)	Department of Agri- culture, Kuching, Sarawak, Malaysia
	Mr. Lim Ewe Hock (Adviser)	Senior Primary Production Officer (Fisheries)	Primary Production Department, Ministry of National Develop- ment, Upper Pickering Street, Singapore 1, Malaysia
	Mr. D. Pathansali (Adviser)	Fisheries Officer (Research)	Fisheries Research Institute, Glugor, Penang, Malaysia
	Mr. V. Selvarajah (Adviser)	Fisheries Officer (Technical)	Fisheries Research Institute, Glugor, Penang, Malaysia
	Mr. Ong Kah Sin (Adviser)	Fisheries Officer (Research)	Fisheries Research Institute, Glugor, Penang, Malaysia
	Mr. Ananda Jothy (Adviser)	Fisheries Officer (Research)	Fisheries Research Institute, Glugor, Penang, Malaysia
	Mr. Yoong Swee Yin (Adviser)	Fisheries Officer	Fisheries Office, Kuala Trengganu, Trengganu, Malaysia
	Mr. Ragavan Nair (Adviser)	Fisheries Officer	Selangor Fisheries Office, Division of Fisheries, Ministry of Agriculture and Cooperatives, Jalan Swettenham, Kuala Lumpur, Malaysia
	Mr. B. Balachandran (Adviser)	Fisheries Officer	Fisheries Office, Johore Bahru, Johore, Malaysia
	Mr. M. Balasingam (Adviser)	Fisheries Officer (Technical)	Division of Fisheries, Ministry of Agri- culture and Coopera- tives, Jalan Swetten- ham, Kuala Lumpur, Malaysia

<i>Member Government</i>	<i>Name</i>	<i>Designation</i>	<i>Address</i>
Malaysia (Cont.)	Mr. A. Karim (Adviser)	Fisheries Officer (Extension)	Division of Fisheries, Ministry of Agriculture and Cooperatives, Jalan Swettenham, Kuala Lumpur, Malaysia
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	Mr. Sanan Ruamragsa (Adviser)	Senior Technical Fisheries Officer	Division of Fisheries Investigation, Dept. of Fisheries, Minis- try of Agriculture, Rajadamnern Avenue, Bangkok, Thailand
	Miss Tasanee Sorasuchart (Adviser)	Junior Lecturer	Kasetsart University, Bangkhen, Thailand
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	Dr. Karl F. Lagler (Adviser)	Fishery Adviser Kasetsart/Hawaii Contract (Prof. of Fish- eries and Zoology University of Michigan, Ann Arbor, Michigan U.S.A.)	USOM, Agriculture Division, American Embassy, Bangkok, Thailand
U.K.	Mr. A.P. Richardson (Delegate)	Assistant Director of Fisheries	Agriculture and Fisheries Department, Li Po Chun Chambers, Connaught Road, Central, Hong Kong

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	Dr. W.M. Chapman (Adviser)	Director	Van Camp Foundation San Diego, California, U.S.A.
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	Mr. Tran Van Tri (Adviser)	Chief, Aquatic Resources Ex- ploitation Service	Directorate of Fisheries, P.O. Box 340, Saigon, Vietnam

NON-MEMBER GOVERNMENT

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OBSERVER ORGANIZATIONS

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<i>Organization</i>	<i>Name</i>	<i>Designation</i>	<i>Address</i>
Pan Indian Ocean Science Association (PIOSA)	Dr. S.S. Dhaliwal (Observer)		Department of Zoology, University of Malaya, Pantai Valley, Kuala Lumpur, Malaysia
South Pacific Commission (SPC)	Monsieur M. Legand (Observer)	Chef de Section d'Océanographie biologique	Institut français d'Océanie, B.P. 4, Noumea, New Caledonia
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United Nations Organization (UNO) and United Nations Technical Assistance Board (UNTAB)	Mr. D. Blickenstaff (Observer)	Regional Representative of UNTAB and Director of Special Fund Programmes in South East Asia	Post Office Box 3544, Kuala Lumpur, Malaysia
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Mr. Abdullah bin Omar	Asst. Conference Liaison Officer	Ministry of Agriculture and Cooperatives, Swettenham Road, Kuala Lumpur, Malaysia
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Mr. J.A. Chong	Documentation Officer	Veterinary Division, Ministry of Agriculture and Cooperatives, Swettenham Road, Kuala Lumpur, Malaysia

APPENDIX III

LIST OF DOCUMENTS

INCIDENTAL PAPERS:

IPFC/C64/INC	1	Draft Programme.
	1 (Fr.)	Programme Provisoire.
	1 (Rev. 1)	Draft Programme.
	2	Provisional List of Documents.
	3	Provisional List of Delegate and Observers.
	4	Distribution of documents.
	5	Programme - Film shows.
	6	Order of the Day - Tuesday, 20th October, 1964.
	7	Reference Documents.
	8	Order of the Day - Wednesday, 21st October, 1964.
	9	Opening Statements.
	9 (Add. 1)	- ditto -
	9 (Add. 2)	- ditto -
	10	Order of the Day - Tuesday, 22nd October, 1964.
	11	Order of the Day - Friday, 23rd October, 1964.
	12	Order of the Day - Tuesday, 27th October, 1964.
	13	Order of the Day - Wednesday, 28th October, 1964.
	14	Order of the Day - Friday, 30th October, 1964.
	15	Order of the Day - Saturday, 31st October, 1964.

WORKING PAPERS:

IPFC/C64/WP	1	Provisional Agenda.
	1 (Fr.)	Ordre du jour provisoire.
	1 (Rev. 1)	Provisional Agenda.
	1 (Rev. 2)	Agenda.
	2	Freeze-drying of Fish.
	3	Provisional Agenda of Technical Committee II, Sub-Committees on Craft and Gear and Food Technology.
	4	Technical Committee II. Notes on the election of the office bearers of the Technical Committee II.
	5	Unit Fisheries of the Philippines. Technical Committee I, Sub-Committee on Stock Assessment.
	6	Tropical Fish Culture Research Institute, Malacca, Malayan States, Malaysia.

- IPFC/C64/WP 7 Inter-session Report (1963-64) of Technical Committee II: Craft and Gear Sub-Committee and Food Technology Sub-Committee submitted to the 11th Session of the IPFC.
- 8 Inter-session Report (1963-64) of Technical Committee II: Socio-Economics and Statistics Sub-Committee.
- 8 (Add.1) - ditto -
- 9 Technical Committee II - Publication of Technical Papers -Some notes for the Editorial Working Group.
- 9 (Rev.1) - ditto - (revised)
- 10 Technical Committee II - Notes on topics for discussion by Technical Committees and the Sub-Committees on Craft and Gear, and Food Technology.
- 11 Technical Committee II - Draft Programme of work of the Committee and its Sub-Committees.
- 12 Report of the Executive Committee.
- 13 Proposal concerning a FAO World Fisheries Census by T. Yamamoto.
- 13 (Add.1) Addendum to proposal concerning a FAO World Fisheries Census by T. Yamamoto.
- 14 A survey of fish transport to intermediate and distant markets with particular reference to freight rates.
- 15 Inter-Session Report (1962-64) of Technical Committee I.
- 15 (Add.1) Supplementary material for Inter-Session Report (1962-64) of Technical Committee I.
- 16 Inter-Session Report of the Fisheries Oceanography Sub-Committee, Technical Committee I, Indo-Pacific Fisheries Council 11th Session.
- 16 (Add.1) Supplementary Material to Inter-Session Report of the Fisheries Oceanography Sub-Committee Technical Committee I - Report on Fisheries Oceanography in Australia.

- IPFC/C64/WP 16 (Add.2) Supplementary Material to Inter-Session Report of the Fisheries Oceanography Sub-Committee Technical Committee I - Report on Fisheries Oceanography in Japan.
- 16 (Add.3) Supplementary Material to Inter-Session Report of the Fisheries Oceanography Sub-Committee Technical Committee I - Present State and Future project of Oceanography in Korea.
- 16 (Add.4) Supplementary Material to Inter-Session Report of the Fisheries Oceanography Sub-Committee Technical Committee I - Report on Fisheries Oceanography in Malaysia.
- 16 (Add.5) Supplementary Material to Inter-Session Report of the Fisheries Oceanography Sub-Committee Technical Committee I - Report on Fisheries Oceanography, ORSTOM, IFO, Noumea, New Caledonia.
- 17 Trawling in Singapore and the States of Malaya and the problem raised by M.K. Soong, Director of Fisheries, Malaysia.
- 18 Inter-Session Report of the Stock Assessment Sub-Committee, Technical Committee I, Indo-Pacific Fisheries Council, 11th Session.
- 19 Provisional Agenda of Technical Committee I and Sub-Committees on Stock Assessment and Fisheries Oceanography.
- 19 (Rev.1) Provisional Agenda of Technical Committee I.
- 20 Note on a Fishery Oceanography Study in the Indian Ocean.
- 21 Pacific Ocean Station Data Summary Charts.
- 22* Commercial Fisheries in the Western North Pacific (Kuroshio Area) - Preliminary Draft, prepared by Bureau of Commercial Fisheries, Fish and Wildlife Service, Honolulu, Hawaii.
- 23 Unit Fisheries as objects of study in Fisheries Science by G.L. Kesteven and G.R. Williams.

*Restricted distribution.

IPFC/C64/WP	24	Australian Unit Fisheries
	25	Provisional Agenda of Technical Committee II, Socio-economics and Statistics Sub-Committee.
	26	Secretary's Report on Credentials.
	26 (Add.1)	Addendum to Secretary's Report on Credentials.
	27	Council Documents related to the work of Technical Committee I.
	28	Fishery Cooperatives in Malaysia by Mr. Abdul Samad bin Haji Salleh.
	29	Technical Committee II - Elections.
	30	IPFC 10th Session Recommendations concerning the Socio-economics and Statistics Sub-Committee.
	31	Reference Documents Socio-economics and Statistics Sub-Committee.
	32	Symposium on Increased Fish Consumption by Improved Handling and Distribution.
	33*	Organizational charts of proposed expansion and development of the Fisheries Division, FAO.
	34	Technical Committee II - Report of the Editorial Working Group.
	35	Report on Fisheries Census.
	35 (Rev.1)	- ditto - (revised)
	36	Technical Committee II - Report on Host Country Problems.
	37	Technical Committee II - Session Report.
	37 (Rev.1)	- ditto - (revised)
	38	Technical Committee I - Report on Host Country Problems - Trawling.
	38 (Add.1)	Philippine experience submitted by Mr. I. Ronquillo.

* Restricted distribution.

IPFC/C64/WP	38 (App.2)	Development of Trawl Fisheries in Thailand and the conflict between inshore fishing and trawling.
	38 (App.3)	Development of Hong Kong fishing fleet submitted by Mr. A.P. Richardson.
	38 (App.4)	Trawling in Vietnam.
	39	Technical Committee II - Report on Fisheries Statistics and Fishermen's Co-operatives.
	40	Technical Committee II - Report on Fishermen's Credit.
	41	Host Country Problem - Trawling.
	42	Report on the Symposium on increasing fish consumption by improved handling and distribution.
	43	Second Report of the Working Group on Publication (Committee I).

TECHNICAL PAPERS: Note: Where Abstracts and/or Summaries have been provided these have been embodied in the paper.

			<u>Subject</u>
IPFC/C64/TECH	1	The Breeding of giant gouramy (<i>Osphronemus goramy</i> Lacepede) in Ceylon and the rearing of its fry in the Departmental fish hatcheries..... by H.H.A. Indrasena and J.D. de Silva	Fish Culture
	2.	Designs of trawling gear..... by G.K. Kurian, A.V.V. Satyanarayana and R.S. Nair	Fishing Gear
	3	The fishing nets and traps in a section of the middle reaches of Ganga river system of India.. by R.K. Saxena	Fishing Gear
	4	Studies on some aspects of the biology of <i>Glossogobius giurta</i> (Hamilton) with notes on its fishery in Hooghly estuary..... by R.M. Bhowmick	Biology

Subject

IPFC/C64/TECH	5	Economics of outboard motors in small fishing crafts in Saurashtra (India)..... by K. Chidambaram	Fishing Craft
	6	Fisheries Co-operatives and their role in marketing of fish in India with special reference to Gujarat..... by K. Chidambaram and R.G. Dabhi	Socio-economics
	7	Preliminary observations on the 15.5 meter shrimp and fish trawl in relation to the technical parameters of fishing operations. Part I - Variations in scope ratios, its effect on tilt of otter boards and catches. II - Variations in the scope ratio, its effect on the spread of otter boards, opening width of net, angle of divergence at bosom, vertical height of net and catches..... by M.J. Pradhan and C. Pattabiraman	Fishing Gear
	8	Trawling in Tropical Waters, (India)..... by K. Chidambaram	Exploration Fishing
	9	Dehydration of prawns by rotary dryers..... by K.K. Balachandran and A.N. Bose	Food Technology
	10	Results of bottom trawling in Indian Seas by R/V <u>Anton Brunn</u> in 1963..... by T.S. Hida and W.T. Pereyra	Exploration Fishing
	11	Collection and storage of data for stock assessment studies..... by G.R. Williams	Biology
	12	On the age and growth of some estuarine prawns..... by T. Rajyalakshmi	Biology
	13	Fluctuations in prawn landings in the Godavari estuarine system..... by M. Subrahmanyam	Biology

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	15	Experiments and fishing with shrimp trawls. On the effectiveness of Beam Trawl Net..... by S.D. Deshpande, V.C. George and T.M. Sivan	Fishing Gear
	16	On the prawn trawling experiments conducted off Kakinada (Andra Pradesh)..... by A.V. Sebastian, K.A. Sadanandan and A.V.V. Satyanarayana	Fishing Gear
	17	The point of origin and the probable order of appearance of scales in the Indo-Pacific chub mackerel, <i>Rastrelliger neglectus</i> in the Gulf of Thailand..... by A.P. Isrankura and P. Naiyanetr	Biology
	18	Prawn resources of Southern Maharashtra (Ratnagiri). An outlook for a new industry..... by M.R. Ranade and S.M. Wankar	Biology
	19	Culture of brackishwater fishes in impoundments in West Bengal, India..... by B.B. Pakrasi, P.R. Das and S.C. Thakurta	Fish Culture
	20	Limitations of the method of determining the trawl door spread from the distance between the warps at two particular points..... by M.J. Pradhan	Fishing Gear
	21	Analysis of stomach contents of <i>Rastrelliger neglectus</i> in the Gulf of Thailand..... by A. Lursinsap	Biology
	22	Legislative and administrative aspects of water pollution control..... by J.E. Carroz	Water Pollution

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	23	Fish hydrolyzates from commercial Philippines fish species. Part I Preliminary studies on hydrolyzed fish protein..... by L.G. Salcedo, G. Guevara and S.V. Bersamin	Food Technology
	24	Studies on the effect of potassium sorbate on the keeping quality of smoked Philippine market fishes... by S.V. Bersamin, N.G. Macalincag and A.S. Legaspi	Food Technology
	25	Comparative efficiencies between Amilan net and cotton net for small beam trawlers and surrounding seines..... by C. Miyazaki	Fishing Gear
	26	Length-weight relationships of chub mackerel (<i>Rastrelliger sp.</i>) in the Gulf of Thailand, 1963..... by P. Vanichkul and V. Hongskul	Biology
	27	An analysis of plankton samples collected from the west coast of Peninsula Thailand, 1963-64..... by A. Lursinsap and S. Savapepan	Biology
	28	Freeze-drying food in Japan..... by S. Kimura	Food Technology
	29	Purse seine fisheries development and comparison between one and two boat-type purse seine..... by M. Nomura	Fishing Gear
	30	Development of bottom paints for wooden boats..... by T. Maruyama and M. Hirai	Fishing Craft
	31	Progress on improvement of marine fisheries statistics in Thailand.... by T. Yamamoto and P. Sukondhaman	Statistics

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	33	The modern fish finder and its application in Japan..... by Y. Tawara	Fishing Gear
	34	<i>Puntius javanicus</i> Blkr. in Malaysia..... by M.K. Soong	Fish Culture
	35	Progress in the hormone spawning of pond fishes in Taiwan..... by Yun-An Tang	Fish Culture
	36	Notes on the biology of the cockle, <i>Anadara granosa</i> L..... by D. Pathansali	Biology
	37	The early developmental stages of <i>Scylla serrata</i> Forskal (Crustacea, Portunidae) reared in the laboratory by Ong Kah Sin	Shell Fish Culture
	38	A method for the determination of the suitability of coastal regions for the construction of brackish water ponds..... by J.J. Schuurman	Fish Culture
	39	A preliminary study on the storage of salted fish in cold rooms..... by V. Selvarajah	Food Technology
	40	Fish marketing automatic convertible corporation. A suggested solution to the problem of Co-operative Fish Marketing in emerging countries.. by L. Berube	Marketing
	40	(Summary Version of above)	
	41	A Fish Marketing Survey in Malaya.... by Rashid E. Mamajiwalla	Marketing
	42	Fish population and ecological studies of flood-water fisheries in Pra Nakorn Sri - Ayuthaya Province..... by S. Tongsanga and P. Kessunchai	Biology

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	44	A brief note on Fisheries insurance in Japan..... by T. Nakamura	Socio-economics
	45	Recent activities in the field of fisheries statistics in Japan..... by T. Nakamura and K. Kawada	Socio-economics
	46*	Limnological Survey of Laguna de Bay. A Pilot study on Aquatic Productivity..... by H.R. Rabanal, P.A. Acosta and M.N. Delmendo	Biology
	47*	Notes on a rare case of Turtle poisoning..... by I.A. Ronquillo and P. Caces-Borja	Biology
	48	Notes on the infestation of <i>Chanos</i> <i>chanos</i> by a parasitic Isopod..... by I.A. Ronquillo and P. Caces-Borja	Biology
	49	A note on the technique of spawning <i>Puntius javanicus</i> Blkr. for fry production..... by M.K. Soong	Biology
	50	Fiberglass reinforced plastic in building small fishing boats..... by E. Estlander	Fishing Craft

SYMPOSIUM: Subject: Increased fish consumption through improved
fish handling and distribution.

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	2	A brief report on the service of the Tokyo Metropolitan Food Inspection Office of the Central Wholesale Market..... by H. Abe	
	3	The production and use of ice..... by J.J. Waterman	
	4	Increased fish consumption through improved fish handling and distribution..... by S.A. Ali	

*Limited Distribution.

- IPFC/C64/SYM
- 5 Problems in the use of antibiotics for preserving the freshness of fish.....
by T. Kawabata
 - 6 The technical and economic aspects of ice production.....
by L. Blackler
 - 7 Increased fish consumption in India.....
by K. Chidambaram
 - 8 Chilling of fish with ice.....
by J. Lorentzen
 - 9 Production and use of ice.....
by L.J.R. de Bock
 - 10 Application of ice and sea - or salt-water (Mizugori) to fish.....
by E. Noguchi
 - 11 Studies on handling, preservation and processing of prawn in India.....
by V.K. Pillai, M.R. Nair and D.R. Choudhury
 - 12 Increased fish consumption through improved fish handling and distribution in Pakistan...
by M.R. Qureshi
 - 13 A survey of fish handling practice on board Japanese fishing vessels.....
by E. Noguchi
 - 14 Fresh fish handling in Maharashtra State, India.....
by Department of Fisheries, Maharashtra State, India.
 - 15 Effect of chlortetracycline (Aureomycin) on the keeping quality of fresh-water fish under tropical as well as refrigerated conditions...
by K. Visweshwariah, M.N. Moorjani, D.S. Bhatia, V. Subramanyan, B.R. Baliga and N.L. Lahiry
 - 16 Effect of certain spice oils on the keeping quality of fresh-water fish fillets in conjunction with cold storage.....
by K. Visweswariah and N.L. Lahiry
 - 17 Fresh fish handling in Thailand.....
by (Miss) Bung-orn Kasemsarn and M.C. Kosol Suriyathit Suriyong

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	19	Role of the Government in improving fish handling and distribution..... by T.C. Jones
	20	Production and use of ice..... by A.C. Levinsen
	21	A study on the determination of fish quality by sensory assessment..... by Dong Keun Park and Sung Bok Kim
	22	Fish Handling and Marketing in Korea..... by Hee Un Chang and Ock Seung Bae
	23	A study on the improvement of fish handling during distribution and marketing..... by Sang Ho Shin, Woo Hyun Choi and Dong Suk Chang
	24	Seawater ice for preserving fish in the United States..... by J.W. Slavin
	25	Some examples of fresh fish distribution pro- blems in hot Climates..... by C. Gonzales
	26	Survey of fresh fish handling and distribution in the Philippines..... by S.V. Bersamin, F.R. Gonzales and R.B. Banania
	27	Encouraging fish consumption through retailer and consumer..... by J. Fridthjof
	28	Increasing fish consumption in India..... by Central Institute of Fisheries Technology, Ernakulam, India
	29	Improved methods of handling fresh fish in the United States Part I - Production and use of ice..... by J.A. Dassow
	30	Improved methods of handling fresh fish in the United States Part II - Handling and chilling fresh fish at Sea..... by J.A. Dassow and H.R. Beard

- IPFC/C64/SYM 31 Improved methods of handling fresh fish in the United States
Part III - Use of refrigerated sea water.....
by J.A. Peters and J.A. Dassow
- 32 Improved methods of handling fresh fish in the United States
Part IV - Use of antibiotics for preservation of fresh fish.....
by M.E. Stansby
- 33 Improved methods of handling fresh fish in the United States
Part V - Facilities for distribution of fresh fish.....
by J.A. Dassow
- 34 Improved methods of handling fresh fish in the United States
Part VI - Fishery cooperatives in the United States.....
by L.D. McMullin
- 35 Improved methods of handling fresh fish in the United States
Part VII - Role of the Government.....
by J.A. Dassow
- 36 Ice plant, cold storage and fish freezing facilities for fish in Pakistan.....
by S.A. Jaleel
- 37 Production and use of ice - Hong Kong.....
by Kwok Cheung

CONTRIBUTED PUBLICATIONS: *Note:* The following publications have been made available in limited supply to the Council. These have been distributed as widely as possible. When numbers of copies have been small, distribution has been limited to heads of Delegations only.

- IPFC/C64/CP 1 The Indo-Pacific Fisheries Council, by J.A. Tubb. Reprint, Proc. First All-India Congress of Zoology, 1959, Pt.2: 642-646, 1962.
- 2 Financial assistance policies and administration for Fishery Industries, by E.S. Holliman. FAO Fisheries Study No. 11. Fish.Div., FAO, Rome, 1962.

- IPFC/C64/CP 3 Mechanization of small fishing craft.
Section 1: Outboards.
- 4 Encouraging the use of Protein-rich foods,
by J. Fridthjof. FAO, Rome, 1964.
- 5 Landing and marketing facilities at selected
sea fishing ports. FAO Fish. Rept., 8.
FAO, Rome, 1963.
- 6 Second World Fishing Gear Congress, London,
25-31 May, 1963. FAO Fish. Rept., 11.
FAO, Rome, 1963.
- 7 Proposals for a standard international
statistical classification on fishing areas.
FAO Fish. Div., Econs. Branch, Stats. Sect.,
Rome, 1964.
- 8 Notes for the completion of form Stana I E.
FAO/ICES.
- 9 An International Fishery Statistical System
for Particular Regions. FAO Fish. Div.,
Econs. Branch, Stats. Sect., Rome, 1964.
- 10 Joint FAO/WHO Codex Alimentarius Commission
Committee of Experts on International Standards
for Fish and Fishery Products, Rome, 18-20
February, 1964 (mimeo).
- 11 "Fishermen! Help Us to help you (Australia)".
- 12 The Pituitary gland and its relation to the
reproduction of fishes in nature and in
captivity. An annotated bibliography for the
years 1956 - 1963, by J.W. Atz and G.E. Pickford.
FAO Fish. Biol. Tech. Pap., 37. FAO, Rome, 1964.
- 13 Recommendations pertinent or of interest to the
Indo-Pacific Fisheries Council (IPFC). Advisory
Committee on Marine Resources Research 2nd
Session Rome, 6-12 February 1964. Mimeo document
ACMRR/2/WP 26 (IPFC).
- 13(Fr.) Recommendations concernant ou pouvant intéresser
le Conseil Indo-Pacifique des Pêches (CIPP).
- 14 Note on FAO Scientific Meeting on the Biology
and Culture of shrimps and prawns with a preli-
minary list of their species of economic value
and information on their distribution by H. Rosa.
(Dist. restricted). FAO Fish. Circ., 14, FAO,
Rome, April 1964.

- IPFC/C64/CP
- 15 The Care of the Fishmonger's Fish by G.H.O. Burgess. DSIR (UK) Torry Advisory Note, 1.
 - 16 The Handling of wet fish during distribution. DSIR (UK) Torry Advisory Note, 3.
 - 17 Take care of your catch. DSIR (UK) Torry Advisory Note, 4.
 - 18 Recommendations for the preparation of smoked salmon. DSIR (UK) Torry Advisory Note, 5.
 - 19 Handling inshore fish. DSIR (UK) Torry Advisory Note, 11.
 - 20 Fish display in retail shops. DSIR (UK) Torry Advisory Note, 12.
 - 21 Bulking, shelving or boxing. DSIR (UK) Torry Advisory Note, 15.
 - 22 Preliminary studies on life history of Threadfin Bream (*Nemipterus hexodon*) in the Gulf of Thailand by A.P. Isarankura and S. Pariyanond. Dept. of Fish., Thailand Contr., 1, 1963
 - 23 Fish working premises - material and design. DSIR (UK) Torry Advisory Note, 10.
 - 24 Preliminary studies on life history of Pampano (*Caranx leptolepis*) in the Gulf of Thailand by P. Naiyanetr. Dept. of Fish., Thailand Contr., 2, 1963.
 - 25 Fishery Biological Glossary by U. Pongsuwan. Dept. of Fish., Thailand Contr., 3, 1963.
 - 26 Fish market and terminal, Karachi by S.A. Jaleel. Food and Agric. Council, Pakistan, Min. Agri. & Works, Govt. of Pakistan, Karachi, 1964.
 - 27 Fisheries Statistics of Pakistan (1961-1962) by S.A. Jaleel and S.M.A. Salam Kazmi. Mimeo. 1963.
 - 28 Manual of methods of fish population analysis by J.A. Gulland. (Dist. restricted). FAO Fish. Tech. Pap., 40, Rome, 1964.
 - 29 Improved methods of promoting the consumption of fish in OECD Member Countries (A Report prepared by J. Fridthjof, FAO Food Promotion Expert for the OECD, 1964) - Project 16/63, 1963.

- IPFC/C64/CP 30 Proposals for a standard international statistical classification of fishing craft by L.P.D. Gertenbach (mimeo) ICES S.M. 1964. Statistical committee No. 17.
- 31 Report of the First Session FAO Expert Panel for the facilitation of Tuna Research, Rome 8-12 June, 1964. FAO Fish. Rept., 18, FAO, Rome, 1964.
- 32 Chairman and Secretaries of the Section of the Organizing Committee for the 11th Pacific Science Congress. 6 pp.
- 33 A 35 foot fishing boat - designed for Papuan waters by C. McIntosh, Kanudi Biological Station Port Moresby. Div. Fish. Papua Fish. Tech. Paper 4.
- 34 Outline of Korean Fishing Industry (mimeo). Ministry of Agriculture & Forestry, Seoul, Korea. October 1964.
- 35 Tropical Fish Culture Research Institute, Malacca. Report for 1959-1960.
- 36 Tropical Fish Culture Research Institute, Malacca. Report for 1960-1961.
- 37 Tropical Fish Culture Research Institute, Malacca. Report for 1961-1962.
- 38 On the effect of salinity changes on the activity of the cockle, *Anadara granosa* L. by D. Pathansali. Reprint. Mal. Agric. Journ. 44(1): 18-25, 1963.
- 39 Bibliography on marine and fresh-water Biology. Nat. Sci. Develop. Bd. Div. Documentation. Philippine Scientific Bibliographies Series 6, 98 pp., 1963.
- 40 A general account on the biology of the giant fresh-water prawn, *Macrobrachium rosenbergi*, and methods for its rearing and culturing by S.W. Ling (mimeo), 21 pp., 12 figs.
- 41 Fisheries in the States of Malaya. Division of Fisheries, Ministry of Agriculture & Cooperatives, Kuala Lumpur, Malaysia.
- 42 Fisheries in Malaysia (series of tables). Division of Fisheries, Ministry of Agriculture & Cooperatives, Kuala Lumpur, Malaysia.

REFERENCE MATERIAL: Note: Due to copies being insufficient for distribution, the following publications are available for reference only.

Informe de la Primera Reunion de la Comision Asesora Regional de Pesca par el Atlantico Sud-occidental (Corpas) 10-14 Dec. 1962, Rio de Janeiro.
FAO Informes de Pesca No. 12, FI/R12, Rome, 1963.

Victoria (Australia) - Commercial Fish Production Forms. Fisheries & Wildlife Department, 605 Flinders St. Extension, Melbourne, C. 3, Victoria, Australia.

Tasmania (Australia) - Commercial Fisheries Production Forms. Fisherman's scallop returns. Fisheries Division, Department of Agriculture, Hobart, Tasmania, Australia.

Western Australia -- Commercial Fisheries Production of inshore and estuarine fish. Commercial Fisheries Production of Crayfish. Commercial Fisheries Production of Deep-Sea fish. Fisheries Department, Perth, West Australia.

A list of inland fishery workers in Europe. FAO Fish. Tech. Pap., 15 (Rev. 1); FAO, Rome.

Synopsis of biological data on European grayling (*Thymallus thymallus* (Linnaeus) 1758, by D. Jankovic. FAO Fish. Synopsis, 24; FAO, Rome, 1964.

Note on the return rate of tagged Skipjack *Katsuwonus pelamis*, and the effects of handling by J.C. Marr. Reprint, ICNAF Sp. Publ. 4: 15-16 (North Atlantic Fish Marketing Symposium, 1963).

The Diet and Dentition of *Isistius brasiliensis*, with remarks on tooth replacement in other sharks by D.W. Strasburg. Reprint, Copeia, 1: 33-40, 5 figs., 1963.

An indication of underwater sound production by Squid by R.T.B. Iversen, P.J. Perkins and R.D. Dionne. Reprint, Nature, 199(4890): 250-251, 2 figs., 1963.

REFERENCE MATERIAL:

Preliminary Report on the Marquesan Sardine, *Harengula vittata*, in Hawaii by T.S. Hilda and R.A. Morris. Reprint, Pacific Science, 17(4): 431-437, 3 figs., 2 tables, 1963.

Further Notes on the Identification and Biology of Echineid Fishes by W. Strasburg. Reprint, Pacific Science, 18(1): 51-57, 2 figs., 2 tables, 1964.

Postlarval Scombroid Fishes of the Genera *Acanthocybium*, *Nealotus* and *Diplospinus* from the Central Pacific Ocean by W. Strasburg. Reprint, Pacific Science, 18(2): 174-185, 10 figs., 3 tables, 1964.

A Critique of the Scale Method for Determining the Age of the Alewife, *Alosa pseudoharengus* (Wilson) by J. Rothschild. Reprint, Transactions American Fisheries Society, 92(4): 409-413, 7 figs., 1963.

Graphic Comparisons of Meristic Data by J. Rothschild. Reprint, Copeia, 4: 601-603, 1 fig., 1963.

Tremoctopus violaceus Uses Physalia Tentacles as Weapons. Reprint, Science, 139(3556): 764-766, 1 fig., 1963.

Unique Shape of the First Elongate Haemal Spine of Albacore, *Thunnus alalunga* (Bonnaterre) by W.M. Matsumoto. Reprint, Copeia, 2: 460-462, 1 fig., 1963.

Skipjack - A World Resource by Staff of the Bureau of Commercial Fisheries Biological Laboratories, Honolulu, San Diego and Stanford. Fish and Wildlife Service Circular 165. 27 pp., 31 figs., 1963.

An observation on Habit of Bonito, *Katsuwonus vagans* and Yellowfin, *Neothunnus macropterus*, School under the Drifting Timber on the Surface of Ocean, 1962. 3 pp., 1 fig., 4 tables, (Translation from Japanese by W.G. van Campen) "An observation on a School of Skipjack and Kimeji accompanying a drift log" by H. Yabe and T. Mori. Japanese Society Scientific Fisheries Bulletin, 16(2): 35-39, 1950.

Growth and Age of Albacore by Y. Yabuta and M. Yukinawa. Report, Nankai Regional Fisheries Research Laboratory, 17: 111-120, 1963. Translated from Japanese by T. Otsu and edited by W.C. van Campen, Bureau Commercial Fisheries Biological Laboratory, Honolulu, Hawaii, 15 pp., 9 figs., 2 tables, 1 diag., 1963.

REFERENCE MATERIAL:

On the Surface Zooplankton of the Indian Ocean by N.M. Voronina. Biological Investigations of the Sea (Plankton), Academy of Science of the USSR. Works of the Institute of Oceanology, 58: 67-79, by Academy of Sciences Moscow, 1962. Translation from Russian by W.G. van Campen, Bureau Commercial Fisheries Biological Laboratory, Honolulu, Hawaii, 20 pp., 6 figs., 1962.

On the Oceanographic Conditions in the South-western Region of the Okhotsk Sea (2) by M. Wakao and I. Kojima. Scientific Reports Hokkaido Fisheries Experimental Station I: 1-12, 1963. Translation from Japanese by W.G. van Campen, Bureau Commercial Fisheries Biological Laboratory, Honolulu, Hawaii, 14 pp., 3 figs., 2 tables, 1963.

Methods of Identification for the Young Stages of Tunas and Spearfishes. Nankai Regional Fisheries Research Laboratory, 1964. Translation from Japanese by W.G. van Campen, Bureau Commercial Fisheries Biological Laboratory, Honolulu, Hawaii, 16 pp. illustrations, 1964.

The use of blood group characteristics in studying subpopulations of fishes by J.C. Marr and L.M. Sprague. 21 pp., 2 tables. Manuscript circulated for information in connection with informal Pacific Tuna Biology Conference Honolulu, August, 1961. Paper No. III-4.

Commissioning of the R/V Townsend Cromwell, January 25, 1964. Biological Laboratory, Hawaii Area, Bureau of Commercial Fisheries, Honolulu, 5 pp., 2 photos, 1 fig.

A Utility Raft for Fishery Work by J. Rothschild. Reprint, Progressive Fish-Culturist, I: 218-219. 4 figs., 1963 (Oct.).

A possible Breakdown in Symbiosis between Fishes by W. Strasburg. Reprint, Copeia, I: 228-229. 1 table, 1964.

Pontellid Copepod Distribution in Relation to Surface Water Types in the Central North Pacific by K. Sherman. Reprint, Limnology and Oceanography, (2): 214-227, 16 figs., 1 table, 1963.

Studies of the Erythrocyte Antigens of the Skipjack Tuna (Katsuwonus pelamis) by L.M. Sprague and J.R. Holloway. Reprint, American Naturalist, 96(889): 233-238, 5 tables, 1962.

REFERENCE MATERIAL:

Pelagic States of *Zanclus cornutus* from Hawaii by D.W. Strasburg. Reprint, Copeia, 4: 844-845, 1 fig., 1962.

Employment of Submarines for Scientific Research by W. Strasburg. Reprint, Proceedings Hawaiian Academy of Science, 38th Ann. Meet. 1962-63, p. 13.

Model of the Migration of Albacore in the North Pacific Ocean by T. Otsu and R.N. Uchida. Bureau of Commercial Fisheries, Fishery Bulletin, 63: 33-44, 4 tables, 10 figs., 1963.

Studies of Drifting Sea Weeds: Larval and Juvenile fishes accompanying drifting seaweed. I. Investigations in the vicinity of Tsuyazaki in fiscal year 1957 by K. Uchida and Y. Shojima. Japanese Society of Scientific Fisheries Bulletin, 24(6 & 7): 411-415, 1958. Translated from Japanese by W.G. van Campen, Bureau Commercial Fisheries Biological Laboratory, Honolulu, Hawaii, 7 pp., 3 figs., 1 table, 1963.

Cruise of the American Atomic Submarine "Seadragon" in the Arctic Ocean by O.V. Kol'man. Okeanologia, 2(6): 1115-1117, 1962. Translation from Russian by W.B. van Campen, Bureau Commercial Fisheries Biological Laboratory, Honolulu, Hawaii, 4 pp., 2 figs., 1963.

Organization of Fisheries Administration in selected countries. Econs. Branch, Fish. Div., FAO, Rome, 1964, 152 pp.

Standards and requirements for Fish handling, processing distribution and quality control. FAO Fish. Rept., 9: 249 pp., 1963.

Japan's Fishery Industry. Japan Fisheries Association, 1964, 15 pp.

Report on the uniform registration of commercial fishing vessels for census purposes. (Rept. prepared by Statistics Sub-Committee of the Commonwealth - States Fishermen's Conference), 1963

Synopsis of biological data on the grey mullet, *Mugil cephalus* Linnaeus 1758, prepared by J.M. Thomson. CSIRO Div. Fish. and Oceano., Cronulla, Sydney, Australia, 1963. Fisheries Synopsis No. 1.

Science and the future of world fisheries. FAO Fish. Circ., 9, FAO Fish. Div. Biol. Branch, Rome, 1963, 4 pp.

REFERENCE MATERIAL:

Organization and management of research on Marine Fish Resources by G.R. Williams. FAO Fish. Tech. Pap., 43. FAO Fish. Div. Biol. Branch, Rome, 1964, 26 pp.

Report of a Survey for Tuna in Western Australian Waters by J. S. Hynd and D. Vaux. CSIRO, Div. Oceanography Fisheries and Oceanography Report, 37, Cronulla, Australia, 1963, 105 pp., 28 figs.

Australian catches of Humpback Whales, 1962, by R.G. Chittleborough. CSIRO, Division of Fisheries and Oceanography Report 35, Cronulla, Australia, 1963, 5 pp., 15 tables, 1 App.

Fishing in the future. A study of Techniques and processes. (With a critical review by S.J. Holt and G.L. Kesteven). Australian Fisheries Leaflet 11. Also Reprint, Fisheries Newsletter, 23(4):

Mortality Thresholds of Fish in fly ash suspension. Reprint, Aust. Journ. Sci., 25(9): 414, 1 fig. 1 table.

Experience Paper: "Licence limitation as applied to whaling" by R.G. Chittleborough. CSIRO, Div. Fish. Oceanogr. Reprint 534 from "Fisheries Management Seminar, 1963, Report of Proceedings". (Dept. Prim. Indust. Canberra), 12 pp.

Experience Paper: "Australian Salmon" by W.B. Malcolm. CSIRO Div. Fish. Oceanogr. Reprint 535 from "Fisheries Management Seminar, 1963 Report of Proceedings" (Dept. Prim. Indust. Canberra), 4 pp.

Main Paper: "Licence limitation as means of controlling fishing effort" by G.L. Kesteven and G.R. Williams. CSIRO Div. Fish. Oceanogr. Reprint 536 from "Fisheries Management Seminar, 1963, Report of Proceedings" (Dept. Prim. Indust. Canberra), 14 pp.

Experience Paper: "Measurement of the characteristics of fishing by trawlers" by G.L. Kesteven and A.E. Stark. CSIRO Div. Fish. Oceanogr. Reprint 537, from "Fisheries Management Seminar, 1963, Report of Proceedings" (Dept. Prim. Indust. Canberra), 15 pp.

Experience Paper: "On the control of F (Instantaneous fishing mortality) in the Tuna livebait and pole fishery by J.S. Hynd. CSIRO Div. Fish. Oceanogr. Reprint 538 from "Fisheries Management Seminar, 1963, Report of Proceedings" (Dept. Prim. Indust. Canberra), 6 pp.

REFERENCE MATERIAL:

Experience Paper: "On the number of tuna vessel or aircraft required to search a given area effectively by J.S. Hynd. CSIRO Div. Fish. Oceanogr. Reprint 539 from "Fisheries Management Seminar, 1963, Report of Proceedings" (Dept. Prim. Indust. Canberra), 8 pp.

Organization and functions of the Philippine Fisheries Commission by I.M. Francisco, Philippine Fisheries Commission (mimeo), 19 pp.

- (i) The Orientation of value by J. Sakedo.
- (ii) Social science research in the Mindano Area by F.C. Madigan.
- (iii) Biological Studies of Bangos by I.A. Ronquillo.
- (iv) The Role of animal science in the implementation of the 5 year socio-economic program of the President by A.B. Coronel.
- (v) The Role of Science in the discovery and exploitation of mineral resources by F.S. Busuego.

Science Review, 5(2); 1964.

Progress in 1961-62. U.S. Bureau of Commercial Fisheries Hawaii Area Biological Laboratory, Honolulu, Hawaii. Circ. 163, 35 pp., 33 figs.

IPFC PUBLICATIONS:

Proceedings of the 10th Session, October 10-25, Seoul, Korea, 1962.

IPFC Procs., 1963, 10(1): 355 pp.

IPFC Procs., 1963, 10(2): 330 pp.

IPFC PUBLICATIONS:

Basic Texts, Vol. 3. Pt.2 - Indo-Pacific Fisheries Council.

Agreement and Rules of Procedure. FAO, Rome, 1964.

Preliminary Bibliography on trawlers and trawling with particular reference to tropical waters.

IPFC Occ. Pap., 64/4.

PRESS RELEASES:

- IPFC/C64/P
- 1 Address by Mr. K. Gopinatha Pillai, Chairman Indo-Pacific Fisheries Council.
 - 2 Message from Dr. B.R. Sen, Director-General FAO, presented by Dr. A. Sedky, FAO Country Representative in Malaysia.
 - 3 Speech of Inche Mohd. Khir Johari, Minister of Agriculture & Co-operatives, Malaysia at the official opening of the 11th Session of the Indo-Pacific Fisheries Council on 17th October, 1964 at Dewan Tunku Abdul Rahman, Kuala Lumpur.
 - 4 Address by Mr. Roy I. Jackson, Director, Fisheries Division, Rome.
 - 5 Speech of The Assistant Minister of Agriculture & Co-operatives, Inche Sulaiman bin Bulon, at the Closing Ceremony of the 11th Session of the Indo-Pacific Fisheries Council on October 31st.

UNNUMBERED:

Tours to Malacca and Penang.

MALAYSIAN GOVERNMENT PUBLICATIONS:

Malaysia - Another Year of Progress. New York Times, August 30th, 1964 - Section II.

Malaya (Map). Shell.

Kuala Lumpur - Convention City of South East Asia.

MALAYSIAN GOVERNMENT PUBLICATIONS:

Pacific Travel News, January 1964.
 Penang - Holiday Island of the Far East.
 Historic Malacca.
 Cameron Highlands - Holiday playground of Malaysia.
 Kuala Lumpur.
 Malaysia - Fraser's Hill.
 Festival Malaysia, 1964.
 Penang for the visitor.
 Malaysia in Brief.
 11th Session, IPFC, Kuala Lumpur, Malaysia - Handbook for Delegates.

FILMS:

Golden Queen
 Hassan, Home Coming
 The Rising Tide
 Food Pioneer
 Kemajuan Negara Malaysia No. 1
 New Malayan Gazette No. 69
 Before the Wind
 Profit from Ponds
 Food for Thought
 Local Fish Supply
 Retailing Fish

MINUTES:

IPFC/C64/M	1	IPFC 11th Session - Minutes of the Opening Ceremony.
	2	Minutes of the 1st Plenary Meeting; 17th October, 1964.
	3	Minutes of the 1st Meeting of Technical Committee II, 19th October, 1964.
	4	Minutes of the 2nd Plenary Meeting, 19th October, 1964.
	5	Minutes of special Meeting of Heads of Delegations, 19th October, 1964.

- IPFC/C64/M
- 6 Minutes of 1st Meeting of Technical Committee I, 19th October, 1964.
 - 7 Minutes of 3rd Plenary Meeting, 19th October, 1964.
 - 8 Minutes of the Meeting of Committee of the Whole, 19th October, 1964.
 - 9 Minutes of the 4th Plenary Meeting, 20th October, 1964.
 - 10 Minutes of 2nd Meeting of Technical Committee I, 20th October, 1964.
 - 11 Minutes of 2nd and 3rd Meeting of Technical Committee II.
 - 12 Minutes of the 5th Plenary Meeting, 21st October, 1964.
 - 13 Minutes of the 3rd Meeting of Technical Committee I, 21st October, 1964.
 - 14 Minutes of the 3rd and 4th Meeting of Technical Committee II, 21st October, 1964.
 - 15 Minutes of 2nd Meeting of Committee of the Whole, October 22, 1964.
 - 16 Minutes of the 6th Plenary Meeting, 22nd October, 1964.
 - 17 Minutes of 4th Meeting of Technical Committee I, 22nd October, 1964.
 - 18 Minutes of the 6th and 7th Meetings of Technical Committee II, October 22nd, 1964.
 - 19 Combined Minutes of Working Groups No. I & II on Fisheries Census.
 - 20 Minutes of the 7th Plenary Meeting, 22nd October, 1964.
 - 21 Minutes of the 5th Meeting of Technical Committee I, 23rd October, 1964.
 - 22 Minutes of the Technical Committee II, 23rd October, 1964.
 - 23 Minutes of 6th Meeting Technical Committee I, 26th October, 1964.

- IPFC/C64/M
- 24 Minutes of the Meeting of the Working Party on Inland Fisheries.
 - 25 Minutes of the 10th and 11th Meetings of the Technical Committee II, 26th October, 1964.
 - 26 Minutes of the 8th Plenary Session, 27th October, 1964.
 - 27 Minutes of the 7th Meeting of Technical Committee I, 28th October, 1964.
 - 28 Minutes of the 9th Plenary Meeting, 28th October, 1964.
 - 29 Minutes of the 10th Plenary Meeting, 30th October, 1964.
 - 30 Minutes of the 11th Plenary Meeting, 31st October, 1964.