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TWENTIETH REGIONAL TECHNICAL MEETING ON FISHERIES
(Noumea, New Caledonia, 1 - 5 August 1988)

REPORT

Noumea, New Caledonia
September 1988

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I. OPENING ADDRESS

1. The Acting Secretary-General, Mr Jon Jonassen, formally opened the meeting on behalf of the Secretary-General, Mr Palauni M. Tuiasosopo, welcoming the delegates and the many observers from outside agencies.

II. ADMINISTRATIVE ARRANGEMENTS

2. The Fisheries Co-ordinator gave a brief outline of administrative procedures for the meeting.

III. APPOINTMENT OF CHAIRMAN AND OTHER OFFICE HOLDERS

3. Following the procedure of rotating chairmanship alphabetically by country, Dr Meryl Williams of Australia was appointed Chairman and Mr Julian Dashwood of the Cook Islands was appointed Vice-Chairman and Chairman of the Drafting Committee. The Vice-Chairman chose to prepare the draft report of the Meeting in conjunction with members of the Secretariat and rapporteurs.

IV. APPROVAL OF AGENDA AND TIMETABLE

4. The revised Agenda was approved as amended.

AGENDA

1. Opening address
2. Administrative arrangements
3. Appointment of Chairman and other office bearers
4. Approval of Agenda and timetable
5. Restructuring of SPC Fisheries Programmes
6. Report on work programme activities
 - (i) general review
 - (ii) reports on individual projects
 - Regional Fisheries Training Project
 - Fish Handling and Processing Project
 - Deep Sea Fisheries Development Project

- Inshore Fisheries Research Project
 - Tuna and Billfish Assessment Programme
 - Fishery Statistics Project
 - Tuna and Billfish Research Project
7. Consideration of the report of the First Meeting of the Standing Committee on Tuna and Billfish
 8. SPC/FFA Computer Training Programme
 9. South Pacific Regional Tuna Fishing Project - a proposal for a regional trial purse-seine programme
 10. Workshop: Fish Poisoning and Seafood Toxicity
 11. Report on Workshop on Pacific Inshore Fishery Resources
 12. Proposal for a Regional Post Harvest Fisheries Laboratory
 13. Proposal for Joint SPC/SPRADP Regional Research Project on Reef Resource Enhancement and Culture
 14. Report on diesel outboard project in Western Samoa
 15. Reports by other organisations
 16. Other business
 17. Adoption of the report

V. RESTRUCTURING OF SPC FISHERIES PROGRAMME

5. The Fisheries Co-ordinator informed the meeting of the action taken by the Secretariat to restructure the SPC Fisheries Programmes in line with the recommendations from the 19th Regional Technical Meeting on Fisheries (RTMF), endorsed by the Ninth Meeting of the Committee of Representatives of Governments and Administrations (CRGA) and adopted by the 1987 South Pacific Conference. He stressed that careful attention had been given to the development of a staff structure that could respond quickly to member country concerns and requests for assistance (WP.1).

Recommendation No. 1

After considering Secretariat action taken to restructure the SPC Fisheries Programmes in response to direction from the 19th Regional Technical Meeting on Fisheries and the 27th South Pacific Conference, the meeting noted with approval the changes implemented in the programme structure and *recommended* approval of the new position of Secretary to Fisheries Co-ordinator.

6. Following questions received from the representative of Solomon Islands, the Fisheries Co-ordinator indicated that there was no connection or overlap of duties between the posts of Fisheries Development Officer in SPC and the Forum Fisheries Agency (FFA) and that steps were being taken to ensure close cooperation between the Inshore Fisheries Research Project (IFRP) and the FFA programmes.

7. The representative of Western Samoa stressed his country's desire for the restructuring to stress more field positions and fewer office-bound administrative positions. The Fisheries Co-ordinator fully concurred with this view and commented that the new restructuring of the SPC Fisheries Programmes was geared directly towards increasing field operations and increasing the ability of the programme to react quickly to country requests for specific projects.

VI. REPORT ON WORK PROGRAMME ACTIVITIES

(i) General review

8. In a general review of the Fisheries Programme, the Fisheries Co-ordinator informed the meeting of recommendations made by the last RTMF.

(ii) Reports on individual projects

Regional Fisheries Training Project

9. The Fisheries Training Project was presented by the SPC Fisheries Training Officer (WP.2). The training programmes were reviewed with specific reference to defined objectives of the programme.

10. The representative of New Caledonia requested that when the Assistant Fisheries Training Officer was being recruited, favourable consideration be given to a French-speaking applicant. The Fisheries Training Officer pointed out that this would be considered and indicated the Programme would have no problem in running a course for French-speaking countries if the need and request were put forth.

11. An outline of the courses conducted last year followed:

- *SPC/Nelson Polytechnic Pacific Island Fisheries Officers Course*

12. Nine courses have been run since 1979, with 108 participants attending. The 1988 18-week course in Nelson, New Zealand, was followed by a 5-week practical exercise held in Palau in June and July. Special thanks were extended from SPC to the Palau Division of Marine Resources for their efficient technical and administrative support as well as generous hospitality during the practical module.

13. The representatives of Kiribati, Solomon Islands and Fiji thanked SPC for the training that had been provided and hoped that it would continue. The representative of Western Samoa offered to host the next practical fishing module. The representative of Papua New Guinea commented that the Nelson Course complemented training that was conducted in his country. The representative of Palau expressed his appreciation at having the course conducted in his country.

14. The meeting thanked the Government of New Zealand, FAO/UNDP, the Commonwealth Foundation and the Commonwealth Secretariat for sponsoring this course.

- *FAD Workshop*

15. It was emphasised that the course was designed to give technical training on all aspects of FAD construction and deployment. The recommendations of the course participants in looking to future FAD courses were to:

- examine the fishing aspects of FADs;
- investigate cheap buoy constructions;
- simplify mathematics involved in the design of the mooring gear by the use of tables or graphs to avoid calculations.

16. Special thanks was extended by the Secretariat to the Fisheries Division of Kiribati for support and assistance during the course.

17. The meeting thanked the Government of New Zealand and the FAO/UNDP Regional Fisheries Support Programme for sponsoring this workshop.

18. Following comments from the representatives of Cook Islands and other countries, the meeting made the following recommendation:

Recommendation No. 2

Endorsing a recommendation from the 1988 SPC FAD Workshop, the meeting recommended that the Secretariat provide member countries with graphs and/or tables to assist with the calculation of catenary curves for mooring systems for FADs.

19. The representative of Kiribati thanked the SPC for holding the FAD course, which was found to be both timely and effective, in his country. The representative of American Samoa noted the information available on his territory's work on FAD systems and offered to make this available to SPC and other countries on request.

20. The representative of Tuvalu suggested that the benefits of the training programmes to the countries need to be evaluated, with particular attention to follow-up activities.

21. The representative of Kiribati requested that the SPC co-ordinate the collection and dissemination of information generated on FAD programmes in other areas, citing in particular the work done in Hawaii.

22. Based on recent work seen from the Caribbean, the representative of New Zealand noted that the level of the SPC FAD work was of a very high standard and suggested that the production of a video would be a good way to disseminate information to island situations.

- *Regional Refrigeration Course*

23. A brief account of the Refrigeration Course held in Kavieng, Papua New Guinea, from 3 August to 4 December 1987 was presented. The 18-week course was the third of its kind and was widely accepted as a valuable experience for many fisheries officers in the region.

24. The meeting thanked the Government of New Zealand, BDDP, CFTC, FAO/UNDP and AIDAB/SPC for sponsoring this course.

- *Comprehensive Training Programme in Extension Skills*

25. The emphasis of this training programme is to 'train the trainers' so that they can go back to their countries and apply their skills. Mr Richard Fell, Senior Extension Officer, Overseas Development Section, Queensland Department of Primary Industries (QDPI), presented his experiences in conducting the Stage 1 extension course in Fiji from 11 April to 6 May 1988, which was the first stage of a two-stage activity. Stage 2 courses are in-country applications of the Stage 1 course lessons, run by the Stage 1 course participants with one QDPI tutor for support.

26. Two products of these activities were an extension training course manual and a set of course notes for teaching second stage courses. In response to a question from the representative of Tonga, the Secretariat informed the meeting that the manuals would be available to countries that were not able to attend the course.

27. The meeting expressed support for Stage 2 courses and requested that SPC consider holding a Stage 2 course in Kiribati and in those countries not presently conducting these courses.

28. The Programme Director of the FAO/UNDP Regional Fisheries Support Programme stated that in witnessing the Stage 2 Fiji course, he was impressed by how well the Stage 1 students conducted this course with much less tutorial support.

29. The Fisheries Training Officer, referring to Working Paper 12, outlined steps which might improve fisheries training in the region.

30. It was noted that, apart from the Stage 2 Fiji course which had been funded by FAO/Regional Fisheries Support Programme, the entire programme of extension skills training, comprising the initial four weeks core course and all of the remaining Stage 2 in-country courses, had been funded by the International Centre for Ocean Development (ICOD).

31. The Secretariat expressed its appreciation for this very substantive support and the timely manner of its execution.

Fish Handling and Processing Project

32. The SPC Fish Handling and Processing Officer (FHPO) presented the activities of his project (WP. 2). In response to specific requests, country visits were undertaken to Cook Islands, Palau, Kiribati, Guam, and Tuvalu. During all visits the need for training was considered important for improving fish handling methods.

33. The representative of the United States of America noted that the University of Rhode Island had produced a 12-minute video on post-harvesting for USAID and a copy would be sent to SPC.

34. The representative of Tonga questioned the ability of the Fish Handling Project, with only one officer, to respond effectively to the large subject area. The Secretariat indicated that much of the work of the Project involved identifying outside experts for executing specific projects.

35. The representative of Tuvalu registered an interest in applying processing methods to marketing situations, perhaps through attachments in areas where exporting is successful.

Deep Sea Fisheries Development Project

36. Following the Senior Inshore Fisheries Scientist's brief account of this Project (WP.2), giving the background and activities of the Master Fishermen Projects and the Gear Development Project, Master Fisherman Mr Paul Mead presented in detail the progress of the SPC Gear Development Project (WP.33).

37. The representative of Tonga thanked the SPC for this project and registered the desire to have the results of this project published promptly so that other countries may benefit from this work.

38. Master Fisherman Mr Lindsay Chapman presented the results of his activities in Palau and in Truk State, Federated States of Micronesia (WP.2).

39. The representative of Palau expressed his government's appreciation to the SPC for the work carried out by Mr Chapman.

40. Master Fisherman Mr Paxton Wellington presented the results of his activities in Papua New Guinea (WP.2).

41. The representative of Papua New Guinea expressed his government's thanks for this activity in his country.

42. The SPC Technical Writing Consultant, Mr Peter Cusack, presented the work of Mr Archie Moana (who ended his employment with the SPC in June 1988) in Kosrae State, Federated States of Micronesia and in American Samoa.

43. The representatives of American Samoa and the Federated States of Micronesia expressed their governments' thanks to the SPC for the work carried out by Mr Moana.

44. In response to questions from the representative of Western Samoa, the Secretariat noted that a technical writing consultant had been hired to clear the backlog of Master Fishermen country reports and announced the release of the Trolling Handbook (SPC Handbook No. 28). The assignment length largely depended on the objectives of the individual requests of countries and had therefore been left flexible. Funding limited the number of Master Fishermen the SPC can have operating in the region and the SPC was currently approaching USAID for additional funds for this project.

Inshore Fisheries Research Project

45. The Inshore Fisheries Research Project (IFRP) was outlined, as contained in Working Paper 2, by the Senior Inshore Fisheries Scientist, Mr Garry Preston.

46. The first major activity undertaken by the Project was to conduct the Workshop on Pacific Inshore Fishery Resources (refer to Section XI).

Tuna and Billfish Assessment Programme (TBAP)

- Fisheries Statistics Project

47. The Fisheries Statistician presented Working Papers 2 and 10 in reference to the Fisheries Statistics Project.

48. The representative of Solomon Islands reported that his country had recently expanded its observer programme and hoped to reduce temporal gaps in length frequency data for its fishing zone in future. He expressed appreciation for SPC efforts in analysing their length frequency data.

49. The issue of data confidentiality was raised and the meeting requested that, although the confidentiality of data had always been maintained, a formal statement of SPC policy be drafted for consideration by the meeting.

SPC POLICY ON CONFIDENTIALITY OF DATA SUBMITTED BY MEMBER COUNTRIES TO THE TBAP

The dissemination or publication of summaries of data relating to individual countries is regulated in strict accordance with the confidentiality requirements of the country or agency supplying the data. Only the country or agency supplying the data, or other countries or agencies so designated in writing by the country or agency supplying the data, will receive summaries.

The dissemination or publication of summaries of catch and effort data relating to the region as a whole will only be disseminated in a form aggregated by time period and by geographic area wherein the minimum level of aggregation will be (i) by month and (ii) by one-degree square of latitude and longitude. When this level of aggregation is not sufficient to meet the confidentiality requirements of a country or agency, the confidentiality requirements of the country or agency will have priority.

50. After reviewing the statement on SPC confidentiality procedures, the meeting endorsed the policy.

51. The representative of Palau expressed an interest, on behalf of the Palau Maritime Authority, to have the Fisheries Statistician visit his country to examine the development of an in-country tuna database system.

52. Several countries expressed their governments' appreciation of the statistical services being provided by the TBAP and reiterated their desire to build up in-country capability in this area.

- *Tuna/Environment Studies*

53. Mr Renaud Pianet, ORSTOM, reported on the collaborative ORSTOM/SPC Tuna Environment Study, which relates oceanographic conditions to tuna distribution (IP.6 and WP.2 (pg. 20)).

54. In response to a question from the representative of Tonga, Mr Pianet noted that the predictive value of this study is limited to a very general level.

- *Tuna and Billfish Research Project (TBRP)*

55. The Acting Chief Scientist of the TBAP presented the report on the work programme of the TBAP (WPs. 2, 4, 5, 6, 13, 15, and 17; IPs. 1 and 5).

56. TBAP Fisheries Research Scientist, James Ianelli, presented a study done in Kiribati on the feasibility of using artisanal fishing vessels for small-scale tagging studies (WP.6).

57. The meeting agreed that, based on comments from the representatives of New Zealand and the Federated States of Micronesia, an action plan be drafted of the Regional Tagging Project and that it be distributed to countries.

58. The representative of New Zealand complimented the TBAP on the value of the artisanal tagging project in Kiribati in addressing the problems of industrial and artisanal fisheries interactions.

59. In response to a question by the representative of Western Samoa on the importance of the Regional Tagging Project, the Meeting expressed strong support for the Project, particularly in view of important biological questions pertaining to artisanal and domestic commercial fisheries development plans, and the level of exploitation which could be permitted.

60. The representative of Tuvalu noted that tagging would be concentrated and therefore most of the countries would not have tagging performed in their EEZ's and re-queried the application of the results of this study to these countries. The Secretariat replied that the TBAP addresses the needs of all its members, but that this Project was designed to cover the most critical tuna resource questions. Although the programme will obviously be of more benefit to those countries in which the Project operates, there will be benefits to the region as a whole because of increased resource knowledge.

61. In conclusion the meeting made the following recommendations:

Recommendation No. 3

The meeting *recommended* that the SPC Secretariat provide a work programme for the Regional Tagging Project. The work programme should identify:

- 1) objectives for country-specific projects;
- 2) research procedures to be used to address the country objectives.

The work programme should be circulated to member countries for comments and technical evaluation by the SCTB.

Recommendation No. 4

The meeting further *recommended* that the activities of the Regional Tagging Project and of the proposed small-scale purse seine programme be co-ordinated when appropriate.

VII. CONSIDERATION OF THE REPORT OF THE FIRST MEETING OF THE STANDING COMMITTEE ON TUNA AND BILLFISH (SCTB)

62. The Chairman presented the report of the SCTB, stressing that the fundamental problem addressed by the SCTB concerned gaps in the coverage of tuna fishing activities in the region by data currently held at SPC. More complete data are urgently needed for the proper conduct of the work of the Tuna and Billfish Research Project.

63. After considering the report of the first SCTB, the meeting endorsed and adopted the following resolutions of the SCTB.

Recommendation No. 5

Recognising the desire for close cooperation and collaboration between DWFNs and SPC member countries, the meeting *recommended* that scientists or other representatives from DWFNs be encouraged to attend future meetings of the Committee.

Recommendation No. 6

The meeting *recommended* that, considering the importance of fishery interaction issues in the SPC area and other regions, the FAO be requested to reactivate and fund their Expert Consultation on the topic of tuna and billfish fishery interactions.

Recommendation No. 7

The meeting *recommended* that succeeding meetings of the SCTB:

- (a) be held separately from the annual SPC RTMF to enable time for preparation between the two meetings;**
- (b) be held over three days to permit sufficient time for more detailed presentation and discussion of scientific results and preparation of the final meeting report;**
- (c) accept the procedure that the Chairman of SCTB meetings be provided by the country supplying the Chairman to the annual RTMF.**

64. The RTMF endorsed the suggestion from the representatives of New Zealand and Palau that the Secretariat acknowledge the spirit of co-operation shown by Japan, the Republic of China and the United States in attending the SCTB. It was proposed that the Chairman of the RTMF contact those DWFNs that did not attend the SCTB to encourage them to co-operate with the TBAP.

Recommendation No. 8

Recognising the key role that member countries can play in encouraging and promoting greater DWFN involvement in the work of the SCTB, the meeting *recommended* that the SPC write to each member country in the region and request that co-operation and assistance from DWFNs in the forthcoming Regional Tuna Tagging Project be stressed during the course of access negotiations, and that national observers placed on foreign fishing vessels undertake to publicise the Regional Tuna Tagging Project whenever possible.

65. In response to a request for clarification on Recommendation 7(a) above made by the SCTB, the Secretariat stated that separation of the SCTB and RTMF would allow it to give adequate consideration of SCTB recommendations for presentation to the RTMF and would significantly improve the organisation of the meetings by the Secretariat. It was noted that the participants attending the two meetings, and their goals and objectives, were largely different, and that separation of the two meetings should therefore not pose particular difficulties. The advantages of changing the venue of the meeting of the SCTB, such as exposing the participants to conditions in different host countries, were also noted.

66. The Secretariat suggested that the timing of meetings of the SCTB would ultimately be dictated by necessity, but that during at least the first few years the meetings should be held on an annual basis, to which the RTMF agreed.

67. The meeting endorsed the procedure of formulating an 'Action Sheet' at each SCTB meeting to ensure that at subsequent SCTB meetings progress on activities to be undertaken by members of the SCTB could be reviewed. The Chairman presented the Draft Action Sheet compiled by the first meeting of the SCTB to the RTMF and the meeting strongly endorsed implementation of each of the items on the Draft Action Sheet.

68. With regard to Item No. 4 on the SCTB Draft Action Sheet, the Fisheries Co-ordinator informed the RTMF that the representative to the SCTB from the Far Seas Fisheries Research Laboratory in Japan had indicated that funding would be made available by JICA for a Japanese scientist to work on a collaborative research project at SPC for six months in 1989. The meeting noted its appreciation and support for this initiative.

VIII. SPC/FFA COMPUTER TRAINING PROGRAMME

69. The Secretariat presented Working Paper 8 and outlined the joint FFA/SPC Computer Training Course, to be conducted in two parts; the first three weeks will be geared for first-time computer users and the second three weeks will be designed for intermediate to advanced computer users. The representatives of Solomon Islands and Tonga expressed their support for the course. A discussion session outside of plenary with the Director of Computer Studies from the University of the South Pacific, Mr Gerrit Bahlman, was announced.

70. The SPC Fisheries Training Officer reported on the evening session on computer training which was held to produce a course structure and syllabus. This meeting decided that the first three weeks of the course would be for people with no previous experience with computers. The discussions mainly concentrated on the second three-week section of the course. It was felt that this should be conducted at an intermediate level, but apart from the computer course there still remained an immediate need in some countries for assistance in developing their fisheries data bases. This would be better addressed by running a computer systems workshop.

71. The representative of Tonga supported the concept of the workshop but felt that the workshop should be run after the two courses so that participants could be sent to each of the courses and to the workshop in sequence.

72. The representative of American Samoa supported the concept of the workshop but stressed that the workshop should not be run at the same time as the computer courses due to staffing constraints within fisheries offices.

Recommendation No. 9

Recognising that some countries have an urgent need for assistance in further developing their fisheries databases, the meeting recommended that arrangements to run a computer systems workshop proceed as soon as possible.

**IX. SOUTH PACIFIC REGIONAL TUNA FISHING PROJECT -
A PROPOSAL FOR A REGIONAL TRIAL PURSE SEINING PROGRAMME**

73. The project proposal was formulated with the needs of the smaller island countries in mind and was developed in consultation with member countries and the technical assistance of COFREPECHE. The proposal for a four-stage project coordinated through SPC (detailed on page 5 of CRGA 9/WP.32 -- Working Paper 36 to this meeting) was approved in principle by CRGA 9 subject to the technical scrutiny of the 20th RTMF. The CRGA empowered the Secretariat to proceed with the phase 1 preparatory study mission, drawing on funds generously provided by the French Government, which had also agreed to fund phase 2 if the project was approved by the Meeting and Conference. Phase 2 would prepare a full project document which would accompany a formal approach to EEC for funding phase 3 of the project, i.e. project implementation. As CRGA was limited to one meeting only in 1988, CRGA 9 further agreed that the comments and recommendations of RTMF could be passed directly to the South Pacific Conference in October to assist their deliberations on this project proposal.

74. On behalf of the team of three consultants commissioned to undertake the Study Mission on the trial purse seine fishing project, Mr Richard Farman introduced the paper (WP.28) outlining the general operation of the mission and its terms of reference as follows:

Terms of Reference

- a) Consult with the states and territories that would be concerned by the project to ensure that their development needs are adequately addressed;
- b) Review and present the status of current biological and technical knowledge relevant to the project;
- c) Prepare a comprehensive report of the study, reviewing the various alternatives and proposing an outline for the implementation of the project, for technical review at the 20th RTMF.

75. Following this introduction, Section III of Working Paper 28, covering country input, was addressed in detail by Mr Elisala Pita, who concluded by indicating the high level of support voiced by officials of those countries visited, although more discussion would be necessary to ensure the particular interests of each country were addressed.

76. Mr David Itano then covered all technical aspects of the project as outlined in Section IV of the paper.

77. Mr Richard Farman concluded the presentation of the report by addressing the ecological and biological aspects associated with the project operation as contained in Sections V and VI of the report.

78. The meeting was then asked to address the paper with the purpose of making recommendations on whether the project should go ahead and also providing advice to the Secretariat and Conference on how it should proceed; the following points were raised and discussed.

79. The representative of Western Samoa pointed out that this was not a new issue and paralleled initiatives already taken by Western Samoa. He indicated his country's support that the programme proceed.

80. There was general concern expressed that the topic was taken to CRGA before being put before the RTMF. Satisfaction was expressed with this procedure following the Secretariat's explanation that this resulted from limitations imposed by having a single CRGA meeting in 1988.

81. The representatives of Kiribati and Tokelau expressed concern that their countries were not included in the proposed area of operation.

82. A specific issue was raised by the representative of American Samoa concerning the coverage of the project as well as the source of funding. He also sought a specific commitment from the Secretariat that this concern be addressed.

83. The Deputy Director of Programmes, Mme Courte, explained that the targeted source of funding was EEC and because of this the project applied primarily to certain territories and ACP countries only. An assurance was given by the Secretariat that if the project was approved by Conference and proceeded successfully beyond the feasibility study, steps would be taken to identify funds to extend the Project to American Samoa and other countries.

84. The representative of Fiji asked for clarification on sources of funding for this project and sought assurances that this would not affect the EEC funding of other regional projects.

85. The Fisheries Co-ordinator replied that Phases 1 and 2 were being funded by the Government of France and if the meeting and Conference approved the project, Phase 2 would proceed. At all times the close co-operation of EEC would be necessary. He also stated that the Phase 3 funds would come from EEC global funds that would be new to the area and as such, would not affect other funding commitments of EEC in the region.

86. The representative of New Zealand asked that the experience of New Zealand and Solomon Islands in running similar projects should be taken into account in developing the project. He also believed that with proper management, a research component could be included in the project.

87. The representative of Tuvalu pointed out that it was not always possible to satisfy all country needs, but there would be time during Phase 2 to give all countries the opportunity to express their concerns on all aspects of the project.

88. After all country representatives had individually expressed support for the implementation of Phase 2, the meeting commended the consultants and the Secretariat for the excellence of the report and presentation, and made the following recommendation:

Recommendation No. 10

Having received the project proposal as approved in principle by CRGA 9, and after careful consideration of the detailed report prepared by the Phase 1 Study Team, the meeting unanimously endorsed CRGA approval of this project as proposed, and *recommended* early implementation of the Phase 2 activity.

89. A discussion of the research role of the project ensued. The meeting noted the need for coincident research to obtain information for stock assessment; however it was felt that the economic evaluation of the fishing should not be compromised. Co-ordination with FFA and other organisations should be included as part of Phases 2 and 3 to ensure subsequent economic evaluation of development potential.

90. The representative of the Federated States of Micronesia requested that the senior vessel crew be experienced in the commercial operations of purse seine vessels in the South Pacific region. The Secretariat responded that this would be done.

91. The representative of Tuvalu suggested that Phase 2 should include visits to the regional canneries and work closely with commercial operations in the region.

92. The representative of Kiribati asked if there would be a training component to the fishing. The Secretariat responded that there would be training aspects; however, the main objective of the project should not be compromised.

93. The representative of Kiribati asked if the cannery at PAFCO had plans to handle increased production. The Secretariat reported that PAFCO will be starting a new canning line. They currently import nearly two-thirds of their product and have stated that they will not have trouble handling more fish.

94. The representative of Fiji stressed the importance of a good refrigeration system for the boat, as the marketing of PAFCO demands a high quality product.

95. The representative of the Federated States of Micronesia cited other past pilot projects like this in the region and suggested that agencies such as LMR and JAMARC be consulted during Phase 2.

96. The representative of New Zealand suggested that the Phase 2 programme make a prioritised list of objectives, monitor current local purse seine operations in the region as well as re-evaluate past experiences and re-visit parties participating in Phase 3 to ensure that country-specific information needs are addressed.

97. The representative of American Samoa expressed concern that other vessel support sites outside of Fiji had not been given enough consideration during Phase 1.

98. The representative of Tonga suggested that Phase 2 take into account the canneries and support facilities available in American Samoa to ensure that regional alternatives are adequately investigated.

99. The representative of New Zealand suggested that the Phase 2 report to the next RTMF include a cost analysis of the different vessel possibilities.

100. In summary, following considerations of the Phase 1 report and detailed discussion at the meeting, the following issues and concerns were noted for consideration during Phase 2:

- resource assessment to be included;
- the use of experienced crew from the western Pacific to be considered;
- training of nationals, to the extent possible, to be incorporated;
- plan for having appropriate freezing capabilities on the project vessel;
- fully investigate options for support facilities;
- consult with other similar operations, past and present;
- reassess in-country needs as a follow-up from phase 1;
- prepare detailed cost-benefit analysis pertaining to vessel selection.

Phase 3 will proceed at the completion of Phase 2 subject to funding.

101. The representative of the United Kingdom requested that the Phase 2 report be distributed well in advance of this meeting for consideration.

102. The representative of Western Samoa suggested that the Phase 2 investigation should seriously examine the feasibility of using part of the project money to purchase a suitable purse seine vessel for operation in Pacific island countries.

X. WORKSHOP: FISH POISONING AND SEAFOOD TOXICITY

103. The workshop was opened by SPC Fish Handling and Processing Officer, Mr Steve Roberts, who described the background to its development. Mr Roberts referred to the recommendation from the 19th RTMF which encouraged organisations to portray the ciguatera problem in a more objective and realistic manner. The aim of the workshop would be to address this issue.

104. The first speaker, Mr Mike Gawel of the Federated States of Micronesia, then made a presentation which outlined the causes and characteristics of ciguatera.

105. Mr Gawel outlined the extent of the ciguatera problem and the work that has been carried out in the Micronesian area. In two of the outer islands of Pohnpei State (Mokil and Pingelap) where recent outbreaks had been recorded, samples of fish were collected from suspect areas and sent to the University of the South Pacific for mouse bioassay analysis. Seaweed and *G. toxicus* samples were also collected in an attempt to quantify levels of the toxic dinoflagellate which is implicated in causing ciguatera. Almost all the reef fish sampled showed high levels of toxin in the viscera. However, certain groups of fish, such as the Holocentridae, did not appear from the mouse bioassay to be toxic.

106. Additional testing of fish samples was also carried out by the Institut de recherches médicales Louis Malardé in Tahiti using the mosquito bioassay, Tohoku University with mouse bioassay, and the University of Hawaii with the poke-stick test. Bioassay and poke-stick tests also identified palytoxin occurring in a species of triggerfish.

107. Mr Gawel then outlined the rationale which led the Federated States of Micronesia to use the poke-stick test. He noted the difficulty of obtaining accurate reporting of ciguatoxicity, and of sending fish samples overseas for testing. The poke-stick test is simple and cheap and although it may sometimes give false positives, it will always detect toxin.

108. Mr Asher Edward, of the Community College of Micronesia (CCM), then made a presentation describing the performance of the poke-stick test, which was described in a handout circulated to participants. Mr Edwards has been trained in the performance of the test by staff at the University of Hawaii, and has subsequently carried out a training programme at CCM in which a further 19 Micronesian technicians have been trained to carry out the test. A demonstration of the test had been arranged for later in the day.

109. Some questions followed the two presentations from the Federated States of Micronesia. The importance of sampling the flesh of the fish, rather than the viscera, was noted. The linking of ciguatera outbreaks to construction work or other activities or events that may cause reef damage was discussed, and it was noted that there is strong evidence that reef damage and ciguatera outbreaks are linked.

110. Dr Steve Terrell-Perica, SPC Health Services Epidemiologist, then gave an overview of the epidemiology of ciguatera in the region, and noted it as a very important health problem, as well as one that involves fishery economics and development. Dr Terrell-Perica's presentation was based on Information Paper 16. He particularly emphasised the importance of monitoring the extent of fish poisoning, and surveillance to identify outbreaks and transient poisoning incidents.

111. A presentation by Dr Noel Gillespie of the Queensland Department of Primary Industries, based on Information Paper 14, outlined the importance of the ciguatera problem in Queensland. Questions concerning the legal liability of retailers who sell fish that prove to be ciguatoxic are making it increasingly urgent to find means of improving public safeguards against fish poisoning. The Queensland research programme into ciguatera involves attempts to improve the means of detecting the presence of toxins at low concentrations, and the correlation of dinoflagellate abundance with the incidence and levels of toxicity in reef fishes from the same area.

112. Dr Raymond Bagnis, of the Institut de recherches médicales Louis Malardé in Tahiti, then made a presentation based on Working Paper 14. Dr Bagnis described the social and economic importance of ciguatera poisoning in French Polynesia and in doing so outlined some of the problems in undertaking research into the problem, and the fact that the production and isolation of ciguatoxin using cultured algae such as *G. toxicus* under controlled conditions had still not been achieved. Dr Bagnis noted several examples in which the relationships between ciguatera outbreaks and their causal factors, whether natural or man-made, appeared reasonably well established.

113. Dr Bagnis also used slides to illustrate the mosquito bioassay test used by his organisation to assess the toxicity of fish samples. It was not possible to include the test in the afternoon demonstrations, as originally hoped, because of the complexity of the test and the unavailability of the laboratory equipment required to perform it.

114. Participants then visited the ORSTOM laboratories where they were given demonstrations of the poke-stick test, shown *G. toxicus* and a video on ciguatera research in Australia.

115. A discussion session on ciguatera was held. The impact of reef destruction on the outbreak of ciguatoxic fish was discussed in terms of how fisheries officers of the region can use this information to either prevent destructive practices or predict ciguatoxin outbreaks.

116. The representative of Palau cited several incidences of reef destruction since World War II up to the illegal dynamite fishing practised today and pointed out the difficulties he faced by promoting fisheries development on the one hand and then having to issue warnings that the fish produced might be poisonous on the other.

117. The representative of Solomon Islands informed the meeting of incidences of fish poisoning in his country and asked what symptoms distinguish ciguatoxic poisoning from other types of fish poisoning. Dr Bagnis noted the symptoms of scombroid poisoning compared with ciguatera poisoning.

118. The representative of Fiji asked if any information was available detailing symptoms of fish poisoning for distribution to fisheries offices in the region. Dr Bagnis pointed out that he had been preparing a document through the SPC, first in 1973 and then recently updated four years ago. The Secretariat explained that this document remains in draft form at this stage.

119. The representative of the Marshall Islands noted the gravity of the ciguatera problem in his country and welcomed the development of the poke-stick test for their use. He questioned how the poke-stick test could have a false negative response. Dr Gillespie responded that a highly toxic fish was documented as having a non-toxic result from the poke-stick test and that this may be due to a different toxin found in Australia. He emphasised that the probability of error in the poke-stick test is very low but care needs to be taken at this stage of its development to compare the units with animal bioassay procedures.

120. The representative of Tonga asked the metropolitan countries represented at the meeting, as potential importers of fish from the region, to provide some information about their requirements for import of fish from South Pacific countries where ciguatera may be a problem.

121. The representative of Tokelau noted that the incidence of ciguatera poisoning in Tokelau had increased in recent years and asked the Secretariat for assistance in conducting a survey in his country.

122. In response to a question from the representative of France, Dr Bagnis noted the difficulties and high costs of obtaining ciguatoxin in sufficient quantities to find an antidote.

123. The following recommendations arose from these discussions:

Recommendation No. 11

The meeting *recommended* that the poke stick test be evaluated by appropriate laboratories in the Pacific area using a combination of animal bioassay procedures on proven toxic and non-toxic fish samples, e.g.

- The Institut de recherches médicales Louis Malardé in Tahiti
- The Queensland Department of Primary Industries
Southern Fisheries Research Centre.

Recommendation No. 12

The meeting *recommended* that, in consultation with appropriate regional health and fisheries experts, the SPC Health and Fisheries programmes compile a concise practical manual to aid the clinical diagnosis of various types of fish poisoning in the SPC region. Such a manual should be accessible to both Fisheries and Health personnel.

Recommendation No. 13

The meeting further *recommended* that the Secretariat encourage and support national programmes to improve the diagnosis and formal notification of instances of fish poisoning. The meeting recognised that this action would require close collaboration between regional and national health and fisheries authorities.

XI. REPORT ON WORKSHOP ON PACIFIC INSHORE FISHERY RESOURCES

124. The Senior Inshore Fisheries Scientist, Mr Garry Preston, presented the recently published Workshop Report, in which the numerous issues that were addressed by the Workshop are summarised.

125. Two of the major issues arising from the Workshop were:

- i) difficulties inherent in reducing effort from over-exploited fisheries warrant a cautious approach to fishery development; and
- ii) traditional western views of fishery resources as common property are not always appropriate in the Pacific Islands, where traditional marine tenure systems are practised.

126. As a result of the Workshop, the future work programme of the IFRP was more clearly defined. The work programme, and constraints on it that were identified during the Workshop, were presented as outlined in Working Paper 7.

127. In response to a query regarding poor telecommunications in the region, the FFA Research Co-ordinator gave an update of progress with the Tuna Fishery Management Information System, indicating that its main function was to assist in providing real-time information on the current status of the fishery for use in access negotiations and planning surveillance exercises.

128. Discussion ensued on specific activities of the IFRP, their priorities and their relationship with activities of the FFA and other organisations. It was stressed by the FFA Research Co-ordinator that close co-operation between SPC and FFA would minimise duplication of effort.

129. The proposed training workshop on visual assessment techniques was discussed, particularly with regards to its restriction to finfish resources. The meeting felt that its scope should be broadened to include sedentary marine resources.

XII. PROPOSAL FOR A REGIONAL POST HARVEST FISHERIES LABORATORY

130. The SPC Fish Handling and Processing Officer, Mr Steve Roberts, presented Working Paper 16.

131. The representatives of Tonga, Fiji and Tuvalu expressed their support of the project.

132. The representative of the Institute of Marine Resources pointed out that the Diploma in Tropical Fisheries curriculum includes a post-harvest programme but adequate facilities do not currently exist.

133. The representatives of Tonga, Kiribati, Palau and Solomon Islands stressed their desire to see the project implemented as soon as possible.

134. The representative of New Zealand complimented the Secretariat on the outline for the proposed facilities; however, he felt it still required some work to ensure that the needs of the region are well met and that activities of other institutions are not duplicated. He suggested travel funds be made available for regional assessment of other institutions and that links be established for the development of the proposal.

135. The representative of Marshall Islands voiced support for the project but had difficulties with some of the proposed functions of the laboratory. Specifically, he emphasised the importance of practical applications.

136. The representative of Papua New Guinea expressed his overall support for the concept, particularly in conjunction with training facilities and related his country's experience in this sector, stressing the need for long-term commitments.

137. The representative of the United Kingdom suggested that a small committee be created to look further into the development of the project and fully document countries needs before planning. He suggested designing a questionnaire to facilitate this.

138. In conclusion, the meeting made the following recommendation:

Recommendation No. 14

The meeting endorsed the concept of establishing a regional post-harvest laboratory and recommended the formation of a small working committee to further develop this proposal taking into account country requirements.

**XIII. PROPOSAL FOR JOINT SPC/SPRADP REGIONAL RESEARCH PROJECT
ON REEF RESOURCE ENHANCEMENT AND CULTURE**

139. The SPC Senior Inshore Fisheries Scientist presented Working Paper 9 concerning a joint reef resource enhancement project in the region.

140. In response to questions from the representatives of New Zealand and Australia on the sources of funding for Phase 1 of this project, it was pointed out that this phase was an information gathering exercise and as such would not require extra funding.

141. Dr John Munro, ICLARM, defined the differences between reef 'ranching' and 'farming' and commented on reef ranching systems. He pointed out that reseeded reefs with giant clams is not economically feasible, and that clams are farmed under controlled conditions. The costs of seed production and the mortality rates of any species selected for ranching systems will determine the practicality of the exercise.

142. The representatives of Palau and Tonga expressed their countries' support for the concept of this project.

143. The representative of the Federated States of Micronesia supported the idea of this project and stated that his country desired reef seeding of trochus and green snail. He also informed the meeting of the Federated States of Micronesia's plans for mariculture projects involving giant clams and green snails.

144. The representative of Tuvalu suggested that experts in Japan be consulted for this type of study.

145. Mr Mike Doeff, FAO representative, informed the meeting of the FAO South Pacific Regional Aquaculture Project, which is funded by Japan, and indicated that if this activity received support from this meeting, the operational phase could be implemented with a minimum amount of delay.

146. The representative of Australia suggested that Phase 1 of this project investigate problems associated with seeding of non-endemic species.

Recommendation No. 15

Having reviewed and discussed the SPC/South Pacific Regional Aquaculture Development Project Proposal on Reef Resource Enhancement and Culture and noting the great interest and expressed needs of island countries in promoting ranching, culture and enhancement of valuable species, the meeting recommended that the proposed Phase 1 activities, including analysis of possible implications of introductions of new species, be undertaken by joint efforts of the SPC Inshore Fisheries Research Project and the FAO SPRADP and that Phase 2 activities, where they support on-going projects of SPC member island governments and regional institutions, likewise be promoted.

XIV. REPORT ON DIESEL OUTBOARD PROJECT IN WESTERN SAMOA

147. The representative of Western Samoa presented a report on the use of diesel outboard engines in the alia small boat fishery. Preliminary results indicate the suitability of the 27 hp diesel outboards for the alia, with fuel savings as the greatest asset. Present technical support in Western Samoa was, however, inadequate and the JICA expert felt that extensive training would have to be carried out to ensure proper maintenance of the engines if the full benefit was to be derived.

148. The representative of Tonga expressed strong interest in the trials and requested that further information be circulated in a timely fashion.

XV. REPORTS BY OTHER ORGANISATIONS

149. Dr John Munro, ICLARM, discussed items his organisation is working with, including economic analysis on clam shell production, reef fish ranching, giant clam handling, and work on stock assessment in Tonga. ICLARM have established a coastal aquaculture centre with a section of 4 hectare reef.

150. Mr Keith Meecham, FAO/UNDP, discussed his Programme's support of attachment training, computer training, update and publication of the ciguatera book, and training and employment of women in fishing. He mentioned the technical nature of the Programme's work and noted hope for future support on providing expert consultations on Pacific Ocean tuna fisheries. He announced that future UNDP-recommended funding for the Regional Fisheries Support Programme will be cut by more than half after 1989.

151. The representative of Western Samoa asked if the funding cut could be avoided. Mr Meecham replied that the Pacific countries, as UN members, can request a reversal of these cuts. The Chairman suggested the meeting express strong concern over the effects of the pending cuts on progress in the region.

152. Many representatives expressed their thanks for the support given by FAO/UNDP and supported the recommendation to lobby for a reversal of the funding cut.

Recommendation No. 16

Member countries expressed their thanks and support for the FAO/UNDP programme in the SPC region and recommended that the SPC and member countries convey their strong concern at the pending severe cuts to the programme's funding.

Recommendation No. 17

The meeting also recommended that member countries use all available diplomatic channels to have the issue raised in the United Nations with a view to encouraging UNDP to reconsider.

153. The representative of Solomon Islands asked if FAO could fund a manual now in manuscript form on the detrimental effects of destructive fishing practices. The Secretariat provided a brief account of the status of the Fiji report on the detection of fish killed by explosives.

154. The observer from the Overseas Fishery Cooperation Foundation (OFCF), Mr Ogushi, described the activities and aims of his organisation. Training and aid programmes have been carried out for Pacific Island countries, for example in the Marshall Islands, New Caledonia, French Polynesia, Solomon Islands, the Federated States of Micronesia, Papua New Guinea and Vanuatu.

155. The representatives of Marshall Islands, Tuvalu, Vanuatu, the Federated States of Micronesia, Solomon Islands, Western Samoa, Palau, Papua New Guinea and the Chair all expressed their appreciation for the support of the OFCF.

156. Dr Noel Gillespie from the Queensland Department of Primary Industries briefly described the work of that organisation in fisheries research. The Queensland Department is involved in a range of fisheries projects including the production of barramundi, general aquaculture development and ciguatera work.

157. Mr Hugh Walton, from the Institute of Marine Resources at the University of the South Pacific, presented information on his programme (IP.15).

158. The observer from FFA, Mr Andrew Wright, commented that UNDP/FFA supported two senior staff positions (economist, fisheries development officer) and joined in support of the move to save the funding. FFA conducts economic evaluations, and provides computer services, research assistance, market surveys, access negotiations and other legal services.

XVI. OTHER BUSINESS

159. The representative of Western Samoa introduced a proposal for SPC to fully fund one participant from each country for the RTMF to ensure member country participation. The meeting supported this proposal.

Recommendation No. 18

Recognising the difficulty countries have to fund participants to the RTMF, and the desirability of having at least one participant from each member country attend the meeting, the meeting *recommended* that SPC fully fund one participant from each Island Country.

160. Mr Elijah Mouku from the Solomon Island College of Higher Education presented Information Paper 18 on his programme.

161. Mr Toshiro Paulis, Chief of Marine Resources, Palau, gave a talk on his experience as a student at the first SPC Fisheries Officer Training Course held in 1956 and reviewed fisheries developments in the area from that time.

XVII. ADOPTION OF THE REPORT

162. The report of the meeting was adopted.

XVIII. SUMMARY OF RECOMMENDATIONS

RESTRUCTURING OF SPC FISHERIES PROGRAMME

Recommendation No. 1

After considering Secretariat action taken to restructure the SPC Fisheries Programmes in response to direction from the 19th Regional Technical Meeting on Fisheries and the 27th South Pacific Conference, the meeting noted with approval the changes implemented in the programme structure and *recommended* approval of the new position of Secretary to Fisheries Co-ordinator.

REPORT ON WORK PROGRAMME ACTIVITIES

Recommendation No. 2

Endorsing a recommendation from the 1988 SPC FAD Workshop, the meeting *recommended* that the Secretariat provide member countries with graphs and/or tables to assist with the calculation of catenary curves for mooring systems for FADs.

Recommendation No. 3

The meeting *recommended* that the SPC Secretariat provide a work programme for the Regional Tagging Project. The work programme should identify:

- 1) objectives for country-specific projects;
- 2) research procedures to be used to address the country objectives.

The work programme should be circulated to member countries for comments and technical evaluation by the SCTB.

Recommendation No. 4

The meeting further *recommended* that the activities of the Regional Tagging Project and of the proposed small-scale purse seine programme be coordinated when appropriate.

SPC POLICY ON CONFIDENTIALITY OF DATA SUBMITTED BY MEMBER COUNTRIES TO THE TBAP

The dissemination or publication of summaries of data relating to individual countries is regulated in strict accordance with the confidentiality requirements of the country or agency supplying the data. Only the country or agency supplying the data, or other countries or agencies so designated in writing by the country or agency supplying the data, will receive summaries.

The dissemination or publication of summaries of catch and effort data relating to the region as a whole will only be disseminated in a form aggregated by time period and by geographic area wherein the minimum level of aggregation will be (i) by month and (ii) by one-degree square of latitude and longitude. When this level of aggregation is not sufficient to meet the confidentiality requirements of a country or agency, the confidentiality requirements of the country or agency will have priority.

CONSIDERATION OF THE REPORT OF THE FIRST MEETING OF THE STANDING COMMITTEE ON TUNA AND BILLFISH (SCTB)

Recommendation No. 5

Recognising the desire for close cooperation and collaboration between DWFNs and SPC member countries, the meeting *recommended* that scientists or other representatives from DWFNs be encouraged to attend future meetings of the Committee.

Recommendation No. 6

The meeting *recommended* that, considering the importance of fishery interaction issues in the SPC area and other regions, the FAO be requested to reactivate and fund their Expert Consultation on the topic of tuna and billfish fishery interactions.

Recommendation No. 7

The meeting *recommended* that succeeding meetings of the SCTB:

- (a) be held separately from the annual SPC RTMF to enable time for preparation between the two meetings;
- (b) be held over three days to permit sufficient time for more detailed presentation and discussion of scientific results and preparation of the final meeting report;
- (c) accept the procedure that the Chairman of SCTB meetings be provided by the country supplying the Chairman to the annual RTMF.

Recommendation No. 8

Recognising the key role that member countries can play in encouraging and promoting greater DWFN involvement in the work of the SCTB, the meeting *recommended* that the SPC write to each member country in the region and request that co-operation and assistance from DWFNs in the forthcoming Regional Tuna Tagging Project be stressed during the course of access negotiations, and that national observers placed on foreign fishing vessels undertake to publicise the Regional Tuna Tagging Project whenever possible.

SPC/FFA COMPUTER TRAINING PROGRAMME

Recommendation No. 9

Recognising that some countries have an urgent need for assistance in further developing their fisheries databases, the meeting *recommended* that arrangements to run a computer systems workshop proceed as soon as possible.

SOUTH PACIFIC REGIONAL TUNA FISHING PROJECT - A PROPOSAL FOR A REGIONAL TRIAL PURSE SEINING PROGRAMME

Recommendation No. 10

Having received the project proposal as approved in principle by CRGA 9, and after careful consideration of the detailed report prepared by the Phase 1 Study Team, the meeting unanimously endorsed CRGA approval of this project as proposed, and *recommended* early implementation of the Phase 2 activity.

WORKSHOP: FISH POISONING AND SEAFOOD TOXICITY

Recommendation No. 11

The Meeting *recommended* that the poke stick test be evaluated by appropriate laboratories in the Pacific area using a combination of animal bioassay procedures on proven toxic and non-toxic fish samples, e.g.

- The Louis Malardé Medical Research Institute in Tahiti
- The Queensland Department of Primary Industries
Southern Fisheries Research Centre.

Recommendation No. 12

The meeting *recommended* that, in consultation with appropriate regional health and fisheries experts, the SPC Health and Fisheries programmes compile a concise practical manual to aid the clinical diagnosis of various types of fish poisoning in the SPC region. Such a manual should be accessible to both Fisheries and Health personnel.

Recommendation No. 13

The meeting further *recommended* that the Secretariat encourage and support national programmes to improve the diagnosis and formal notification of instances of fish poisoning. The meeting recognised that this action would require close collaboration between regional and national health and fisheries authorities.

PROPOSAL FOR A REGIONAL POST-HARVEST FISHERIES LABORATORY

Recommendation No. 14

The meeting endorsed the concept of establishing a regional post-harvest laboratory and *recommended* the formation of a small working committee to further develop this proposal taking into account country requirements.

PROPOSAL FOR JOINT SPC/SPRADP REGIONAL RESEARCH PROJECT ON REEF RESOURCE ENHANCEMENT AND CULTURE

Recommendation No. 15

Having reviewed and discussed the SPC/South Pacific Regional Aquaculture Development Project Proposal on Reef Resource Enhancement and Culture and noting the great interest and expressed needs of island countries in promoting ranching, culture and enhancement of valuable species, the meeting *recommended* that the proposed Phase 1 activities, including analysis of possible implications of introductions of new species, be undertaken by joint efforts of the SPC Inshore Fisheries Research Project and the FAO SPRADP and that Phase 2 activities, where they support on-going projects of SPC member island governments and regional institutions, likewise be promoted.

REPORTS BY OTHER ORGANISATIONS

Recommendation No. 16

Member countries expressed their thanks and support for the FAO/UNDP programme in the SPC region and *recommended* that the SPC and member countries convey their strong concern at the pending severe cuts to the programme's funding.

Recommendation No. 17

The meeting also *recommended* that member countries use all available diplomatic channels to have the issue raised in the United Nations with a view to encouraging UNDP to reconsider.

OTHER BUSINESS

Recommendation No. 18

Recognising the difficulty countries have to fund participants to the RTMF, and the desirability of having at least one participant from each member country attend the meeting, the meeting *recommended* that SPC fully fund one participant from each Island Country.

ANNEX I

LIST OF WORKING PAPERS PRESENTED AT THE MEETING

- SPC/Fisheries 20/Informal 1 - List of participants
- WP. 1 - Restructuring of SPC Fisheries Programmes
- WP. 2 - Summary report of the South Pacific Commission 1987/88
Activities under the Fisheries Work Programme
- WP. 3 - Establishment of special interest groups
- WP. 4 - A study of Solomon Islands tuna length frequency data
- WP. 5 - Regional Tuna Tagging Project
- WP. 6 - Tuna tagging aboard skiffs in Kiribati
- WP. 7 - Constraints on Pacific Island inshore fishery research and
the work programme of the South Pacific Commission's
Inshore Fisheries Research Project
- WP. 8 - Computer training course
- WP. 9 - Proposal for joint SPC/SPRADP Regional Research Project
on reef resource enhancement and culture
- WP.10 - Regional Tuna Bulletin - first quarter 1988
- WP.11 - Country statement - Federated States of Micronesia
- WP.12 - Can fisheries training be made more effective?
- WP.13 - A review of the South Pacific albacore fishery:
research and fishing activities.
- WP.14 - Comment évaluer et prévenir le risque ciguatérique : réalité
et perspectives, by R.Bagnis
- WP.15 - Report on the Standing Committee on Tuna and Billfish
- WP.16 - Proposal for a regional post harvest fishery laboratory
- WP.17 - Investigations on Western Pacific yellowfin fishery
interaction using catch and effort data

- WP.18 - Country statement - Tokelau
- WP.19 - Fish poisoning in Tokelau, by Mose Pelasio
- WP.20 - Country statement - Solomon Islands
- WP.21 Workshop on fish poisoning and seafood toxins. Situation Summary - Solomon Islands
- WP.22 - Country statement - Republic of Palau
- WP.23 - Country statement - Kingdom of Tonga
- WP.24 - Country statement - Kiribati
- WP.25 - Ciguatera fish poisoning in Kiribati
- WP.26 - Status of tuna resources and research in New Zealand
- WP.27 - Country statement - Australia
- WP.28 - Proposal for a South Pacific Tuna Fisheries Development Programme - Trial purse-seine fishing
- WP.29 - Country statement - Papua New Guinea
- WP.30 - Country statement - Vanuatu
- WP.31 - Country statement - Marshall Islands
- WP.32 - Country statement - Fiji
- WP.33 - Progress report on SPC Gear Development Project
- WP.34 - Country statement - Northern Mariana Islands
- WP.35 - The alia small boat fishery in Western Samoa
- WP.36 - Proposal for South Pacific Tuna Fisheries Project

- Information Paper 1 - The adequacy of current billfish fisheries statistics for stock assessment and management purposes
- 2 - Data catalogue - Tuna and Billfish Assessment Programme - 1988
- 3 - The Fisheries Programmes of the South Pacific Commission
- 4 - Interaction among South Pacific skipjack fisheries
- 5 - Methods of studying fishery interaction
- 6 - El Nino - southern oscillation phenomenon 1986 - 87
- 7 - Report on the International Symposium and Educational Workshop on Fish Marketing Techniques - Seattle, 27 June - 1 July 1988
- 8 - Status of the MMDC Giant Clam Hatchery - Republic of Palau, April 1988
- 9 - Tuna and Billfish Research at the Southwestern Fisheries Centre
- 10 - South Pacific Albacore
- 11 - Research activities and publications 1987-88
- 12 - Seasonal changes of the distribution of South Pacific albacore based on Taiwan's tuna longline fisheries
- 13 - Ciguatera in Papua New Guinea
- 14 - Ciguatera in Australia
- 15 - USP Information Paper
- 16 - Ciguatera fish poisoning
- 17 - Extension and community skills for fisheries extension officers
- 18 - Solomon Islands College of Higher Education School of Marine and Fisheries Studies - Prospectus 1989
- 19 - Status of fish poisoning investigations in Federated States of Micronesia
- 20 - ICLARM activities in the South Pacific region: 1987 - 88

LIST OF PARTICIPANTS

American Samoa

Mr William Emmsley
Deputy Director
Office of Marine and Wildlife Resources
P.O. Box 3730
PAGO PAGO 96799

Australia

Dr Meryl J. Williams
Assistant Director
Fisheries Resources Branch
Bureau of Rural Resources
Department of Primary Industries
and Energy
CANBERRA, ACT 2600

Dr N. Gillespie
Fisheries Research Branch
Queensland Department of
Primary Industries
G.P.O. Box 46
BRISBANE, QLD

Mr Richard Fell
Overseas Development Section
Queensland Department of
Primary Industries
G.P.O. Box 46
BRISBANE, QLD

Cook Islands

Mr Julian Dashwood
Secretary
Ministry of Marine Resources
P.O. Box 85
RAROTONGA

Mr Colin Brown
Director Fisheries Management
Ministry of Marine Resources
P.O. Box 85
RAROTONGA

Federated States of Micronesia

Mr Peter Sitan
Executive Director
Micronesian Maritime Authority
P.O. Box D
Kolonias
POHNPEI 96941

Federated States of Micronesia (cont.)

Mr Mike Gawel
Chief, Marine Resources
Department of Resources and Development
P.O. Box D
KOLONIA, Pohnpei 96941

Mr Asher Edwards
Community College of Micronesia
P.O. Box 159
KOLONIA, Pohnpei 96941

Fiji

Mr Tui Cavuilati
Director of Fisheries
Fisheries Division
Ministry of Primary Industries
P.O. Box 358
SUVA

Mr Surendra Sewak
Principal Fisheries Officer
Fisheries Division
Ministry of Primary Industries
P.O. Box 358
SUVA

France

M. Claude Maynot
Second délégué français
Délégation française auprès de la CPS
B.P. 420
NOUMEA, New Caledonia

M. René Grandperrin
Responsable du laboratoire d'océanographie
biologique
Centre ORSTOM de Nouméa
B.P. A5
NOUMEA, New Caledonia

M. Renaud Pianet
Océanographe biologiste
Centre ORSTOM de Nouméa
B.P. A5
NOUMEA, New Caledonia

M. Dominique Laurent
Pharmaco-chimiste (substances
d'origine marine)
Centre ORSTOM de Nouméa
B.P. A5
NOUMEA, New Caledonia

French Polynesia

M. Arsène Stein
Biologiste des pêches
Etablissement pour la valorisation
des activités aquacoles et maritimes
(EVAAM)
B.P. 20
PAPEETE, Tahiti

Kiribati

Mr Teekabu Tikai
Chief Fisheries Officer
Fisheries Division
Ministry of Natural Resources
and Development
P.O. Box 276
BIKENIBEU, Tarawa

Capt Mark Day
Fisheries Division
Ministry of Natural Resources
and Development
P.O. Box 276
BIKENIBEU, Tarawa

Marshall Islands

Mr W. Coleman
Chief Fisheries Officer
Marshall Islands Marine Resources Authority
Ministry of Resources and Development
P.O. Box 306
MAJURO 96960

New Caledonia

M. Philippe du Couedic de Kergoaler
Chef du service territorial de la marine
marchande et des pêches maritimes
B.P. 36
NOUMEA

M. Bernard Viu
Chef de la section pêche et des
cultures marines
Service de la marine marchande
et des pêches maritimes
B.P. 36
NOUMEA

M. Max Palladin
Ingénieur chargé des pêches
Service de la marine marchande
et des pêches maritimes
B.P. 36
NOUMEA

New Zealand

Dr Talbot Murray
Fisheries Research Centre
Ministry of Agriculture and Fisheries
P.O. Box 297
WELLINGTON

Northern Mariana Islands

Mr Calistro Falig
Fishery Biologist
Division of Fish and Wildlife
Department of Natural Resources
P.O. Box 211 CHRB
SAIPAN 96950

Palau

Mr Toshio Paulis
Chief
Marine Resources Division
Ministry of National Resources
P.O. Box 100
KOROR 96940

Papua New Guinea

Mr A. Richards
Acting Chief Biologist
Department of Fisheries and
Marine Resources
P.O. Box 165
KONEDOBU

Solomon Islands

Mr Sylvester Diake
Senior Fisheries Officer (Ag)
Fisheries Department
Ministry of Natural Resources
P.O. Box G24
HONIARA

Mr Paul Nichols
Principal Fisheries Officer (Ag)
Ministry of Natural Resources
P.O. Box G24
HONIARA

Mr Mouku
Solomon Islands College of Higher Education
P.O. Box G23
HONIARA

Tokelau

Mr Mose Palasio
Officer for Tokelau Affairs
P.O. Box 865
APIA, Western Samoa

Tonga

Mr Viliami Langi
Fisheries Officer
Fisheries Division
Dept of Agriculture, Fisheries and Forests
P.O. Box 14
NUKU'ALOFA

Tuvalu

Mr Elisala Pita
Chief Fisheries Officer
Fisheries Division
Ministry of Commerce and
Natural Resources
P.O. Box 70
VAIAKU, Funafuti

Mr Graham Faulkner
Manager
NAFICOT
P.O. Box 70
VAIAKU, Funafuti

United Kingdom

Mr N. Willoughby
Fisheries Adviser
British Development Division in the Pacific
Private Mail Bag
SUVA, Fiji

United States of America

Mr Harold Weeks
Office of Fisheries Affairs
Bureau of Oceans and International
Environmental and Scientific Affairs
Department of State
WASHINGTON, D.C. 20520

Dr Georges Boehlert
Director, Honolulu Laboratory
National Marine Fisheries Services
National Oceanic and
Atmospheric Administration
Department of Commerce
HONOLULU, Hawaii

United States of America (cont.)

Mr Les Clark
Fisheries Development Adviser
United States Agency for
International Development (USAID)
Regional Development Office -
South Pacific
SUVA, Fiji

Mr Doyle Gates
Administrator
Western Pacific Program Office
National Marine Fisheries Service
National Oceanic and
Atmospheric Administration
Department of Commerce
HONOLULU, Hawaii

Mr Lamarr Trott
Senior Fisheries Officer
Bureau of Science and Technology
United States Agency for
International Development (USAID)
WASHINGTON, D.C.

Vanuatu

Mr Larry Vallance
Natai Fish Market
PORT VILA

Wallis and Futuna

Mr Clovis Logologofolau
Conseiller territorial
Responsable des activités de pêche
Assemblée territoriale
B.P. 37
MATA'UTU

Western Samoa

Mr Ueta Fa'asili
Chief Fisheries Officer
Department of Agriculture, Forests
and Fisheries
P.O. Box 206
APIA

Mr Otaki
Diesel Marine Engineer
Department of Agriculture, Forests
and Fisheries
P.O. Box 206
APIA

OBSERVERS

**Food and Agriculture Organization
of the United Nations (FAO)**

Mr Keith Meecham
Programme Director
FAO/UNDP Regional Fisheries Support
Programme
UNDP
Private Mail Bag
SUVA, Fiji

Mr Robert Gillett
Fisheries Development Adviser
FAO/UNDP Regional Fisheries Support
Programme
UNDP
Private Mail Bag
SUVA, Fiji

Mr M. Doeff
FAO/UNDP Regional Fisheries Support
Programme
UNDP
Private Mail Bag
SUVA, Fiji

Forum Fisheries Agency (FFA)

Mr Andrew Wright
Research Coordinator
Forum Fisheries Agency
P.O. Box 629
HONIARA, Solomon Islands

Mr Peniasi Kunatuba
Fisheries Development Officer
Forum Fisheries Agency
P.O. Box 629
HONIARA, Solomon Islands

**International Center for Living
Aquatic Resources Management
(ICLARM)**

Mr J. L. Munro
South Pacific Office
ICLARM
P.O. Box 438
HONIARA, Solomon Islands

**Institut français de recherche pour
l'exploitation de la mer (IFREMER)**

M. Daniel Dussert
Délégué IFREMER en Nouvelle-Calédonie
B.P. 2059
NOUMEA, New Caledonia

**Institut français de recherche pour
l'exploitation de la mer (IFREMER) (cont.)**

M. Jean-Louis Martin
Coordonnateur du programme de
développement de l'aquaculture en
Nouvelle-Calédonie
B.P. 2059
NOUMEA, New Caledonia

**Institut de recherches médicales
Louis Malardé**

Dr R. Bagnis
Institut de recherches médicales
Louis Malardé
B.P. 30
PAPEETE, French Polynesia

**Overseas Fishery Cooperation
Foundation (OFCF)**

Mr Michimasa Ogushi
Deputy Director of Planning and
Development Department
Overseas Fishery Cooperation Foundation
Akasaka Twin Tower East 18th Floor
2-17-22 Akasaka Minato-ku
TOKYO 107, Japan

Mr Masanami Izumi
Overseas Fishery Cooperation Foundation
Akasaka Twin Tower East 18th Floor
2-17-22 Akasaka Minato-ku
TOKYO 107, Japan

University of the South Pacific

Mr Hugh Walton
Acting Director
Institute of Marine Resources
University of the South Pacific
P.O. Box 1168
SUVA, Fiji

Mr G. Bahlman
Acting Director
Computer Centre
University of the South Pacific
P.O. Box 1168
SUVA, Fiji

Private

Mr P. Kliev
Department of Scientific
and Industrial Research
Biotechnology Division
Private Bag
PALMERSTON NORTH, New Zealand

CONSULTANTS

M. Régis Toussaint
Président Directeur Général
COFREPECHE
59, rue des mathurins
75008 PARIS, France

M. P. Veillon
COFREPECHE
59, rue des mathurins
75008 PARIS, France

Mr David Itano
Office of Marine and Wildlife Resources
P.O. Box 3730
PAGO PAGO, American Samoa

SPC SECRETARIAT

Mr Jon Jonassen
Director of Programmes

Mme Hélène Courte
Deputy Director of Programmes

Mr Bernard Smith
Fisheries Coordinator

Mr Garry Preston
Senior Inshore Fisheries Scientist

Mr John Hampton
Senior Fisheries Scientist

Mr Richard Farman
Fisheries Research Scientist

Mr James Ianelli
Fisheries Research Scientist

Mr Tim Lawson
Fisheries Statistician

Mr Peter Williams
Assistant Fisheries Statistician

Mr Alastair Robertson
Fisheries Training Officer

Mr Steve Roberts
Fish Handling/Processing Officer

Mr Steve Terrell-Perica
Health Surveys Epidemiologist

Mr Sam Taufao
Programmer/Research Assistant

Mr Jeffrey Stander
Computer Systems Manager

Ms Veronica van Kouwen
Documents Officer/TBAP

Ms Helen Wolfgramm-Page
Secretary/TBAP

Ms Louise Gravel
Secretary/DSFDP

Mr Michel Mertens
Manager Interpretation/Translation Section

Mr Edward Marie-Magdeleine
Interpreter

Mr Roy Benyon
Interpreter

Mlle Dominique Toulet
Interpreter

Mr Didier Holtzwarth
Translator

Mr Patrick Cowan
Translator

Mrs Marina Laplagne
Translator

Mrs Kay Legras
Secretary to the Meeting

Mr Philip Hardstaff
Maintenance Technician