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SOUTH PACIFIC COMMISSION

SEVENTEENTH REGIONAL TECHNICAL MEETING ON FISHERIES
(Noumea, New Caledonia, 5-9 August 1985)

SUMMARY REPORT OF THE SOUTH PACIFIC COMMISSION ACTIVITIES UNDER THE
FISHERIES WORK PROGRAMME - COASTAL RESOURCES

(Paper prepared by the Secretariat)

1. The activities of the South Pacific Commission in the development of coastal fisheries throughout the region, covering the period August 1984 to July 1985, will be reported in detail under Agenda items 4 and 5. A summary is presented here to facilitate discussion under these items.

2. Coastal resource staff at 31 July 1985 consisted of the following 8 posts/personnel: Fisheries Adviser (B.R. Smith); Assistant Fisheries Officer (G.L. Preston); Master Fisherman (P.D. Mead); Master Fisherman (P. Taumaia); Master Fisherman (L.B. Chapman); Fish Processing Officer (vacant); Fisheries Training Officer (Capt. A.C. Robertson takes up post in September); Secretary/Administrative Assistant (S. Rodgers).

I - DEEP SEA FISHERIES DEVELOPMENT PROJECT

3. The Deep Sea Fisheries Development Project operates at village or artisanal level in SPC member countries following formal government request. Its objectives are:

- (i) to promote the development or expansion of artisanal fisheries throughout the region based on fishery resources which are at present under-utilised, in particular the deep bottom resources of the outer reef slope and offshore aggregations of surface and mid-water pelagic fish;
- (ii) to develop and evaluate new simple-technology fishing gear and techniques suitable for use by village fishermen, which will enable them to substantially increase catches while reducing dependence on costly imported fuels;
- (iii) to provide practical training in appropriate fishing techniques to local fishermen and government fisheries extension workers.

4. The Project superseded the Outer Reef Artisanal Fisheries Project in 1978, and since that time has completed 35 visits to 16 countries, with three more still in progress. Seven country visits have been partially or wholly completed during the past year (August 1984 to July 1985) as detailed in Table 1.

TABLE 1: DEEP SEA FISHERIES DEVELOPMENT PROJECT ACTIVITIES,
1 AUGUST 1983 - 31 JULY 1984

<u>Country, dates,</u> <u>master fisherman</u>	<u>Primary objectives</u>	<u>Activities of</u> <u>master fisherman</u>
Fiji 1/84-3/85 P.D. Mead	Training, gear develop- ment	Training village fishermen in deep bottom fishing techniques in Fiji's Northern Division. Development of vertical long-lines for use in capture of large, deep-swimming tuna around FADs. Experimentation with deep-trolling, ika-shibi fishing, etc. on FADs. Assist in air-shipment of tunas and bottom fish to Hawaii.
Kiribati 4/84-12/84 P. Taumaia	Training, export market development	Training government demonstra- tion team on Tarawa in deep- bottom fishing techniques. Sim- ilar training for private fish- ermen in outer islands. Prelim- inary air-shipment trials of deep bottom fish from Christmas Is. to Hawaii.
Federated States of Micronesia 7/84-3/85 L.B. Chapman	Training, export market development	Training of fishing authority crews in deep-bottom fishing and fish handling methods for export of fish to Guam. Deploy- ment of FADs and some experi- mental fishing/gear development work.

Marshall Islands 1/85-7/85 P. Taumaia	Training	Training government demonstration team and island fishermen in deep-bottom fishing techniques.
Tonga 3/85 - current P. Mead	Training	Training of fishermen purchasing new government-built fishing boats in deep-bottom and other fishing methods, boat handling and maintenance, etc.
New Caledonia 6/85 - current L. Chapman	Gear development, training	Experimental fishing around FADs, training of local fishermen in FAD-fishing and deep-bottom fishing techniques.

5. Dropline fishing for deep-water snappers continued to remain a major fishing technique used by the master fishermen, particularly when activities involved training of local fishermen. However, most country visits this year were characterised by a wide range of objectives and involved work of a varied nature. The master fishermen have generally worked at more than one level within the fisheries sector; for example, in assisting with both catching, processing and exporting the fish in visits to Kiribati and FSM; and in the development of fishing techniques accompanied by training for fishermen, in Fiji and New Caledonia.

6. Continued emphasis is being placed on the evaluation of new fishing methods and gears, in line with recommendations from previous technical meetings. Gear development activities formed the major part of the Fiji country visit and important components of those to the Federated States of Micronesia and New Caledonia. Substantial contributions of fishing gear were again made by FAO/UNDP Regional Fisheries Development Project RAS/73/025 and its successor, RAS/85/004, which the Commission acknowledges with thanks.

7. In addition to the formal country visits listed in Table 1, the Project Master Fishermen have been involved in a variety of other activities. These are:

- a) a six-week suspension of the Tonga country visit in June/July to enable Master Fisherman Paul Mead to instruct SPC trainees in small-boat fishing techniques. The trainees travelled from New Zealand, where they had attended the SPC/Nelson Polytechnic Pacific Fisheries Officer Training Course (see para 13) to participate in the practical fishing module in Fiji.

- b) two weeks spent in Hawaii by Master Fisherman Lindsay Chapman, who examined the Honolulu Fish Auction's operating practices and quality requirements, and participated in two palu-ahi ('drop-stone') fishing trips.
- c) three weeks spent in Fiji by Master Fisherman Pale Taumaia, to familiarise himself with gear development work carried out during the Fiji country visit.

II - FISH HANDLING AND PROCESSING PROJECT

8. This Project was approved by the 1984 South Pacific Conference following a recommendation from the 1983 Regional Technical Meeting on Fisheries which identified training in basic fish handling and processing as a priority need in most countries of the region. Funding for the position of a fish handling and processing officer has generously been made available by the New Zealand Government, and recruitment procedures are under way.

9. The Project is modelled on the Deep Sea Fisheries Development Project, with which it will be closely linked. Its objectives, broadly expressed, are

- (1) to assist countries in the improvement and upgrading of fish handling practices in all sectors of the national fishing industry.
- (2) to promote the use of and assist with the development of simple processing techniques suitable for use in Pacific Island countries.

10. The Fish Handling and Processing Officer will be a suitably qualified and motivated specialist with a background of practical experience in the fishing industry, able to provide technical advice and training assistance, on request, to SPC member countries and territories during in-country assignments. These are expected to last from 2 to 3 months, during which period the specialist will conduct training programmes and workshops tailored to meet the specific requirements of individual countries, and provide on-the-job instruction to fishermen and to staff involved in the handling, processing and marketing of fishery products. During the first year of the project, conditional on suitable funding being available, a regional training course in fish handling and simple processing is proposed to train instructors from within the region. The SPC specialist will provide follow-up training assistance to graduates of this course during subsequent country visits and involve them in all aspects of the project in-country training activities.

III - TRAINING

Regional Fisheries Training Project

11. The Commission's Regional Fisheries Training Project, strongly endorsed by last years Regional Technical Meeting on Fisheries, was incorporated into the work programme by the 1984 South Pacific Conference, and core funding for two years had been generously committed by the Australian Government. Two new staff have been appointed to administer the Project, and we anticipate shortly being in a position to offer vocational training programmes in a wide range of specialised fisheries and marine-related topics. It is also anticipated that already established SPC fisheries training activities will be administered through this project. Priority activities to be undertaken under the auspices of this project will be discussed in detail under agenda item 6.

SPC/Nelson Polytechnic Pacific Fisheries Training Course

12. Twelve students from 11 SPC member countries attended the sixth SPC/Nelson course, which ran from February to June 1985. As with other intakes in recent years, the student group was well-balanced and included a number of mature age students. The tendency of SPC member countries to nominate older candidates is a welcome trend as these students tend to be more conscious of their own training needs and specific areas of interest, as well as adding stability to the group.

13. For the second time, a practical fishing module was held in association with the course. The five-week module, generously hosted by the Fiji Government, consisted of at-sea training in a variety of fishing techniques, and small boat operation and safety at sea, under the supervision of Captain Alastair Robertson, tutor-in-charge of the School of Fishing at Nelson Polytechnic and SPC Master Fisherman Paul Mead. A videotape which illustrates the type of training undertaken by students attending the SPC/Nelson course has been produced with the assistance of the Nelson Polytechnic and will be screened during the meeting.

14. Funding for the 1986 SPC/Nelson course has now been secured from all major sponsors. This will enable early announcement of the course and give all member countries enough time to identify and nominate suitable candidates. This has not always been possible in past years.

SPC/UNDP Regional Refrigeration Training Course

15. This was a 20-week course in refrigeration equipment maintenance and repair, directed particularly at technicians and mechanics from within the fisheries sector. The course constituted phase II of the SPC/UNDP Regional Refrigeration Assessment and Training Project (see para 18). The course was held in Rarotonga from 25 February to 5 July 1985 and was attended by 14 students from 11 SPC member countries. This activity is reported in detail in WP.10, and will be considered and discussed under agenda item 5.

Training attachments

16. Three trainees from Tonga and one from Kiribati, all funded by UNDP, were attached for one-month periods to SPC Master Fisherman Paul Mead during his assignment to Fiji, for on-the-job training in fishing and boat handling methods. These attachments proved extremely successful, with trainees participating fully in all aspects of the Project's work. With the trainees subject to fewer distractions due to their being away from home and their normal domestic environment, the intensive training provided proved very effective and we hope to promote more on-the-job training attachments of this nature in future years.

Other training activities

17. Commission staff were instrumental in organising a 4-week training programme in beche-de-mer processing, funded by the FAO/UNDP South Pacific Regional Fisheries Development Programme and hosted by the Government of Fiji. Four trainees from Micronesia spent this period working with the Fiji Fisheries Division's Fish Processing Unit, based on the island of Beqa, collecting and processing sea cucumbers as part of a village level extension activity.

IV - SPC/UNDP REGIONAL REFRIGERATION ASSESSMENT AND TRAINING PROJECT

18. This two-phase project commenced in August 1984 following strong support from the 16th Regional Technical Meeting on Fisheries. A survey of fisheries sector refrigeration equipment was carried out in 11 countries of the region by SPC Assistant Fisheries Officer Garry Preston and UNV Refrigeration Engineer Mike Vincent. The survey, which aimed to document refrigeration problems and propose ways of avoiding them in future, is reported in Working Paper 2. Subsequently, a 20-week training course in refrigeration was held in Rarotonga, and was attended mainly by students interviewed during the survey. Both the survey and the training course will be discussed under agenda item 5.

V - ANALYSIS OF DEEP BOTTOM FISH RESOURCE DATA

19. Progress towards a detailed analysis of catch and effort data generated during Deep Sea Fisheries Development Project visits to member countries has been disappointingly slow. Lack of manpower has obstructed the lengthy procedure of encoding catch forms for computer entry, a prerequisite to such analysis. It has not been possible to produce even a preliminary analysis in time for the recently-held "Workshop on the Biology and Fishery Management of Snappers and Groupers in the Tropics" as originally intended.

20. Manpower shortage is likely to continue to cause problems in the completion of this analysis, and the Commission continues to seek ways to alleviate it. An original proposal to employ a fisheries scientist for this work was dropped from the work programme following three years in which the Commission was unsuccessful in locating extra-budgetary funding support for the post. We are now exploring the possibility of co-operative arrangements with ORSTOM and NMFS, and these avenues appear promising. The forthcoming appointments under the Fisheries Training Project will also increase the availability of other staff to be involved in this work.

VI - SPC GRANTS-IN-AID (FISHERIES)

Inter-country study visits

21. Although several requests for fisheries-related inter-country study visits were received and approved, none were undertaken during the reporting period.

Short-term expert and specialist services

22. One consultancy was carried out during the year. Mr M. Dredge, of the Australian Department of Primary Industry, visited Daru, in Papua New Guinea in November 1984, to assess the potential for small-scale prawn trawling in the Gulf of Papua. Mr Dredge worked with the PNG Department of Primary Industry in constructing and field-testing several types of small beam-trawl from motorised boats and sailing canoes. Fishing trials yielded good catch rates and it is anticipated that prawn-trawling would yield higher returns to small-scale fishermen in this area than other forms of fishing. The consultant estimated a fishery potential of 100-200 tonnes of prawns per year, spread along about 130 nautical miles of coastline.

VII - TRAVEL, COMMUNICATIONS AND DISSEMINATION OF INFORMATION

Duty travel

23. Duty travel in connection with the coastal resources work programme was undertaken to the following countries:

Fisheries Adviser: Australia, Cook Islands (2), Fiji (2), New Zealand, Vanuatu.

Assistant Fisheries Officer: Cook Islands, Federated States of Micronesia, Fiji (2), French Polynesia (2), Kiribati, Marshall Islands, Papua New Guinea, Solomon Islands, Tonga, Tuvalu, Vanuatu and Western Samoa.

Master Fisherman (P. Mead): Fiji, New Caledonia, Tonga.

Master Fisherman (P. Taumaia): Fiji, Kiribati, Marshall Islands, Tuvalu.

Master Fisherman (L. Chapman): Federated States of Micronesia, Guam, Hawaii, New Caledonia.

Clearing-house services

24. The Fisheries Adviser and Assistant Fisheries Officer maintained the clearing-house function of the section. Much time was spent in answering a large number of requests from member countries for technical information or advice on a wide variety of subjects, ranging from pearl shell farming to alternative energy for refrigeration. Where necessary, third parties were contacted to provide missing information. The section also maintains contacts and up-to-date information on a wide range of related areas, e.g. fishing gear suppliers, training opportunities, and resource personnel, which are made available to member countries.

Fisheries Newsletter

25. The format of this publication was changed early in 1983 to allow for faster production and more timely circulation, and since that time every effort has been made to ensure that the content is topical and specifically relevant to the Pacific situation. The English version has appeared approximately quarterly, although some issues have been late in appearing due to backlogs of work which have caused delays in compilation, typing or printing. The French versions require translation from the (usually) original English text and more substantial delays have occurred. Nevertheless, reader response to the new format has been encouraging beyond Secretariat expectations, with many correspondents submitting reports on current activities, or more lengthy articles on specific topics. In addition, we have received numerous new requests for subscriptions, many of which have had to be turned down due to budget restrictions. The popularity of this publication continues to increase, and the Secretariat is considering a charging system for those subscribers from outside the region.

Deep Sea Fisheries Development Project Reports

26. Backlogs in finalising the outstanding reports of several DSFD Project country visits have recently been addressed and a number are in press. We anticipate being able to eliminate the backlog by year-end.

Other publications

27. No other publications were issued this year. Several are in press, including the report of a consultancy on the specimen shell resources of Tuvalu, carried out in 1984, and two handbooks on fishing techniques.

VII - SUMMARY OF ACTION TAKEN IN RESPONSE TO RECOMMENDATIONS OF THE
SIXTEENTH REGIONAL TECHNICAL MEETING ON FISHERIES

Recommendation No. 1

The meeting recommended that increased emphasis be given in the work of the Deep Sea Fisheries Development Project to ways of overcoming bait problems of deep bottom fishing and tuna fishing around fish aggregation devices (FADs), including studies on suitable bait species and appropriate methods of capturing them.

Action taken

Initial squid fishing trials carried out in Fiji, and more extensive trials planned for New Caledonia, address this recommendation. Further work will be undertaken where it fits in with specific country requests under the Deep Sea Fisheries Development project.

Recommendation No. 2

The meeting recommended that the gear development activities of the Deep Sea Fisheries Development Project include trials of suitable methods and gears for deep bottom fishing in depths greater than those able to be fished by the hand reel technique.

Action taken

No action taken so far as individual country requests have precluded this type of work.

Recommendation No. 3

The meeting recommended that the SPC master fishermen be given the opportunity to extend their skills through study visits to learn new fishing techniques in use outside the region but which could have practical applications to the South Pacific.

Action taken

One study visit to Hawaii (Mr L. Chapman) made for study of palu-ahi technique: one internal study visit to Fiji (Mr P. Taumaia) for familiarisation with gear development work (see para 7).

Recommendation No. 4

The meeting recommended acceptance of the Secretariat's proposal for a Regional Fisheries Training Project as detailed in working paper 21 and requested the South Pacific Commission to seek approval and funding for the project.

Action taken

Approval and funding confirmed, with a core 2-year programme to be discussed at this meeting. Fisheries Training Officer and Secretary/Administrative Officer appointed.

Recommendation No. 5

The meeting recommended that the South Pacific Commission study means of enabling French-speaking trainees to draw maximum benefit from all training activities that the Commission helps to organise.

Action taken

Equal consideration will be given to conducting English- and/or French-language courses under the Regional Training Project whenever sufficient demand exists.

Recommendation No. 6

Recognising the effort made by the French Government in developing satellite imagery techniques for use for (a) oceanographic research and (b) for estimation of coastal and terrestrial resources and the subsequent provision of such information to the South Pacific Commission and the countries of the region, the meeting recommended that the South Pacific Commission encourage the French Government to continue its efforts in this field.

Action taken

The French Government is proceeding with implementation of the SPOT system, and the satellite is scheduled to be launched in October 1985.

Recommendation No. 7

The meeting recommended that the South Pacific Conference encourage member government to respond as quickly as possible to the Secretariat's request for comments and suggestions for alternative mechanisms for obtaining additional input into the work of the Tuna and Billfish Assessment Programme.

Action taken

See Working Paper 3.

Recommendation No. 8

The meeting recommended that the South Pacific Commission meet with representatives of the Forum Fishery Agency and the South Pacific Bureau for Economic Co-operation, and taking into account the views of member governments and distant-water fishing nations, prepare a specific proposal on the future of the Tuna and Billfish Assessment Programme for consideration at the 1985 meeting of the Committee of Representatives of Governments and Administrations.

Action taken

See Working Paper 3.

Recommendation No. 9

The meeting recommended that the principle of an Expert Committee on Tropical Tuna be maintained with meetings of appropriate experts to be convened at the direction of the technical meeting or at the request of the Tuna Programme or donor governments; the Expert Committee to be held independently of the technical meeting.

Action taken

See Working Paper 3.

Recommendation No. 10

The meeting endorsed the coconut crab research proposal outlined in working Paper 13 and recommended that it be given high priority in view of its regional importance.

Action taken

Funded by the Australian Centre for International Agricultural Research, this project is now being carried out by the Queensland Department of Primary Industries in collaboration with the University of Queensland and the Vanuatu Fisheries Department.

Recommendation No. 11

In view of the considerable interest generated during the artisanal fishing boat workshop, it was recommended that a further workshop be arranged to examine aspects of artisanal fishing boat design for the Pacific region, as outlined in working paper 14. Due to the constraints of time imposed on the annual technical meeting, the workshop should be convened as a separate entity.

Action taken

Tentative discussions have been held with FAO regarding the possibility of a joint workshop and training course, to be held under the auspices of the Regional Fisheries Training Projects. Further action will depend on the priorities determined for the Training Project at this meeting.

Recommendation No. 12

After discussing a suggestion put forward on behalf of the representative of the United States of America, the meeting recommended that a workshop on the biology and exploitation of deep bottom snapper be incorporated in next year's technical meeting. It further recommended that the South Pacific Commission seek funding to enable technical experts from within the region to attend the workshop.

Action taken

Workshop to be held this year as recommended.
