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REPORT ON SPC COASTAL FISHERIES PROGRAMME ACTIVITIES 1991-1992

(Paper prepared by the Secretariat)

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1 INTRODUCTION

1 This paper outlines the activities carried out by the Coastal Fisheries Programme (CFP) of the South Pacific Commission from 1 July 1991 to 30 June 1992, and is presented to facilitate discussion when the Fisheries Work Programme is reported.

2 The collective aims of the Programme are to assist with development of small to medium-scale locally-based fisheries through programmes of formal and informal training, demonstration and development of fishing gears and techniques, technical assistance in a range of post-harvest areas, research and advice on aspects of resource management, and information services.

3 Overall management of the CFP is the responsibility of the Coastal Fisheries Programme Manager (CFPM), a new position which was filled for the first time in January 1992 with the appointment of former Senior Inshore Fisheries Scientist Garry Preston. The CFPM operates under the direction of the Fisheries Coordinator (FCOORD), Julian Dashwood, who also oversees the work of the Tuna and Billfish Assessment Programme and interacts extensively with SPC Principal Officers in overall Fisheries Programme management.

4 The CFP includes eight projects and sub-projects, as follows:

Inshore Fisheries Research Project (IFRP)
Fisheries Information Project (FIP)
Deep Sea Fisheries Development Project (DSFDP)
Offshore Fisheries Development Project (OFDP)
Fish Handling and Processing Project (FHPP)
Women's Fisheries Development Project (WFDP)
Regional Fisheries Training Project (RFTP)
OFCF Fishery Development Project

5 For management purposes, the FIP is considered a sub-project of the IFRP, but is reported as a separate item here due to the wide scope of its activities. The OFDP is a new activity within the DSFDP, and is reported as part of that project. It replaces the Gear Development Project, whose operational phase effectively came to a close in December 1991. The WFDP is considered a sub-project of the FHPP, and is reported as part of that project.

6 The CFP presently consists of a total of 18 positions, as follows:

Coastal Fisheries Programme Manager	Senior Inshore Fisheries Scientist
Fisheries Development Officer	Post Harvest Fisheries Advisor
Fisheries Education and Training Advisor	Inshore Fisheries Scientist
Fisheries Information Officer	Fisheries Development Associate
Women's Fisheries Development Officer	Fisheries Training Associate
Master Fisherman (4)	Project Assistant (4)

Two positions (Women's Fisheries Development Officer, and one Master Fisherman post) are presently vacant. Because of extra-budgetary funding constraints, it is unlikely that either of these two positions will be filled in the near future.

7 The accomplishments and undertakings of each CFP project during the past twelve months are described below, and where possible an indication of future directions or planned new activities given. Secretariat action taken in response to the recommendations passed by the 23rd RTMF is reported in WP 1.

2 INSHORE FISHERIES RESEARCH PROJECT

2.1 General

8 The Inshore Fisheries Research Project (IFRP) continued to support fisheries research related activities in the region for a sixth successive year during 1991/92. This project is maintained through extra-budgetary funding provided by the British Government, which will continue until March 1993.

9 The project comprises the posts of Senior Inshore Fisheries Scientist (SIFS), Inshore Fisheries Scientist (IFS) and Project Assistant (PA/IFRP). In April 1992, SIFS Garry Preston moved to another position within the Fisheries Programme and was replaced by Timothy Adams, formerly of Fiji Fisheries Division. The IFS position continued to be occupied by Paul Dalzell, and the PA/IFRP post by Kay Legras.

10 Also associated with the IFRP is the Fisheries Information Project (FIP), within which the single staff position of Fisheries Information Officer (FIO) is funded by the Government of France. This project is reported in section 3 below.

11 Since the inception of the project the IFRP has hosted two workshops, supported 30 specific national-level resource assessment projects, plus numerous smaller assignments, as well as 7 regional resource assessment activities, and longer term information gathering and dissemination activities. About 40 Pacific Island fishery workers have participated in IFRP field activities, either as local counterparts, overseas technical assistants, or attachment trainees. Other IFRP training activities have included the 1991 Trochus Resource Assessment Workshop and attachments to the IFRP at SPC headquarters in Noumea.

12 Project activities carried out between 1 July 1991 and 30 June 1992 are described in more detail below. Likely future directions and, where known, specific future activities are also described.

2.2 National-level activities

13 A principal objective of the IFRP is to provide support to SPC member countries in planning, executing and reporting on projects aimed at gathering and interpreting information needed for the effective management of fishery resources. Six projects of this nature were undertaken during the period under discussion, as shown in Table 1 below. A further two assignments were planned to take place during the period, but have been postponed for reasons beyond the control of project staff.

Table 1: IFRP field assignments for the period July 1991 to June 1992

Country Dates Scientist/Consultant	Primary objectives	Activities
Palau July 1991 Robert Johannes, Consultant	Provide comparative assessment of changes in Palauan inshore fishery and identify marine resource management requirements.	Make observations on fishing grounds and gather anecdotal information from fishermen regarding changes in the fishery over past 10-15 years. Advise government marine resources and legal staff on management of the fishery.
Federated States of Micronesia August-September 1991 Paul Dalzell	Analysis of catch and length frequency data from MMA/OFCF survey of demersal resources of Chuuk Outer Banks and seamounts.	Two week visit to Pohnpei to work with MMA biologist and assistant in completing analyses and drafting report.
Palau September 1991 Paul Dalzell	Analysis of length frequency and catch data from Palau's coral reef fisheries.	Two week visit to Palau to work with MRD biologist in analysis of data and drafting preliminary report.
Marshall Islands April 1992 Julian Dashwood	Follow-up technical advice on establishment of pilot pearl oyster farm.	One week visit to Namdrik atoll to harvest juvenile pearl oysters from spat collectors set during previous visit.
Papua New Guinea April 1992 Paul Dalzell	Assist PNG DFMR staff in data analysis and report production for past and ongoing research.	Visits to Wewak and Kavieng fisheries laboratories to assist local staff in data interpretation, report planning and production.
Kiribati May-June 1992 Garry Preston	Assist Kiribati Fisheries Division with a survey of pearl shell resources in the Gilbert Islands.	Field visits to Butaritari and Abaiang Atolls to assess stocks of pearl oysters. Deployment of spat collectors to initiate spatfall study.
Solomon Islands June-July 1992 Timothy Adams	Assist Solomon Islands Fisheries Division with a survey of commercial invertebrate resources in Western Province.	Field visit to Western Province to assess stocks of key exploited invertebrate resources and recommend management approaches for provincial government.

2.2.1 Palau: Development of inshore fishery management plan.

14 Historical information on production from Palau's inshore fisheries is scarce, and there are no reliable statistics on landings or catch-per-unit-effort which can be used to assess changes that may have occurred in the fishery. In attempting to develop a management plan for Palau's inshore fisheries, the Division of Marine Resources (DMR) nevertheless wished to determine the changes that may have occurred in local inshore fisheries during the past 15 years, and in particular to identify those areas in special need of management attention.

15 Following an official request to the Commission, Dr Robert Johannes of the Australian Commonwealth and Scientific Organisation, was engaged to make an advisory visit Palau in support of this work. Dr Johannes carried out an extensive programme of interviews with local fishermen to seek their views on the current exploitation and management of Palau's fisheries. Based on this information, Dr Johannes made recommendations as to legislative and extension-based approaches to management in the future, and these are now being followed up by the Palau DMR.

16 Dr Johannes' consultancy was financed by UNDP funds allocated to SPC.

2.2.2 Federated States of Micronesia: Analysis of data from survey of demersal fisheries resources.

17 The Overseas Fishery Cooperation Foundation of Japan (OFCF) conducted a survey of the outer banks and seamounts of Chuuk State in the FSM between November 1989 and February 1991 at the request of the Micronesian Maritime Authority (MMA). The IFRP was asked by MMA to provide assistance with the summary and interpretation of the data generated by the survey.

18 A preliminary examination of this data was undertaken by IFS Paul Dalzell during an initial visit to Pohnpei in 1990. The entire data set was analysed by IFS and the MMA biologist during a follow-up visit in August 1991. A report was submitted to the FSM Government on the demersal resources of the Chuuk Outer Banks and prospects for development.

2.2.3 Palau: Analysis of catch and length frequency data from Palau's coral reef fisheries.

19 During 1989, an evaluation of the data needs for management of Palau's inshore fisheries resources was made by the then SIFS Garry Preston. Included in the recommendations was the establishment of a regular collection by the Palau Marine Resources Division (MRD) of length frequency data from landings of reef fish caught by commercial fishermen. Following the collection of length data for one year, the IFRP was asked to provide assistance with the interpretation and analysis of this data. During September 1991, IFS Paul Dalzell made a two week visit to Palau to work with the Palau MRD biologist on this task.

20 The initial objectives of this visit were expanded to incorporate inclusion of historical length frequency data, records of commercial landings and yield estimates for the reefs and lagoons of Palau. Recommendations were drafted in a report to the Palau Government on further data collection requirements, suggested mesh size regulations and catch limitation of certain species.

2.2.4 Marshall Islands: Development of pilot pearl oyster farm on Namdrik atoll

21 In November/ December 1990, IFRP consultant Julian Dashwood visited Namdrik atoll to provide technical advice and assistance in the establishment of a pilot pearl farm. Natural stocks of pearl shell were surveyed and spat collectors deployed throughout the lagoon. Following information received from the Marshall Islands Marine Resources Authority that pearl oyster spat had been observed on the collectors, Mr Dashwood, now SPC Fisheries Coordinator, returned to the atoll in April 1992 to provide further technical advice.

22 Pearl oyster spat were harvested from the collectors deployed 16 months earlier. The inability of project workers to distinguish juvenile pearl oyster spat from other juvenile shellfish contributed to the delay in harvesting. Instruction and advice was given in the identification of juvenile pearl oysters, and in several areas of pearl oyster husbandry. Depending on their size, the juvenile shell were either drilled and hung directly on subsurface longlines, or placed in nursery baskets.

23 A clear need was identified for the project leader on Namdrik to receive practical training in pearl farm management. Arrangements are being made for this person to undertake 2-3 weeks attachment training with a pearl farmer in Manihiki, Cook Islands.

2.2.5 Papua New Guinea: Fishery data analysis and report publication.

24 The IFRP has an ongoing programme of assistance to the PNG Department of Fisheries & Marine Resources (DFMR) in supporting the production of technical reports by departmental fisheries biologists. During 1990 a visit was made to the Kavieng Fisheries Laboratory that resulted in the completion of five technical reports. During the same visit, a follow up assignment to the Wewak Fisheries Laboratory was planned to allow similar assistance to be provided to staff at that location.

25 This visit took place in April 1992, during which time the IFS worked together with the DFMR biologist in Wewak to complete three reports. A further visit was made to Kavieng to advise on a planned annual report for the Research and Surveys Branch, and to complete the production of a report on a fishery resource survey for Manus Province. A future visit is planned to assist the fisheries biologist in Daru with the completion of reports generated from research activities in Western Province.

2.2.6 Kiribati: Survey of the pearl oyster resources of Abaiang and Butaritari Atolls.

26 The Kiribati Government places a high priority on investigating the feasibility of developing pearl culture activities in suitable atolls within the country. A programme of surveys of existing natural pearl oyster stocks in selected lagoons is under way as the first step towards this aim. As part of this work, the IFRP in 1989 provided support to a survey of pearl shell stocks in Kiritimati (Christmas Island).

27 During April/ May 1992, further assistance was provided in surveying pearl shell stocks in the atolls of Abaiang and Butaritari, in the Gilberts group. SIFS Garry Preston spent 5 weeks in Kiribati assisting with field survey work and the deployment of spat collectors so that spatfalls can be monitored by Fisheries Division staff during the coming year. A report on the results of the survey work, directions for ongoing monitoring, and recommendations for the development of a pearl culture industry in the future, were submitted after completion of the field work.

2.2.7 Solomon Islands: Survey of the invertebrate resources of Western Province

28 The Provincial Government is charged with the responsibility of developing and managing marine resources in Solomon Islands' Western Province. An initial approach was made to the IFRP by the Province's Legal Department following numerous requests from overseas businessmen for licenses to exploit inshore resources, especially of trochus and beche-de-mer. The Commission was asked to provide advice to the Provincial Government on procedures for approving business licenses and on potential regulatory or other management requirements in these fisheries.

29 Following extensive literature research and consultations with the Provincial and National Governments, a field survey programme was initiated in order to obtain up-to-date information on the distribution and abundance of key resources in the area. The field survey was still under way at the time of writing. Once survey work is completed, a report will be submitted to the relevant authorities in Solomon Islands. Assistance will also be provided to the Provincial Government in the preparation of public information on marine resources that can be distributed to foreign businessmen and used during extension visits to coastal villages.

2.3 Regional-level activities

2.3.1 IFRP/ SPRADP Reef Reseeding Project

30 Field activity in this area was limited to monitoring the results of the release of juvenile trochus made during the Workshop on Trochus Resource Assessment, Development and Management held in Vanuatu in May/ June 1991. SIFS Garry Preston made two visits to Vanuatu during the last year and worked with Vanuatu Fisheries Department staff to re-survey the release site and measure all the tagged trochus recovered. Additional surveys have been carried out from time to time by the Fisheries Division, and a final survey will take place in July 1992. The data gathered will then be studied using length-frequency analysis and multiple-recapture techniques in order to obtain estimates of growth and survival of the released animals. Following analysis of the data, a decision will be made as to whether further experimental releases should be carried out.

31 Liaison was maintained with the South Pacific Regional Aquaculture Development Project during the year, but no further field activities were executed. This was partly due to heavy commitments by the IFRP, and partly to the uncertainties surrounding continued funding of the SPRADP. This latter issue now appears to have been resolved and the Commission looks forward to a renewed phase of joint activity in the study of appropriate resource enhancement techniques through programmes of juvenile release.

2.3.2 *Analysis of SPC Bottom Fishing Data*

32 The final report of this project has been submitted to SPC's publications department and will be printed and distributed shortly. The document contains a detailed analysis of bottom fishing data collected by the SPC Master Fishermen during the period 1975-1988, as well as summaries of the results of all SPC deep-bottom fishing assignments to SPC member countries during this period. This activity is now completed.

2.3.3 *Ciguatera research*

33 Following the endorsement of the 22nd RTMF, the IFRP, in conjunction with the SPC Health Programme, initiated the establishment of a regional data base on ciguatera and allied ichthyotoxicity. Unlike earlier SPC efforts in this field, data gathering includes attempts to identify the specific causes of the intoxication, including type of seafood, preparation, and associated reef disturbance. About 100 case histories of intoxication in SPC member countries were reported to the Commission during 1991/92, bringing the total number of case histories to over 250, from six countries in the region. Collection of case histories will continue and greater emphasis will be given to better publicity of the database outside of the Fisheries Programme publications. As the database grows, we anticipate that regional trends in the causes of ciguatera will become apparent.

34 During May 1992, the IVth International Congress on Ciguatera was held in Papeete, bringing together researchers in various scientific disciplines, including health and fisheries, to discuss recent advances in ciguatera research. IFS Paul Dalzell served on the Organising Committee for the meeting, as well as presenting a paper on the impact of ciguatera on fisheries development in the South Pacific. Following official requests from the governments of Federated States of Micronesia and Solomon Islands, the Commission, through the IFRP, also supported attendance to the meeting of participants from those countries. Both participants presented papers on ciguatera-related issues in their home countries.

2.3.4 *Development of remote sensing applications for inshore fishery resource assessment*

35 There has been a steady increase in interest in recent years in the use of remote sensing (RS) and digital image processing (IP) techniques for marine resource assessment, especially in the case of inshore and shallow-water reef and lagoon resources. Remote sensing, including satellite imagery and aerial photography, offers possibilities for data gathering that are not available through other means. Image analysis provides the means to use remotely sensed data in order to make rapid assessments of the physical extent of various types of marine habitat types, information which is essential when making standing stock estimates from abundance surveys, and for other purposes.

36 The IFRP has become increasingly involved in using RS/IP techniques in its work. Aerial photography is used whenever possible in field survey work. Satellite images have been used in connection with two national projects (Palmerston survey, Tonga beche-de-mer survey) and will be used in forthcoming projects in Palau and the Cook Islands. One of the recommendations arising from the Workshop on Trochus Resource Assessment, Development and Management held in Vanuatu in May/ June 1991 was for the Commission to assist Pacific Island countries in applying RS/IP technology and techniques to survey work on trochus and other marine resources, especially benthic invertebrates. The 23rd SPC Regional Technical Meeting on Fisheries in August 1991 recommended that the Commission follow up on an offer by French Polynesia to adapt its Sigma Poe Rava GIS system (for assessment and management of lagoon resources) to use in other Pacific Island countries.

37 During 1990/1991, Senior Inshore Fisheries Scientist Garry Preston was heavily involved in the development of a proposal for SPC to install an in-house image-processing facility and to improve its information management through the use of a geographical information system (GIS), as well as possibly assuming a regional coordinating role in this technical area. The proposal was approved by the 16th Meeting of the SPC Committee of Representatives of Governments and Administrations in May 1992. The CRGA directed the Commission to proceed with the establishment of the image-processing facility, whose principal focus for the first year of operation will be inshore marine resources. As the facility becomes better established it will gradually expand its services to other parts of the Commission and, ultimately, will evolve into a larger RS/GIS technical and advisory service addressing the needs of the region.

38 In response to this recommendation, the Commission is now in the process of finalising funding arrangements to permit the installation of a small image processing facility (computer hardware and software) which can be used to support both SPC and national marine resource survey efforts by providing basic image processing services and training. This development will require a substantial commitment of time by IFRP staff.

2.3.5 *Other activities*

39 IFRP staff were involved in the development of a number of regional activities to be carried out by other organisations. In particular, SIFS Garry Preston was asked to participate in a mid-term review of a regional ACIAR project entitled "Development of an underwater visual census method for assessing shallow water reef fish stocks in the South Pacific". He was also responsible for SPC inputs into a regional ACIAR project proposal to promote the development of pearl oyster culture activities in the region. This will be considered for ACIAR financing late in 1992. Finally, Mr Preston participated in the AIDAB/ICLARM "Workshop on the Management of Coral Reef Resource Systems", which aimed to provide guidance to ICLARM and Australian marine research institutions in planning future coral reef research.

2.4 Publications

40 Draft reports of all country-specific activities have been forwarded to Fisheries Departments and other relevant bodies of the countries concerned, usually within two months of the completion of the field work. (Copies of all non-confidential IFRP reports are available from the Secretariat). In most cases these will ultimately be published as IFRP technical documents or in other forms.

41 An occasional technical paper series has been established in which fisheries reports from the region can be published. These will take the form of collections of between six and ten papers published together as intermittent issues of the IFRP Technical Document series.

42 The first issue, which consists mainly of selected papers from the 1988 Workshop on Pacific Inshore Fishery Resources, has been submitted to the SPC Publications Department and should be printed and distributed in time for the present meeting. The second issue, which consists mainly of recent contributions by regional fisheries workers, is presently in preparation.

43 It is anticipated that the series will come to rely more and more on contributions by fisheries workers in the region. These will be encouraged by correspondence and during duty travel by project staff, who will provide in-country editorial assistance and advice when required.

2.5 Future Plans

44 Two assignments are firmly planned for the second half of 1992. These are:

Establishment of a coastal fisheries data collection and monitoring programme in Nauru

45 The Department of Island Development and Industry has requested assistance from the SPC Fisheries Programme in establishing a monitoring system on Nauru to record catches of inshore and coastal fishes from the reefs and adjacent waters, and from around three FADs that have been deployed with the assistance of the Deep Sea Fisheries Development Project. It is anticipated that experiences recording catches from newly deployed FADs in Nauru can be extended to other Pacific Islands to allow monitoring of the impact of FADs on coastal fisheries.

Study of the trochus fishery on Aitutaki, Cook Islands

46 This activity was suggested by the Workshop on Trochus Resource Assessment, Development and Management held in Vanuatu in May/ June 1991, and recommended by the 23rd SPC Regional Technical Meeting on Fisheries in August 1991. A detailed study will be undertaken in conjunction with the next trochus harvest on the island, and will provide information applicable to the management of trochus resources in all countries of the region. The study will involve a team of 8 scientists, 4 of whom will be selected from Pacific Island countries other than the Cook Islands, who will travel to Aitutaki for approximately one month to undertake detailed survey and catch monitoring work alongside staff of the Cook Islands Ministry of Marine Resources and SPC. The costs of the survey work are being financed by the Australian Centre for International Agricultural Research (ACIAR).

47 Informal requests from and ongoing dialogue with member countries indicate that IFRP activities in the coming year are likely to include:

- Survey work for trochus, beche-de-mer and pearl oysters;
- Continued development of remote sensing and GIS applications for marine resource assessment;
- Support in the preparation of technical documents;
- Support to the strengthening of national catch monitoring and fishery data gathering systems.

48 The project will also continue to develop regional initiatives in response to the expressed needs of SPC member countries, and to respond to specific country requests for assistance as they are received.

49 The present IFRP funding cycle will terminate in at the end of March 1993. To maintain project activities, it will be necessary to identify further funding for the project beyond this time. In order to assess future country needs in this area, and the manner in which SPC should respond to them, a review of the project will be commissioned in the second half of 1992. As a part of the review process, all SPC member countries will be consulted as to their views on the the future of the project and its relationship with the research activities of other organisations operating in the region.

3 FISHERIES INFORMATION PROJECT

3.1 General

50 The SPC Fisheries Information Project (FIP) is funded by the Government of France and became operational in April 1989 with the appointment of Jean-Paul Gaudechoux to the position of Fisheries Information Officer (FIO). The FIO provides information, both routinely and on request, to assist fisheries scientists, development officers, extension agents, planners, managers and others involved in developing and managing fisheries at national, regional and international levels. Many such individuals work in remote locations with poor communications and inadequate access to advice and information on technical fisheries-related topics. The SPC has established this project with the goal of improving its capacity to process and disseminate information. The project is closely linked to the Inshore Fisheries Research Project and operates under the technical supervision of the Senior Inshore Fisheries Scientist.

51 The FIP was developed at the same time as the inter-agency Pacific Island Marine Resources Information System (PIMRIS) project, and is one of the mechanisms through which SPC participates in PIMRIS.

3.2 National-level activities

3.2.1 Training attachments

52 At the request of the Fiji Government, Senior Fisheries Assistant Hamidan Bibi from the Fiji Fisheries Division undertook a 7-week training attachment to the project in 1992. She was involved in all stages of the preparation and the production of the SPC Fisheries Newsletter (June 1992 issue) and the first Trochus Information Bulletin. This task has involved research, writing, editing and technical aspects of production and distribution. In addition, Ms Bibi spent short periods of time with the library, registry and publications department, so as to allow familiarisation with all aspects of researching and producing an information publication.

3.3 Regional-level activities

3.3.1 Special Interest Groups

53 A major activity has been the establishment of Special Interest Groups (SIGs) on fishery related topics of interest to regional fishery workers. The SIGs were developed as a result of the SPC Workshop on Pacific Inshore Fishery Resources (IFRW), held in March 1988, and where participants expressed concern about the absence of mechanisms to promote contact and information exchange among regional fishery workers. In establishing the SIG's, the most important areas of interest in the region were determined by canvassing regional fishery workers using a questionnaire. More than 350 responses to the questionnaire have been received to date, 80% from within the SPC region, and returns are continuing.

54 The aim of the SIGs is to serve as an information and communication network for fishery workers with similar professional interests and concerns. As part of the support offered to each SIG, the Commission undertakes to circulate literature, technical information and correspondence relevant to the interests of group members. This is mainly in the form of an information bulletin for each SIG, issued on an occasional basis (approximately twice a year), and which contains technical information summaries presented in plain language, bibliographic listings, and contact information for other group members. In return, group members are strongly encouraged to provide information on their work and to forward copies of useful reference or technical material so that it can be made available to other group members.

55 Five SIGs, on beche-de-mer, pearl oysters, ciguatera, trochus, and customary marine tenure, have been established. Four information bulletins have been issued on beche-de-mer, four on pearl oysters, two on ciguatera, one on trochus, and one on traditional marine tenure, management and knowledge.

56 An important aspect of the SIGs is that for each group, an external specialist agrees to act as technical coordinator or editor and oversee the technical quality of the material included in the bulletin. Technical coordinators are selected based on their regional experience combined with expertise on the subject in question. Using technical coordinators in this way ensures that the standard of the information circulated is maintained at a high level and is relevant to the needs of the region.

3.3.2 Fisheries Newsletter

57 Responsibility for producing the quarterly SPC Fisheries Newsletter now lies with the Fisheries Information Officer. The long-standing backlog in producing and distributing this publication was cleared at the end of 1990 and production is now maintained on a timely basis, in both English and French. The Newsletter, which aims to provide news on regional developments in fisheries, and technical information on aspects of the harvest and post-harvest fishery sectors, is distributed widely within the region (600 addresses on mailing list).

58 During 1991, the FIO established a computerised database of all articles and useful information published in the Fisheries Newsletter and the various SIG information bulletins since their inception. More than 3,000 records will have been entered into the database by the end of this year, at which time it will be made available to regional users.

3.3.3 Information requests

59 Responding to information requests is a routine activity of the SPC Fisheries Programme, and is coordinated by the FIP. Under normal circumstances, a request is discussed among SPC Fisheries staff members with technical knowledge of the subject area, and either a listing of useful literature/ information sources, or specific technical advice, or both, are prepared. This may be supplemented using bibliographic searches conducted through the SPC library on internal or external databases. In some cases, where information obtained through these sources is inadequate to address the needs of the request, further assistance may be sought from other PIMRIS nodes or from elsewhere.

60 The frequency of information requests from regional fisheries workers has been increasing over the past three years. This trend seems to be a response to the increased emphasis placed on fisheries information by SPC and other PIMRIS participating agencies, and a resulting increased awareness on the part of regional fishery workers about the sorts of services that are available. The trend is expected to continue in the coming year.

3.4 Future plans

61 1990 has seen an increase in the awareness of, and demand for, SPC's information services in the fisheries sector. The Fisheries Information Project will continue its present activity, hopefully at an expanded level, in order to meet this need. In particular, efforts will be made to gradually increase the number of SIGs. The establishment of two more SIGs has been decided, on fisheries education and training, and fish aggregation devices.

62 It was also decided last year to update the SPC publication **Fisheries Directory of the South Pacific Commission Region**, with the aim of presenting the status of fisheries in each country and territory of the region as an aid to reviewing fisheries progress and identifying development needs. This task was originally scheduled to begin in early 1992 but because of the pressure of other work will not now commence until later in the year.

63 The level of future work will however be constrained unless additional extra-budgetary funding can be located to support SPC's fisheries information activities. If the Commission is to fully meet its commitments to PIMRIS or to respond to greatly increased demands for fisheries-related information services, further funding, above and beyond that being generously provided by the Government of France, will need to be identified. The Commission will continue to discuss means of resolving these problems with agencies interested in funding information-related projects.

4 DEEP SEA FISHERIES DEVELOPMENT PROJECT

4.1 General

64 The Deep Sea Fisheries Development Project (DSFDP) continued to support small-scale fisheries development activities in the region during 1991/92. The project's overall goal is to provide specialist advice, technical assistance, demonstration and training in conjunction with national efforts to promote economic development based on marine resource harvesting. The project focusses especially on deep-water, offshore or non-traditional resources in order not to promote economic development at the expense of subsistence fishermen.

65 Project staff during the period of review were Peter Cusack (FDO), Paxton Wellington, Tuainetai Rata and Peter Watt (MF), and Marie-Ange Bao (PA). The fourth MF position, which requires extra-budgetary funding support that is presently unavailable, was vacant.

66 Since its inception in 1978, the bulk of the DSFD project has been funded from SPC core budget allocations, which cover the costs of the Fisheries Development Officer (FDO) and three Master Fishermen (MF). However, the May 1992 CRGA approved a substantial reduction in these allocations as of 1993 (at which time the core budget will support only the Fisheries Development Officer and one Master Fisherman), and total removal of the project from the core budget as of 1994. This is of course a matter of serious concern to the Coastal Fisheries Programme and will of course have a major impact on the ability of the project to continue delivering services at the same level, if at all.

67 In addition to the core budget contributions, the project has benefitted from extra-budgetary funding support. A fourth MF position, consultancy costs, and some support costs, were provided under a three-year funding agreement with USAID for a Gear Development Sub-project, which terminated in December 1991. UNDP has recently approved in principle a funding proposal aimed at offshore fisheries development and which will cover the costs of a FAD specialist, 6 man-months of consultancy work per year, and administrative support, for the next four years. However, in the light of recently approved core budget cuts, the relationship between this extra-budgetary sub-project and the reduced DSFDP Project will need to be re-examined. This is discussed in more depth in WP 4.

68 DSFDP Masterfishermen have conducted 72 national field assignments since the inception of the project in 1978, as well as numerous smaller assignments, training and demonstration programmes at various levels, and information gathering and dissemination activities. As well as field assignments at national level, recent initiatives have included a major review of Pacific island fish aggregation device (FAD) programmes.

4.2 National-level activities

69 A major function of the DSFDP is to provide practical support and technical assistance to small-scale fishery development activities in SPC member countries. Five assignments of this nature were carried out in 1991/92, as shown in Table 2.

Table 2. DSFD Project field activities for the period July 1991 to June 1992.

Country Dates Project staff	Request	Summary of Activities
Nauru Oct 91 P. Wellington	Rig and deploy FADs.	Confirm previous site survey. Rig and deploy three FADs, training in FAD skills.
Tonga Oct 91 - June 92 T. Rata	Develop flying fish fishery in Vava'u and Ha'apai.	Demonstration and training in scoop-netting for fishermen. Assist fishermen rig boats and gear.
Palau Oct 91 (ongoing) P. Watt	Develop FAD-based tuna fishing techniques and gear.	Survey further FAD sites. Investigate baitfish resource. Develop and demonstrate longlining gear suited to local vessels. Conduct fishing trials.
Papua New Guinea Nov 91 P. Cusack	Follow-up to national FAD programme planning assistance. Assist formulation of longlining project.	Advise on site selection and material procurement for FAD programme. Assist preparation of technical/funding dossier for pilot longlining project in New Guinea Islands Region.
Vanuatu Nov 91 (ongoing) P. Wellington	Initiate national FAD programme.	Needs assessment, site survey, deployment of shallow and deep-water FADs. Training.

4.2.1 Nauru - FAD rigging and deployment

70 A survey of FAD sites and the construction of four FAD rafts (three of steel and one incorporating an imported patent foam hull) to SPC design were completed during Phase I of this project, which commenced in May 1990. Following the delivery to Nauru of requisite mooring lines and hardware, MF Paxton Wellington returned to supervise the calculation, rigging and deployment of the FADs in October 1991. A Global Positioning System navigation unit was used to plot the selected FAD sites with great accuracy prior to preparing the moorings. With the assistance of the Nauru Phosphate Corporation staff and facilities, and the participation of the Department of Island Development and Industry (DIDI) staff, three FADs were successfully deployed, using "anchors" made of lengths of 75 mm diameter surplus chain. The fourth FAD raft will be kept in reserve. All three FADs have since been reported to be successfully aggregating fish, and to have become the focus of most local offshore fishing effort.

71 In conjunction with this programme, assistance will be provided to DIDI in designing a FAD-catch monitoring programme during a forthcoming IFRP assignment to Nauru (see section 2.5)

4.2.2 *Tonga: Flying fish scoop-netting demonstration and training in Vava'u and Ha'apai.*

72 At the request of the Tonga Ministry of Fisheries, MF Tuainetai Rata was assigned to work with the Vava'u and Ha'apai Fisheries Divisions in introducing the technique of flying fish scooping to local fishermen. Twenty-nine fishermen and fisheries officers participated in the demonstration and training programmes, during which an average catch of 120 pieces per nighttime fishing trip was recorded. This demonstration of at least a seasonally significant resource of flying fish in the two areas generated a good deal of interest among local fishermen, particularly as a source of effective trolling bait. It was apparent, however, that the typical wooden skiff in local use was not well-suited to the scoop-netting technique, nor were the materials to rig battery or generator-powered lights readily available locally. It was recommended that if the fishery is to develop, the Ministry of Fisheries should attempt to make the requisite gear available to fishermen and should construct a prototype, purpose-built scoop-netting boat along the lines of the Tahitian *poti marara*.

4.2.3 *Palau - FAD-based offshore tuna fishery development.*

73 In late 1991 Palau's Marine Resources Division (MRD) deployed a series of five FADs to the east of Palau's main reef system as part of an attempt to develop a domestic medium-scale sashimi tuna fishery. MRD also sought the assistance of the DSFDP in developing gear and techniques which would enable local craft to target the large deep-swimming tunas known to commonly associate with FADs. MF Peter Watt, who had recently undertaken a similar, highly successful project in Western Samoa, was assigned to this task.

74 At the outset of the project, well before the reputed onset of the local tuna season, project activity focussed on designing and building a wooden hand-hauling drum to set vertical longline gear, and on investigating local baitfish resources. A number of moderately productive baitfish grounds were identified and various fishing techniques experimented with. Jigging at night produced generally small catches of bigeye scad (*Selar crumenophthalmus*), while small sardines were taken in large numbers by gill-netting. Baitfish catches were stockpiled for the vertical longline tuna fishing trials which commenced soon after.

75 Once the trials commenced, it soon became apparent that the FADs had not then aggregated even small tunas in any abundance. It was not clear, however, whether the absence of tuna at the FADs could be attributed to seasonality, the closeness of the FADs to the reef system, or other factors. Soon afterwards the FAD moorings began to fail, and by June four of the five units deployed in 1991 had drifted off station. Some of these fouled on the outer reefs, enabling sections of mooring and the rafts to be recovered. The focus of the project was subsequently shifted to attempting to determine the cause of these failures and to re-establishing a FAD system. An exhaustive series of new site surveys was conducted and a revised deployment strategy arrived at. Two new units were deployed well offshore from the western reef, and quickly aggregated large numbers of small tuna vulnerable to trolling. A local pole-and-line boat took 4 tonnes of mixed yellowfin and skipjack over two days fishing at one of the new FADs. As of June, however, vertical longline sets had still produced only sharks.

76 Five further FAD deployments are planned in the near future; one of these will be based on the pressure-float raft design presently under development trials by the DSFDP, and the others will incorporate a patent monofilament nylon main mooring system recently developed in the USA.

4.2.4 Papua New Guinea - Pilot FAD deployment

77 PNG's waters are known to be scattered with hundreds of *payaos* set by foreign fishing companies, as well as traditional rafts and traps set in shallow inshore waters in some areas. However, there has been no programme to provide subsistence or small-scale commercial fishermen with deep-water offshore FADs.

78 Following a request by PNG's Department of Fisheries and Marine Resources (DFMR), FDO Peter Cusack visited several sites in PNG to assist national and provincial fisheries managers assess the potential for establishing a FAD programme. At the FDO's recommendation it was decided to undertake a pilot FAD deployment in the vicinity of Daugo Island near Port Moreseby, the centre of an important small-scale commercial pelagic and demersal fishery. Subsequently, with the active cooperation of the PNG Fishing Industry Association, DFMR contracted the fabrication of a steel FAD raft to SPC design and landed requisite mooring materials.

79 The next phase of this project will take place in the near future when a consultant MF will conduct an echo-sounding survey of potential sites, and supervise the calculation, rigging and eventual deployment of the FAD. The consultant, who commenced work at the end of June just as this report was being finalised, will also travel to Rabaul at the invitation of the East New Britain Provincial Government to inspect shore infrastructure and the fishing vessel *M.V. Kuriap* in connection with a request for DSFDP assistance in the development of a local longline fishery.

4.2.5 Vanuatu - National FAD programme planning and implementation.

80 The Vanuatu government has commenced a national, European Community-funded, programme of FAD deployments, which last year saw its first FAD deployed in deep water off Port Vila. Other FAD deployments are planned in inshore and offshore areas throughout the archipelago. A long-term commitment on the part of the DSFDP to lend technical assistance in the planning and implementation of the programme led to the assignment of MF Paxton Wellington to work with the Vanuatu Fisheries Department from the Fisheries Training Centre at Luganville on Espiritu Santo.

81 As well as providing technical oversight of FAD deployments and the conduct of fishing trials and demonstrations, Wellington's work programme includes assessing village fishing community capacities and needs, and surveying potential FAD sites to determine the rational allocation of FAD resources. Four FADs have been deployed to date, three of which are shallow-water inshore units set within range of the small-boat fishing communities in the Tangoa Island area, and designed to aggregate small pelagic species. The fourth is a deep-water unit incorporating an experimental raft made up of pressure-resistant floats set further offshore.

82 The aggregation of fish to these FADs and the communities' inclination and ability to exploit them is being monitored to determine the type, number and distribution of future deployments in Espiritu Santo and elsewhere in the archipelago. This work is being assisted by a collaborative study of the aggregation process and aspects of the social and economic impact of the FADs being undertaken by the Marine Resource Assessment Group of the University College of London. Trials have also begun with a fish trap of split bamboo suspended under one of the FADs. This is modelled on a traditional design used with success in parts of PNG to capture small pelagic species.

4.2.6 *Advisory services*

83 In addition to field assignments, the Project continued to provide advisory services on technical fishery issues in response to national request. This service, provided chiefly by the FDO from SPC headquarters and during consultative visits, includes advice on fishing technique and gear developments, sources of gear and equipment supply, technical aspects of FAD raft and mooring design and sources of FAD material supply, and provision of catch and resource assessment data gathered during field assignments.

84 Major tasks undertaken by the FDO recently have been: site visits to assess and make recommendations regarding the potential for the use of artisanal FADs in Papua New Guinea (East New Britain and Madang Provinces, and the National Capital District); provision of technical advice to the East New Britain Provincial Government and New Guinea Islands Region Secretariat in the drafting of a proposal to undertake a pilot tuna longlining project; consultative visits to the Northern Mariana Islands and Fiji to advise on proposed FAD and tuna longlining programmes; technical assistance and material procurement advice to the Territories of New Caledonia and Wallis and Futuna in their respective FAD programmes; and site visits to monitor DSFDP assistance to projects in Palau and Vanuatu.

4.3 *Regional-level activities*

4.3.1 *FAD research and development*

85 The DSFDP continued to monitor regional and worldwide developments in FAD technology and use. In recent times this has included information exchanges with FAD specialists in the Indian Ocean and Philippine fishing industries, and extensive consultations with Pacific-rim FAD material suppliers. Much of the focus of this has been on the technical aspects of FAD engineering, FAD fishing techniques and gear, and field trials with innovative raft and mooring materials and designs. However, a beginning has also been made in addressing the social and economic implications of FAD programme initiation, including such aspects as cost-effectiveness, user-conflict, FAD dependence, and the impact on markets of FAD catches. The first aim of this work is to support and encourage the wide establishment of national FAD use and catch monitoring programmes. Field work toward this end has been undertaken in Nauru with the cooperation of Inshore Fisheries Programme staff, and is on-going in Vanuatu in collaboration with the MRAG research project described in section 4.2.5.

86 Considerable effort has been devoted to the development of a project proposal for consideration under UNDP's 1992 - 1996 Regional Programme for the Pacific. The proposal seeks funding for the proposed Offshore Fisheries Development (OFD) Sub-project, which is intended to increase the capacity of the DSFPD to provide technical and training assistance to member-countries in the establishment and maintenance of FAD programmes and the development of small-scale offshore fisheries, particularly for tuna. The way in which the DSFPD relates to the OFD project and other small-scale fishery development activities are discussed in more detail in WP 4.

4.3.2 *Training activities*

87 Apart from the practical, informal training which is a consistent feature of DSFPD field work, Project Masterfisherman Paxton Wellington undertook two formal training assignments in the course of his work in Vanuatu. In June, Wellington served as a tutor/boat skipper during the Practical Module of the Pacific Island Fisheries Officer's Training Course which is run jointly each year by the Commission and the Nelson Polytechnic (New Zealand) School of Fishing (see section 6.3.1). Also in June, under a programme coordinated by the RFTP, an officer from the Cook Islands Ministry of Marine Resources participated in the latter part of the course and then commenced a one-month period of attachment training with Wellington in navigation, seamanship, and FAD construction and deployment (see section 6.2.2).

4.4 **Publications**

88 While reports to governments on Project activities in the field were routinely provided in draft form at the completion of assignments, delays continue to be experienced in bringing such reports to the stage of formal publication and regional distribution. These delays remain a result of the heavy workload of the Fisheries Programme and the Commission's Publications Section.

89 Extended delay has also been experienced in the receipt of a final manuscript of a handbook on FADs, which is in preparation by an external consultant. The handbook is intended to be a comprehensive guide to the practical aspects of FAD site selection, survey, mooring and raft design, material selection and procurement, deployment, and maintenance. The delay has resulted partly from an attempt to incorporate new developments in FAD engineering and design into the handbook, and partly because of a decision to simplify the content and presentation of certain sections in response to critical review of the draft by fisheries officers within and outside the Commission. The Secretariat is taking all possible steps to ensure that outstanding work on the draft manuscript is completed as quickly as possible.

90 Recent further development work with vertical longlining techniques and gear, including important modifications to the hand-hauling drums developed during a current assignment in Palau, and a section on the use and fabrication of parachute sea-anchors, are presently being incorporated into the manuscript of a detailed technical manual on this fishing technique. Completion and publication of this document will be contingent on the availability of extra-budgetary funds.

4.5 Future plans

- 91 Three official requests for field assistance in 1992/ 93 are currently pending, as follows:

Technical assistance to pilot FAD deployment, Daugo Island, Papua New Guinea

- 92 As a follow-up of earlier work described in section 4.2.4, a consultant MF will be engaged for one month to supervise the site survey, construction and deployment of a deep-water FAD off Daugo Island, Papua New Guinea. This is expected to take place in July 1992.

Development of tuna longline fishery, East New Britain Province, Papua New Guinea

- 93 In response to a request from the Papua New Guinea government, it is expected that a staff MF will be assigned to work in Rabaul for at least 6 months, installing monofilament longline gear on board the Japanese grant-aid fishery research vessel *MV Kuriap*, carrying out survey fishing, demonstrating the viability of the longline fishing technique in the area, and training crew. The project is intended to encourage local investors to support the development of a small-scale fishery, and will be carried out as part of a larger provincial fishery industry development programme that is receiving financial support from major funding donors.

FAD deployments, Wallis Island

- 94 Technical assistance has been requested by Wallis and Futuna in supervising the site survey, construction and deployment of a series of deep-water FADs. Support has already been given in designing the FADs and in ordering the necessary gear and equipment, but manpower and funding constraints have so far made it impossible to assign a MF to complete this task. It is anticipated that a consultant MF will be engaged for a 2-3 week period during 1992 to complete the field work.

- 95 Informal requests and ongoing dialogue with member countries indicate that the DSFDP will continue to focus principally on FAD-associated small-scale fishery development work. In response to this interest, and to recommendations of past RTMFs, DSFDP staff will continue to keep abreast of developments in FAD technology and application regionally and worldwide and will seek to provide technical assistance and training in all aspects of member-countries' FAD programmes, with a view to promoting self-sufficiency.

- 96 In addition, the Project plans to undertake a related major initiative in seeking to promote and assist the development of medium-scale offshore fisheries in the region, particularly tuna fisheries. The aims and status of this programme are discussed in WP 4.

- 97 A decline in requests for work in connection with village-level near-shore deep-water snapper fishery development has been experienced over the past 3 years and this is expected to continue. Instead, more emphasis is expected to be placed on the fishing of unexploited bottom-stocks on offshore banks and seamounts, and experimental fishing on locally under-utilised resources like flying fish.

98 As noted earlier, the funding situation of the project is cause for concern, and under present circumstances there is a likelihood that at least some areas of project activity will have to be severely curtailed in 1993/94. The issue of funding is discussed in more depth in WP 4.

5 FISH HANDLING AND PROCESSING PROJECT

5.1 General

99 The Fish Handling and Processing Project (FHPP) was established within SPC's Fisheries Programme in 1986 and continues to provide technical assistance and advice to national initiatives to increase economic returns from fisheries through improved post-harvest practices. The Project's overall objectives are to increase the value of fisheries products, reduce losses in the post-harvest fisheries sector, enhance the income of fishermen, processors and traders, and reduce health problems associated with the consumption of improperly handled and preserved seafood. The demand for the services of the FHPP has grown substantially over the year and this is reflected in the number of requests presently being received or still to be undertaken.

100 Since May 1991 the FHPP has also included the Women's Fisheries Development sub-Project (WFDP), which aims to assist women from coastal fishing communities to participate more effectively in, and benefit from, fishery-related activities, particularly in the post-harvest fisheries sector. The WFDP was initiated in May 1991 in response to a growing interest on the part of a number of SPC member countries to enhance the participation of women in fisheries activities. The initial phase of the project has been directed towards providing assistance to the Women-in-Fisheries Support Project in Papua New Guinea.

101 The United Kingdom Government continues to fund the post-harvest fisheries component of the FHPP. A three year funding cycle came to an end in January 1992, but following a review of the Project by the British Development Division in the Pacific (BDDP), it was agreed that funding would be extended to January 1993. The WFDP is funded for a period of two years (May 1991 to May 1993) by the Canadian-South Pacific Ocean Development Project (CSPODP), which was administered through ICOD until that organisation closed early in 1992.

102 For most of the year the FHPP has operated with a professional staff complement of two: Steve Roberts, Post-harvest Fisheries Advisor (PFA) and Shirley Steele, Women's Fisheries Project Officer (WFPO). A Project Assistant (PA), Heather Jackson, has also been working part-time for the Project throughout this period.

103 WFPO Ms Steele left the Commission's service prematurely in May, creating a vacancy in the WFDP. As a result, some planned activities for 1992 have had to be curtailed. Funding constraints make it unlikely that the Commission will be able to fill this post on a full-time basis unless supplementary funds can be obtained. However, in so far as is possible the proposed programme of activities will continue, utilising consultants as and when appropriate.

5.2 National-level activities:

5.2.1 *Tokelau: Trial Tuna Processing and Marketing Project*

104 The FHPP continued to provide significant technical support to the trial tuna processing plant in Tokelau, which is well into its second year of operation producing dried marinated tuna. A visit was made by PFA to Tokelau in November 1991 to review the project after one full year in operation. A full economic appraisal was not possible at this stage due to the trial nature of the marketing work. However it was clear that staff at the processing facility (Kileva Fisheries) on Atafu were performing to the high standards of quality and hygiene imposed during training the previous year, and were making every effort to follow the correct processing and packaging procedures. Further technical advice was given to improve many of these activities.

105 A key weakness identified by PFA concerned the poor records that were being kept on the volumes of product processed, packaged and shipped to Apia. Because of this deficiency, it was not possible to accurately establish the volumes of fish landed, or work out processing yields or volumes of product manufactured and sent off island. The importance of keeping full records of the operation was emphasised and some additional training provided in this field.

106 The PFA has also helped design an attractive low cost packaging format for Tokelauan dried marinated tuna, which has been in use since September 1991, as well as providing logistical and technical support and advice for product marketing trials being carried out by the South Pacific Trade Office in Auckland. After mixed results at the beginning of the trials, a significant order that surpassed Tokelau's then production level was received at the end of 1991 from an Auckland-based company. The product has been on sale in the New Zealand produce shop at Auckland international airport since January 1992, where it is selling well, mainly to Japanese tourists. The same company has also undertaken promotional and marketing trials in Japan.

107 In the light of the generally positive signs for marketing Tokelauan marinated dried tuna it was recommended that the project continue for another year to confirm whether the demand for the product will be sufficient to turn the operation into a commercially viable enterprise.

108 Tokelau's Trial Tuna Processing and Marketing Project has provided ample information and guidance to the collaborative initiative on processing novel tuna products, being developed by SPC and the Australian Centre for International Agricultural Research (see section 5.3.5). Tokelau will benefit from this new initiative if funding is finally approved for the project.

5.2.2 *Tonga: Management structure, technical needs and marketing requirements of the Tu'imatamoana Fish Market*

109 Following a request from the Government of Tonga in September 1991, a brief visit was made to the Kingdom in November 1991. The request arose from the need to review the management and operational requirements of Tu'imatamoana Fish Market and Landing in Nuku'alofa now that control of the facilities has been transferred to the Ministry of Fisheries.

110 A report was provided to the Ministry of Fisheries giving advice and recommendations on the appropriate structure, training and manpower needs, and the technical and marketing requirements of the market. A number of options were proposed for improving fish handling and marketing procedures, including infrastructure modifications.

111 A further visit is planned for the second half of 1992 to provide advice on the management options for marketing fish throughout Tonga and to provide assistance to a planned in-country fresh fish handling workshop.

5.2.3 Papua New Guinea: Upgrading the fisheries inspection and quality assurance service

112 The Surveillance and Inspection Section of the Department of Fisheries and Marine Resources, PNG, has continued to seek assistance from the FHPP to organise a workshop for fish inspectors responsible for examining seafood products (frozen prawns, lobster, barramundi, dried beche-de-mer, etc.) exported from the country. The fisheries inspection service in PNG requires significant upgrading to safeguard the export trade in seafoods. Some modification to the request has been recommended in which the inspection service in PNG is reviewed by a technical specialist before proceeding into a training phase. A formal Government request on this basis is presently being processed.

113 In a partial response to this request Mr Miguel Gallo, a Peruvian technical expert on loan to the SPC from the Instituto Tecnológico Pesquero (ITP) (Institute of Fisheries Technology) in Lima, Peru, visited PNG in April 1992. He conducted a workshop on Packaging and Processing of Seafood Products which was mainly aimed at Fisheries Inspectors from the Surveillance and Inspection Section. Mr Gallo also evaluated training needs for the Section in connection opportunities for training in Latin America via the Trans-Pacific Fisheries Consultative Committee (see section 5.3.3).

5.2.4 New Caledonia: Fish retailers workshop (follow-up)

114 After providing assistance to the Southern Province Fisheries Department (SPFD) to organise and run a fish retailers workshop in March 1991, a review of the training and facilities at the new retail market provided by the Noumea town authorities was carried out by PFA in October 1991. The review concluded that the most conscientious participants of the workshop had made significant improvements to their selling techniques, and consequently were attracting more customers and selling greater volumes of seafood. However some of the other retailers who attended the workshop had largely ignored the advice and information provided and were operating at less than acceptable quality and hygiene standards. A number of recommendations were made on providing follow-up training and introducing regulations to improve hygiene procedures.

115 The report also pointed out many design features at the market that hinder hygienic and efficient retailing operation. The report presented to SPFD made a number of recommendations for improving conditions at the market, some of which would require infrastructural modifications.

5.2.5 Papua New Guinea: Women-in-Fisheries Support Project

116 Funding from CSPODP to promote the PNG Women-in-Fisheries Support Project was secured by SPC on behalf of PNG in early 1991. The project is managed through the Department of Fisheries and Marine Resources with assistance provided from the WFPO and PFA. The first activity of the project was the New Guinea Island (NGI) Region Women's Fish Processing and Marketing Workshop, which was held in Kavieng in September 1991. This workshop was similar to the earlier Papuan Region Women's Workshop, held in Port Moresby in September 1989.

117 The purpose of the NGI Workshop was to train women in new and improved techniques of small scale fish processing and marketing, and to encourage participants to develop and establish small income generating activities. Teaching duties at the Workshop were shared by staff of the National Fisheries College, DFMR and PFA. WFPO provided assistance to the national workshop coordinator and counterpart officer and worked with the participants and Fisheries Officers from four Papua New Guinea provinces in developing follow-up action plans for the women participants, to be carried out after the Workshop. The action plans were completed during the first quarter of 1992. WFDO also provided assistance in setting up a National Advisory Committee in PNG to help develop appropriate fisheries projects for women, and made visits to follow-up on the initiatives that arose from the 1989 Papuan Region Women's workshop.

118 Since these activities took place, DFMR have used their own staff resources to conduct a further workshop in Milne Bay in March 1992, and will hold a workshop for Momase region women later in the year, both funded through this project. DFMR have also secured bilateral funding from the Commonwealth Secretariat for a National Women-in-Fisheries Projects Coordinator. When recruited, this person will take over some of the tasks that have so far been carried out by WFPO.

5.2.7 Palau: Advisory services on Women in Fisheries

119 In 1991, the Palau Department of Marine Resources commissioned an external consultant to carry out a study on the role of women in fisheries in Palau. Following a government request, WFDO visited Palau to review the study and advise government departments and NGO's on the development of appropriate fisheries projects that would benefit women. A number of project outlines were developed and recommendations made for further action by local agencies.

5.3 Regional-level activities

5.3.1 Chilled fish sector training - stage I: Regional workshop

120 The FHPP ran its first regional post-harvest fisheries workshop, which covered a wide range of tropical fish handling and processing subjects, in Vanuatu in 1986. A further regional workshop, focussing on the chilled and frozen seafood sector and on extension and communication skills, was run during March and April 1992.

121 The 1992 workshop comprised the first stage of a joint chilled fish sector training project of the FHPP and the Regional Fisheries Training Project (RFTP) which is being funded by the Canadian Government through ICOD. The project is modelled on an earlier programme of extension training run by the RFTP which made effective use of a similar train-the-trainers approach.

122 The regional workshop was conducted in Suva at the University of the South Pacific between 16 March and 24 April. Sixteen participants from fourteen countries (American Samoa, Cook Islands, Federated States of Micronesia, Fiji, Guam, Kiribati, Marshall Islands, Nauru, Northern Mariana Islands, Papua New Guinea, Solomon Islands, Tonga, Tuvalu, Vanuatu) completed the six week training programme.

123 The workshop was divided into two key elements - a technical component lasting four weeks, followed by a two week extension and communications phase. Topics covered in the technical workshop included proper handling and storage of chilled and frozen fish (with sashimi tuna and deep water species as standards) for the domestic and export markets, seafood packaging, causes of fish spoilage, quality control, buildings, equipment and materials requirements, seafood microbiology, and hygiene and sanitation. The extension and communications workshop included principles of adult education, problem solving and decision making, programme planning, and working with groups. Tutors were drawn from a range of specialist institutes in Australia, Canada and Latin America, as well as from Pacific Island countries.

124 In preparation for the stage II programme of in-country training, course participants also designed a set of six posters and wrote up notes on six broad topics suitable for running workshops in their own countries, as well as drawing up action plans of their proposed activities in preparation for returning home. Stage II of the project will be based on these action plans and will commence in the second half of 1992, under the overall coordination of the RFTP but with substantial FHPP inputs (see section 6.3.2).

5.3.2 *Establishment of a Regional Post-harvest Fisheries Centre*

125 The 22nd RTMF recommended the establishment of a Regional Post-Harvest Fisheries Centre (RPFC), to be based in Suva, Fiji, as part of the FHPP. The issue of leasing USP land where the Centre could be built was resolved during the year. Approval by the Fiji Government was given for USP to sub-lease a plot of land on the lower campus adjacent to the buildings belonging to the Marine Studies Programme to SPC.

126 A Technical Dossier for presentation to the European Community (EC) was finalised in August 1991 and funding for the RFTP and two other projects was subsequently requested from the (EC) under the Lomé IV marine resources allocation. In line with country responses to a prioritisation exercise carried out by correspondence in 1992, the RPFC was assigned second priority within the SPC submission.

127 As noted in WP.1, a decision was made in June 1992 to accept only the top priority marine resources project from each regional agency for final funding consideration by EC decision-makers in Brussels. This situation now makes it unlikely that the RPFC can be financed through Lomé IV funding unless other projects are withdrawn.

128 : Despite this situation, the EC have indicated a continued interest in financing the project, and discussions to identify other possible sources of EC funding will take place in the near future. An update on these discussions will be presented during the meeting. If EC funding ultimately proves unavailable, further substantial delays are likely to occur as attempts are made to identify alternative funding sources.

5.3.3 Study tour to post-harvest fisheries technology institutes in Latin America

129 A report of last year's study tour to Post-harvest Fisheries Institutes in Pacific Latin America was completed and a published version is now available. A number of recommendations made by the study tour team in the report have been followed up during the last year with the assistance of the Trans-Pacific Fisheries Consultative Committee (TPFCC). A technical specialist, Mr Miguel Gallo, from Instituto Tecnológico Pesquero (ITP) (Institute of Fisheries Technology) in Lima, Peru was released by that Institute to teach microbiology and seafood packaging for the Regional Workshop for Trainee Technical Specialists to Assist the Chilled Fish Handling Sector of National Fisheries (see section 5.3.1). ITP provided Mr Gallo's services free of charge while the Canadian International Development Agency, through TPFCC, covered travel and living expenses.

130 After completing the teaching input in Suva, Mr Gallo undertook an assignment for the Department of Fisheries and Marine Resources in PNG (see section 5.2.3). On route to PNG brief visits were made to Port Vila, Vanuatu, and Honiara, Solomon Islands to familiarise himself with fisheries activities in those countries with emphasis on post-harvest fisheries. In PNG Mr Gallo visited fish landings and fish freezing plants in Daru, Western Province and watched processing and packaging aboard two shrimp trawlers off Yule Island/ Kerema Bay. He also conducted a workshop on Packaging and Processing of Seafood Products for about 20 participants from the private fishing industry, fisheries inspectors and fisheries development officers.

131 Before returning to Peru, Mr Gallo visited Noumea to provide an initial report of his assignment in PNG and to familiarise with the activities of the SPC Fisheries Programme. Discussions focussed on possible future cooperative activities under TPFCC, especially training attachments for fisheries inspectors and quality assurance staff.

5.3.4 Production of fish handling and processing videos

132 In 1991 ICOD committed funding for the production of nine new videos in the Fish Handling and Processing Video Series. These videos would add to the two very popular programmes on chilling fish produced in 1989 ("An icy tale" and "A chilling story"). However due to the substantial volume of work and commitments to regional and in-country projects it has not been possible to schedule any filming during the past year.

133 The topic selected for the next video in the series will be on freezing and cold storage procedures for seafood, which should be completed by the end of 1992.

5.3.5 SPC/ ACIAR novel tuna product development and extension project

134 SPC and ACIAR are examining the potential for a collaborative approach to supporting projects to manufacture novel tuna products in the region. This initiative has arisen because of the promising results of Tokelau's trial tuna processing and marketing project (see section 5.2.1).

135 The aim of the SPC/ACIAR project is to develop a systematic and integrated approach to establishing small-scale operations within isolated Pacific Island countries that would be income generating, provide employment and utilise the region's single most important and abundant natural marine resource, tuna. Based on the Tokelau experience, there is a clear need to develop a wider range of products that this and similar operations can easily manufacture, and to thoroughly investigate and understand available markets, and so as to extend the range of products that can be exported.

136 In the first instance, the project will target small, isolated Pacific Island countries, including Tokelau, Tuvalu and Kiribati. Initial visits were made to Tuvalu and Kiribati early in 1991 to establish the interest in establishing small-scale tuna processing operations and to make a first assessment of potential sites. A number of meetings of technical, marketing and socio-economic specialists, as well as development officers from ACIAR and AIDAB, were also organised by ACIAR to evaluate the feasibility of the project.

137 As a result of these meetings ACIAR agreed to fund two desk studies to help provide further information on the feasibility of the project. The first was on the possible markets for novel tuna products, and the second on the type and range of such products that can potentially be developed and then manufactured in the Pacific Islands. The two studies were completed in May. Following a review of the reports by ACIAR, SPC, and the countries concerned, some initial laboratory work on product development of recommended tuna products will be commissioned.

138 The project is thus advancing slowly but at this stage can only be considered to be in the feasibility-study stage. Three further technical reviews need to be carried out before final ACIAR approval can be given, and these will depend on the outcome of the above-mentioned laboratory work and possibly other study and evaluation processes. In the interim, the three countries presently targeted within the project framework are being kept informed of progress made in developing the project.

5.4 Information/Publications

139 Despite a long-standing commitment to finalise and print a number of publications, little progress has been made due to the priority given to country assignments and the development and execution of regional projects. Finalisation of the new edition of "Beche-de-mer of the Tropical Pacific" is still not complete, but should be ready for printing in the very near future. In the interim, a limited reprint of the last edition has been ordered to fulfil ongoing demand for this publication. For similar reasons, little progress has been made with "Field Manual for Seafood Poisoning Outbreaks".

140 A Business Studies Manual designed for use during women's workshops in PNG and, ultimately, elsewhere in the region, has been completed and circulated for critical review. The manual will now be tested in the field in PNG before finalisation and wider distribution in the region.

5.5 Future plans

Specific on-going activities in the work programme of the FHPP over the next twelve months include: inputs into stage II of the Chilled Fish Sector Training (support for in-country workshops); further technical support to Tokelau's Trial Tuna Processing and Marketing Project; development of the associated SPC/ACIAR Novel Tuna Processing Project to an operational status; and completion of the assignment on marketing fish in Tonga. A significant input is also planned into the filming of further topics in the Fish Handling and Processing Video Series, which has made little progress over the last twelve months.

Due to the difficulties of including the French SPC member territories in the Regional Chilled Fish Sector workshop held in March/April 1992, a similar workshop is being organised for French-speaking participants in November/December 1992. The three-week workshop will be held in cooperation with Ecole des Metier de la Mer (EMM) in Noumea, with the FHPP providing substantial technical and logistical inputs.

Considerable delays are now likely to be experienced for the project on establishing the RPFC while alternative funding avenues to the EC/Lomé IV agreement are explored. Funding difficulties also need to be resolved to enable recruitment of a replacement Women's Fisheries Development Officer. In the meantime, support to the region will continue in this area, albeit at a reduced level, through consultancies. It is likely that surveys on the role of women in fisheries in Vanuatu and Solomon Islands will be undertaken in the near future, at the request of those countries.

The close relationship developed over the last year with technical institutes in Latin America, and in particular with ITP in Peru, is expected to continue. Training opportunities, especially in the area of fisheries inspection and quality assurance, are being formulated for possible execution in collaboration with the TPFCC.

6 REGIONAL FISHERIES TRAINING PROJECT (RFTP)

6.1 General

141 In the past year the RFTP has continued in its priority activity of identifying and meeting training requirements within the region that are not addressed by established training institutions, and in connection with this aim has organised and implemented a range of *ad hoc* training activities. In addition, project staff have worked to address several issues identified by RTMF 23 for priority consideration, including the coordination of training activities and the development of a Certificate in Fisheries Studies programme.

142 The RFTP comprises the posts of Fisheries Education and Training Advisor (FETA), Fisheries Training Associate (FTA), and Project Assistant (PA). The FETA position was vacant from April 1991 until February 1992 when the post was filled by Hugh Walton, who joined SPC from the office of the Regional Fisheries Support Programme in Fiji. In the interim, the project was managed by former FCOORD Barney Smith until his departure in May 1991, and then by FTA Michel Blanc.

143 Funding of project positions and operating costs continue to be provided by the Governments of Australia and France and the Territory of New Caledonia. Funding for specific training courses and other activities comes from a variety of sources including the Governments of New Zealand, Australia, France and the UK, ICOD, the Commonwealth Secretariat, and the Commonwealth Foundation. All funding is either renewable on an annual basis or is *ad hoc*, which adds substantially to the workload of project staff. Longer term commitments from donors would allow for improved project planning and more effective use of staff on training activities rather than administration and financial management.

144 The RFTP was temporarily relocated to Suva in 1990 on an experimental basis. Following a 1991 review of the impact of the relocation on project activities, it was decided that overall Coastal Fisheries Programme integration was suffering as a result of the move since the RFTP's physical separation from other parts of the programme prevented adequate interchange occurring between Suva- and Noumea-based staff. The project was thus returned to SPC headquarters in Noumea during September and October 1991.

6.2 National-level Activities

6.2.1 Kiribati: Attachment training for two fish retailers

145 Following a request from the Kiribati government, two female workers in the fish retail centre in Betio, Tarawa, operated by the Outer Island Commercial Fisheries Trial (OICFT) visited Vanuatu on attachment training to the Fish Market in Luganville on Espiritu Santo and Natai Fisheries in Port Vila. The attachments took place with the kind support of the Vanuatu Fisheries Department, and were funded through the RFTP with technical advice from the FHPP. The attachment was timed to coincide with the practical module of the SPC/Nelson Polytechnic course which ensured a continuous supply of fish to both markets for the duration of the attachment. A visit by PFA to Port Vila during the attachment enabled more in-depth coverage of technical subjects and ensured that the training met the needs of the individuals and the OICFT in Kiribati.

6.2.2 Cook Islands: Training attachment on FAD Fishing Techniques

146 In June 1992 an officer from the Cook Islands Ministry of Marine Resources participated in the latter part of the SPC/Nelson Polytechnic course and then commenced a one-month period of attachment training with MF Paxton Wellington in Luganville, Vanuatu (see section 4.3.2). The attachment, which was funded by FFA, covered FAD fishing methods, electronic fishing aids, and FAD deployment, with a principal focus on practical training in coastal and offshore navigation.

6.3 Regional-level activities

6.3.1 13th SPC/Nelson Polytechnic Pacific Island Fisheries Officers Course

147 This course ran from 27 January to 4 July 1991, and followed a structure similar to previous years, with an eighteen week module at the New Zealand School of Fishing, based at Nelson Polytechnic, followed by a five week practical module at a Pacific Island venue. The 1992 course hosted 12 participants representing 10 countries and territories selected from 25 nominations.

148 This years practical module was very successfully hosted by the Fisheries Training Centre, Luganville, Santo, Vanuatu with tutorial input from SPC, Nelson Polytechnic, and the Fisheries Training Centre. The Santo venue proved to be an excellent location for the practical module, providing very comfortable accommodation and well equipped vessels which allowed trainees to take advantage of the local marketing system. FADs recently deployed with the assistance of the DSFD Project (see section 4.2.5) helped the students to take record catches for the course and, through fish sales, significantly boost the coffers of the Fisheries Training Centre.

149 As with previous years minor modifications were introduced to course content during 1992 course however the course remained fundamentally unchanged from previous years. A review of the course is likely in relation to deliberation on regional approaches to vocational and technical training and the potential for the introduction of a Certificate in Fisheries.

150 The course remains popular with Fisheries Divisions and has continued to draw good support from traditional funding agencies. The 1992 course was supported by the Governments of New Zealand and Australia, the Commonwealth Secretariat and the Commonwealth Foundation.

6.3.2 Chilled fish sector training - stage II: National workshops

151 The regional workshop that made up stage I of this project is reported in detail in section 5.3.1. The workshop was structured to train individuals to be able to train others in their own countries, and forms part of a larger project in which follow-up support to in-country training is built in as stage II of the workplan.

152 The 16 workshop participants received four weeks of technical training and a further two weeks of extension training designed to enhance their capacities to conduct in-country workshops. These will range from 1-2 day workshops for fishermen and landing/market staff to longer 2-3 day courses for traders, processors and exporters.

153 Each in-country course will involve a visit by a tutor from the original regional workshop. The tutor's role during this visit would be mainly advisory, leaving the regional workshop participant to take the major organisational and teaching role. Following stage two visits the participants should be able to run other workshops with confidence and provide good technical advice to the post-harvest fisheries sector.

154 Sixteen such workshops are planned during the next year. Coordination of financial and tutorial support will be provided by the RFTP, with technical support from the FHPP. Funding for the project has been provided mainly by ICOD, with support from the RFTP operational budget.

6.3.3 *Extension Training Project*

155 The RFTP has been continuously involved in the development and implementation of Extension and Communication Skills programmes since 1988. A second phase of the Project's major programme of in-country and regional Extension and Communication Skills courses, funded by ICOD, began early in 1991 and has continued up to mid-1992. With the completion of the French language version of the Extension Training Manual and the organisation of a further three tutor exchanges in support of national workshops during 1992, the RFTP has now discharged all current, funded commitments to this type of training.

156 RFTP input into extension training has been considerable, and the Commission is keen to undertake a comprehensive evaluation and assessment of these activities to date. With a view to ascertaining the impact of the training courses held so far and ongoing needs for extension training, RFTP staff have organised a region-wide survey of marine resource departments and extension personnel. A survey questionnaire has been distributed and it is envisaged that the results of the survey will be incorporated into a review paper for distribution to SPC member countries.

6.3.4 *Human Resource Development Survey*

157 The aim of the HRD survey was to assess, within the existing economic constraints of each country and fisheries department, the future personnel needs of fisheries administrations in the region in terms of qualifications, skills, level of competence, and numbers of people. The survey proposed a number of recommendations regarding appropriate human resource development approaches and training strategies for the region, and for individual countries.

158 The survey was discussed at length during RTMF 23, which ultimately recommended that the report be published as an SPC Technical Paper for wide distribution within the region, and that SPC seek the views of the recipients of the report as to the value of the recommendations. The country-specific appendices contained in the report, which some countries indicated a desire to review in detail, have now been cleared by the countries concerned and the full report is currently in press.

159 Despite delays in distribution of the final report, discussion of the major themes and issues raised by the survey has been ongoing through correspondence and a number of regional fora. Many of these discussion points are controversial and, in a number of areas which have implications for the RFTP, no firm consensus view has appeared. Long-term planning of RFTP activities will be influenced by the degree to which SPC and Pacific Island countries accept and act on some of the HRD recommendations. A final discussion and the resolution of these issues is therefore planned during a "Workshop on Fisheries Training for the Pacific Islands" which will be held as part of the 24th RTMF.

6.3.5 *Directory of Fisheries Training Opportunities*

160 The workplan for this project, which is funded by ICOD, involved first revising the 1986 edition of the directory to provide updated information to SPC member countries in a timely fashion. It was then planned to convert the word-processed information to a database format to enable frequent regular updating and the provision of current information to countries periodically or on request.

161 Unfortunately, the aim that the directory would be printed and distributed by the end of 1991 has not been met. Some delays were experienced as a result of the time taken to recruit a replacement officer into the FETA post. A final draft of the directory was completed in March 1992 by the external consultant engaged to carry out this task. Subsequently, editorial input by RFTP staff identified problems relating to the currency and relevance of some entries, and the standardisation of information provided with each reference. In order to resolve these problems, it is now desirable to convert the directory information to a database format before printing and distributing the final document.

162 A consultant has now been contracted to undertake a conversion of the directory to CDS/ISIS format, using the existing ICOD Fisheries Training Database as a model. This will enable the RFTP to continue to update and upgrade the directory as courses and institutions change and develop. The database should be available for distribution, on diskette or in hard copy, by December 1992.

6.3.6 *Fisheries Personnel Information Database*

163 Maintenance of this database, which serves as a repository for personnel information on individuals from Pacific Island countries, is an ongoing RFTP activity. Data on the training and employment histories of all SPC course nominees and information obtained from the HRD survey having been entered during the course of 1992. The database now holds entries for more than half of the regions fisheries personnel and will continue to be added to as further personnel information comes to hand. The RFTP is keen to develop appropriate mechanisms to acquire additional information and increase the coverage of the database.

164 The database is intended to serve as a tool for course and syllabus development, statistical analysis, and the planning of training activities. This usage has been minimal this year with only 2 requests for database information, but is expected to grow as the database becomes more complete and correspondingly more powerful as a planning tool.

6.3.7 *Distance Course on Report Writing Skills*

165 After evaluation of a number of educational institutions by the RFTP, an agreement has been entered into between the Commission and the Institute of Education at the University of the South Pacific to offer a pilot project distance (correspondence) course in English-language report writing during the first semester of 1993. The RFTP is awaiting the outcome of an approach to a potential donor to secure funding for this project, which was strongly supported by regional fisheries officers during a questionnaire survey carried out in 1991.

166 The course will operate in two phases. A pilot phase will serve as a trial course with three groups of five participants. The second phase will be revised if necessary as a result of review of the pilot project and will serve up to 120 regional participants. Nominations for participation in the pilot course will be requested as soon as funding arrangements are confirmed.

6.3.8 Fishing Techniques Training Videos

167 Shooting for six videos on fishing techniques was completed during the 1991 SPC/Nelson Polytechnic Practical Fishing Module in Fiji. However, the projected completion and distribution date of late 1991 has not been accomplished. This is due to delays with script preparation and revision due to the delayed recruitment of the FETA, combined with a heavy workload at the SPC Media Centre, which is responsible for final editing and dubbing of the tapes.

168 Copies of two of the videos, on "fresh bait trolling" and "small scale pelagic longlining", should be distributed during the next three months. However, completion of the other four videos is unlikely until mid 1993.

6.3.9 ASEAN/PINS Workshop on Fisheries Education and Training

169 This workshop, organised by the Western Pacific Fisheries Consultative Committee (WPFCC) was hosted by SPC and the RFTP from 13-15 April 1992. During the workshop, 36 ASEAN and Pacific Island representatives met to examine mechanisms for closer inter-regional cooperation in fisheries training initiatives. As well as being involved in the details of the meeting organisation, FETA and other CFP staff prepared three papers for presentation at the meeting and participated actively in most of the sessions.

170 While not in a position to formally provide direction to SPC's programme, the meeting nevertheless expressed its support for the introduction of a Special Interest Group (see section 3.3.1) on Fisheries Education and Training to enhance communications between training institutions and user groups. The meeting also supported the concept of a study tour for PIN representatives to ASEAN training and educational institutions as a means to identify specific avenues for inter-regional collaboration. This concept has since been endorsed by the Forum Fisheries Committee meeting held in Niue in May 1992. At the request of WPFCC, RFTP staff will assist in its implementation.

6.3.10 Fisheries educational materials for schools

171 Both national and regional interest has been expressed in developing fisheries and marine curricula and information modules for schools and several projects have been initiated by FFA, SPREP, and USP. RFTP activity in developing school programmes has however so far been constrained by other commitments.

172 A recent USP initiative on "Public Awareness in the Marine Environment" will establish a coordination unit for marine and fisheries curriculum and material development. It is envisaged that RFTP will be able to support the work of this unit, primarily through provision of information on existing school programmes and the identification of appropriate curricular source material.

6.3.11 Certificate in Fisheries Studies

173 The 23rd RTMF recommended that the South Pacific Commission, the University of the South Pacific and the Nelson Polytechnic consult together with a view to establishing the feasibility of introducing a Certificate in Fisheries Studies as soon as possible. Consultation has taken place as required, through correspondence and opportunistic meetings. Other training institutions and several Pacific Island country representatives have also participated in the consultations as opportunity permitted.

174 A number of options have been discussed whereby the proposed Certificate course might be established. However, there are many considerations that relate to this issue and none of the options appears completely satisfactory. In order to finalise this matter, a discussion paper (WP.5) outlining the various options available will be presented during the Workshop on Fisheries Training for the Pacific Islands to be held as part of this meeting.

6.4 Future Plans

175 In addition to ongoing activities related to existing projects, the following potential new activities have been identified.

Training and Education Special Interest Group

176 In response to a directive from the 23rd RTMF to determine how best to achieve an improvement in coordination of fisheries training and education, the RFTP proposes to establish a Special Interest Group dedicated to promoting the exchange of information on training activities and opportunities through the production of a regular newsletter. The proposal is outlined in more detail in WP.6, and will be discussed in the Workshop on Fisheries Training for the Pacific Islands to be held as part of this meeting. If supported by the meeting, the SIG could come into effect as soon as funding support is identified.

Pacific Island Fishing Deckhand Certification

177 The RFTP has responded to a concern expressed by fishing industry and training interests in Fiji, Vanuatu, and FSM, for improved training of Pacific Island fishermen serving on local commercial and foreign vessels. Discussions with representatives from these countries suggest there may be merit in introducing a standardised Fishing Deckhand Ticket. The RFTP has expressed willingness to assist in the development of an appropriate training course and in the implementation of pilot scheme. A summary of considerations to date is presented for discussion in WP.7.

178 It is envisaged that the Workshop on Fisheries Training for the Pacific Islands scheduled to be held as part of this RTMF will assist in determining a three to five year perspective for the RFTP.

7 OFCF FISHERY DEVELOPMENT PROJECT

7.1 General

179 The Overseas Fishery Cooperation Foundation (OFCF) Fisheries Development Project was initiated in June 1991 after receiving strong support from the 22nd RTMF. The project acts as a channel for the input of Japanese information and expertise into the work of the SPC Fisheries Programme, thereby increasing the range of services and benefits SPC can deliver to Pacific Island member countries. The goal of the project is to provide support both to the development of fisheries in the Pacific Islands region, and to the further development of fisheries relations between SPC member countries and Japan.

180 The project, which is fully funded by OFCF, covers the single position of Fisheries Development Associate (FDA), which has been occupied by Masanami Izumi since the inception of the project in June 1991. The FDA provides technical support to all areas of the CFP work programme, including research, information, small-scale fisheries development and training, as well as promoting further cooperation in fisheries between Japan and SPC. Work activities typically include the preparation of English-language fishery documentation based on Japanese-language materials, and the development of communication links and information flows with private and government fishery bodies in Japan. The FDA also provides advice to SPC member countries on fisheries development issues involving Japanese interests.

7.2 National-level activities

7.2.1 Federated States of Micronesia: Marine resources bibliography

181 In March 1991, the Government of the Federated States of Micronesia requested assistance in compiling a bibliography of material relating to fisheries and marine resources of the Federated States of Micronesia. A search for appropriate documents took place in FSM, Guam, Tokyo, Honolulu and Suva during September, October and November 1991, with information subsequently being entered into a Pro-Cite bibliographic database. Special attention was paid to research and experimental reports written in Japanese by research scientists of the Palao Tropical Biological Station and the Japanese Government South Seas Bureau's Fisheries Experiment Station in the 1930s during the Japanese-mandated era. The bibliography, which consists of 167 pages and 1,283 references, was published and distributed throughout the region in June 1992.

7.2.2 Marshall Islands: Marine resources bibliography

182 In September 1991, the Government of the Marshall Islands requested assistance in compiling a bibliography of material relating to fisheries and marine resources of the Marshall Islands. A search for appropriate documents took place in Majuro, Guam, Tokyo, Honolulu and Suva at the same time that the FSM database (section 7.2.1) was being compiled. Special attention was paid to research and experimental reports on marine resources and the environment in Eniwetok and Bikini Atolls, Marshall Islands. The bibliography consists of 119 pages and 786 references and was published and distributed in June 1992.

7.2.3 New Caledonia: Educational material on marine engines

183 The Ecole des Métiers de la Mer (Maritime College), Noumea and the Lycée professionnel (Technical College), in Touho, North Province, New Caledonia, enquired whether any educational materials or technical information on marine engines (outboard motors, diesel engines etc.) were available at SPC for improvement of their college programmes.

184 After observation of the field training course and college facilities, FDA entered into communication with a number of major Japanese marine engine companies and also carried out a material search at SPC. As a result, a considerable body of information and educational material on marine engines provided by Japanese companies were introduced to both colleges.

185 To encourage this form of technical cooperation between colleges, SPC and Japanese companies, a detailed article on the types of marine engineering educational training materials available was prepared and published in SPC Fisheries Newsletter #60. Further support to this type of cooperation can be provided by FDA in response to requests.

7.3 Information/ publications

186 Japanese fisheries organizations, research institutions, and fishing and marine gear companies have been contacted to gather information on aid and technical cooperation, educational and training material on marine engines and resource management, tuna and oceanographic research, and fishing gear. Some of this material has been translated and condensed for use in the SPC Fisheries Newsletter and SIG Information Bulletins. A number of other contributions have been made to these publications, both of original materials and of translated Japanese texts. These have covered a wide range of topics, from reports of work programme activities, to articles on fishery statistics, turtle farming, and beche-de-mer propagation. Translations of specific news items, tagging posters, company brochures, etc, have been made in support of the work of other parts of the Fisheries Programme.

187 Specific information on the Japanese Government's aid system and the activities of OFCF in the South Pacific has also been provided to SPC member countries on request, to promote a better understanding of Japanese assistance to the region.

7.4 Future plans

188 Similar activities to those mentioned above will be continued in the coming year. Following an official request, assistance in compiling a marine resources bibliography of Guam will be provided in the second half of 1992. Technical advice and information will continue to be made available to SPC member countries on the Japanese Government's aid system and activities. Selected Japanese information and educational material on fishery resource management and composition of seafoods will be collected and translated for publication in the SPC Fisheries Newsletter and other information documents.

189 In addition, technical assistance to SPC member countries in connection with those elements of their national fisheries development plans that involve Japanese assistance will be provided on request. Two requests have been received to date, from Palau and Cook Islands, for FDA to assist in aid or business negotiations between national and Japanese interests. This assistance will be provided through field assignments that will take place during the second half of 1992.

8 HEAD X WORK PROGRAMME ACTIVITIES RELATED TO FISHERIES

190 Several items from SPC's core budget head X are used from time to time to fund fisheries-related activities requested by SPC member countries. The relevant core budget lines are:

- 10000 Short-term Experts' and Specialists' Services
- 10100 Assistance to Applied Research, Experiments and Field Work
- 10200 Inter-Country Study Visits and Travel Grants

191 Only one request for assistance in the Coastal Fisheries field under head X was received, from Cook Islands. The purpose of the project is to examine pearl oysters from three different lagoons in Cook Islands to identify genetic differences between stocks, prior to allowing the movement of juveniles or broodstock between lagoons. The request was considered in June 1991 and a grant of NZ\$ 10,000 approved from budget item 10100.

192 The pearl oyster samples are being collected during June 1992, and will be forwarded to the Australian Institute of Marine Science in Australia where the analytical work will be carried out. In view of the wide interest in re-establishing pearl-oyster stocks in the region, this project has implications for several Pacific Island countries.

9 SUMMARY

193 The 1991/ 92 period has been one of considerable activity for the Coastal Fisheries Programme, with 25 national-level and 25 regional-level projects in operation during the year. In general these have been executed to the satisfaction of member countries and of the Commission, and the programme has been commended in high-level meetings of senior regional representatives. Improvements to the administrative organisation of the Programme implemented in 1990/92 are leading to improved coordination both within the Programme and with other SPC activities, and further increases in the level of programme integration should be seen in the years to come.

194 There have nevertheless been times when the workload has been excessive and the resultant pressure on staff great. As a result, there have been a number of occasions when deadlines or commitments have had to be postponed. This has been exacerbated in some areas by staff shortage arising from positions becoming vacant.

195 The major problem experienced by the Programme as a whole continues to be in the timely production of publications, as well as the related area of video materials production. The Fisheries Newsletter and SIG Information Bulletins are now produced in a timely way, and draft reports of national projects are now always delivered in a timely manner to the country concerned. However, finalising reports to publication standard continues to absorb a disproportionate amount of time. This, coupled with the fact that field projects and advisory services are always allocated a higher priority than publication-related work, results in publications taking a long time - months or even years - to finalise. The situation is exacerbated by the increasingly heavy workloads of the Commissions centralised publications and translation departments, problems which are outside the capacity of the CFP to resolve.

196 Several steps have been taken to improve the CFP's capacity to deal in-house with publication production to as final a stage as possible. All CFP Project Assistants have undergone a programme of formal training in the use of publication layout software during the year, and the Programme is now well equipped with publication computers, printers, and other hardware necessary to bring documents to the stage required for final printing. This development of in-house publication capacity has led to the recent finalisation of several outstanding publications. The reduction and complete elimination of the Programme's publications backlog in 1992/93 is a major target towards which all officers have been directed to work.

197 In other respects the Programme has continued to function according to its mandate during 1991/92, focussing primarily on satisfying country requests for assistance with and support to national development projects, and secondarily on developing and promoting initiatives that address regional fisheries development issues. Unless directed otherwise, the Programme will continue to pursue similar objectives in the future.

198 There is, however, a further, more fundamental problem that the CFP as a whole will face in the next year, that of obtaining adequate funding to support programme activities. Of the total 1993 budget of 2.37 million CFP units, only 0.24 million (10%) is covered by SPC's core budget. Of the remaining 2.13 million units that have to be raised from extra-budgetary sources, only 1.05 million have so far been secured. A further 1.08 million units will therefore need to be raised within the next year to enable the continuation of programme activity at current levels.

199 Extra-budgetary activities in all CFP projects come to term in 1993, with the exception of the DSFD project which, instead, is facing a major cut in core budget allocations. A priority activity during the second half of 1992 will thus by necessity be fund-raising. This process, which is likely to absorb a considerable part of the energies of programme staff at all levels, will greatly benefit from the active, vocal support of RTMF participants and their home governments.