

SECRETARIAT OF THE PACIFIC COMMUNITY

**FORTIETH MEETING OF THE
COMMITTEE OF REPRESENTATIVES OF GOVERNMENTS AND ADMINISTRATIONS**
(Noumea, New Caledonia, 25–29 October 2010)

DIVISIONAL REPORTS

**AGENDA ITEM 4.4 – FISHERIES, AQUACULTURE AND MARINE ECOSYSTEMS DIVISION
REPORT**

(Paper presented by the Secretariat)

Summary

This paper reports on the work of the Fisheries, Aquaculture and Marine Ecosystems Division during 2010, and reviews the planned results for 2011. The division, previously called the Marine Resources Division, began implementation of a new four-year strategic plan this year. Good progress has been made during the year, and improvements can be expected in 2011 with a strong prospect of additional project funding.

Recommendations

1. CRGA is invited to:
 - note the results delivered and the achievements of the division during 2010;
 - approve the outline of the 2011 work programme and endorse in principle the new initiatives proposed, notably:
 - a second phase of the Global Environment Facility project to provide scientific support for oceanic fisheries management;
 - the strong fisheries component of the German Technical Cooperation (GTZ) programme to assist coastal communities to adapt to climate change; and
 - project support from the French Global Environment Facility (FFEM) to build on the achievements of the Coral Reef Initiatives for the Pacific (CRISP) project.
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FISHERIES, AQUACULTURE AND MARINE ECOSYSTEMS DIVISION

Purpose

1. The purpose of this paper is to report on implementation of the 2010 work plan, including progress with new initiatives endorsed by CRGA last year, and to outline the plan for 2011.

Presentation of the division

2. The division consists of two programmes: the Oceanic Fisheries Programme (OFP) and the Coastal Fisheries Programme (CFP). The Director's Office provides oversight and support for both programmes.
3. The goal of the division is **the sustainable management of the marine resources of the Pacific Islands region for economic growth, food security and environmental conservation.**
4. The goals of the coastal and oceanic programmes are respectively:
 - **sustainable management and development of coastal fisheries, nearshore fisheries and aquaculture in Pacific Island countries and territories (PICTs);**and
 - **management of fisheries exploiting the region's resources of tuna, billfish and related species for economic and ecological sustainability using the best available scientific information.**
5. The work that contributes to the achievement of these goals during 2010 is reported in Annex 4 by objective and result area. This will be updated at the end of the year and will form the basis of the division's annual report, which will be published after the end of the programme year on December 31.
6. Annex 3 contains the summary of results by country, providing an update on progress in implementing the fisheries sector part of the various joint country strategies.

Divisional finance

7. The revised budget for the division for 2010 was 10.8 million CFP units (equivalent to USD 11.3 million at September exchange rates) (Table 1).

Table 1: Revised budget of FAME for 2010 in CFP units

	Director	OFP	CFP	Combined
Recurrent	498,700	1,350,200	1,619,900	3,468,800
Project	152,100	4,993,900	2,218,500	7,364,500
Total	650,800	6,344,100	3,838,400	10,833,300

The CRISP Project Coordination Unit, entirely project funded, is included under CFP.

8. As expected, funding was tight during the first part of 2010 for CFP, although a small increase in programme funding relative to 2009 was made possible by a return to more normal exchange rates.
9. CFP benefited from a new Australian Agency for International Development (AusAID) project to develop monitoring of the impact of climate change on coastal fisheries. OFP secured additional funding from the Western and Central Pacific Fisheries Commission (WCPFC) for scientific services as well as a grant from the Government of New Caledonia to support data entry work. The start of the European Union-funded Scientific Support for the Management of Coastal and Oceanic Fisheries in the Pacific Islands Region (SciCOFish) project mid-year also made substantial extra resources available to both programmes.

Divisional staffing

10. As at 1 September 2010 the division had a total of 64 staff (of whom 26 are female) (Table 2).

Table 2: Staffing of FAME as at 1 September 2010

	Director	OFP	CFP	Total
Professional	3	23	13	39
Technical	2	16	1	19
Administrative	1	1	4	6
Combined	6	40	18	64

This is similar to 2009, although several posts were also under recruitment. There was some turnover of staff during the year, with two section head positions in CFP vacant for several months before replacements could take up the jobs.

11. Sixteen nationalities are represented among the professional staff, and nine of the 42 positions are held by Pacific Islanders. Technical staff are mainly data entry personnel but also include laboratory technicians and publication design specialists. There are staff seconded to the fisheries administrations in New Caledonia, French Polynesia and the Federated States of Micronesia (FSM).

New divisional arrangements

12. From the start of 2010, CFP adopted a new structure with three sections: Coastal Fisheries Science and Management, Aquaculture, and Nearshore Fisheries Development. Each section addresses one of the objectives of the work programme.
13. The structure of OFP was also adjusted to split the Statistics and Monitoring Section into two sections, one for statistics and one for monitoring. This reflects the growing workload and staffing in these two areas.
14. The Information Unit now comes under the Director's Office, as does a position to handle administration and communications for EU-funded projects; both activities serve the two programmes.
15. As planned, the Freshwater Aquaculture Officer was relocated from Noumea to Suva in early 2010. A new Observer Training and Coordination Officer has recently been recruited and is based in Pohnpei. In both cases, the motive for this decentralisation is to put the officers closer to where most of their work takes place for greater efficiency and cost savings.

Progress towards achieving strategic plan objectives

16. A detailed report against the new strategic plan for work carried out in 2010 is attached as Annex 4; therefore, this section just summarises the objectives of each programme and some key achievements. An update is also provided on action taken to implement some of the new initiatives endorsed by CRGA in 2009.

Directors' Office

17. The Directors' Office aims to provide effective coordination and resourcing of the work of the Oceanic and Coastal Fisheries Programmes. Its specific objectives are:
- to develop and sustain effective relationships between the division and its stakeholders; and
 - to promote informed policy decisions and public awareness of marine resource issues in PICTs.
18. 2010 saw some good progress in resource mobilisation, with the start of the SciCOFish project (10.4 million CFP units over four years). Several other projects were approved subject to final documentation – these are discussed further in the context of the 2011 work programme.
19. The Council of Regional Organisations in the Pacific (CROP) Marine Sector Working Group was revived and oversaw the development of the Oceanscape Framework – a major ocean policy initiative proposed by the Government of Kiribati. This was endorsed by the Pacific Islands Forum. Forum Leaders also supported the findings of the Future of Fisheries Study, which is covered in detail in paper 3.4.
20. In addition to the usual range of publications and information material, a new website for FAME and CFP was developed and is now online. It uses the new system adopted across SPC. The new OFP site should also be operational before the end of the year. A study of the effectiveness of the distribution of fisheries information material in one member country has provided new insight into the problems of 'getting the message across'. Improved methods of distribution are now being developed. Information on key fisheries issues was reported quite widely in regional media, both in print and on the radio during the year, although we still have a long way to go before we can match the coverage given to Greenpeace on these topics.

CFP

21. Objectives of CFP are:
- Objective 1 – Assist governments and administrations in the development of scientifically informed and socially achievable coastal fisheries management policies and systems in line with the guiding principles of the Apia Policy.¹
 - Objective 2 – Provide a regional framework for sustainable aquaculture, in the areas of planning, research, development and trade, for Pacific Island governments, private enterprises and other stakeholders.
 - Objective 3 – Develop sustainable nearshore fisheries in PICTs to provide food security, livelihoods and economic growth.

¹ The Pacific Islands Regional Coastal Fisheries Management Policy 2008–2013 ('the Apia Policy') was endorsed by the 4th Ministerial Forum Fisheries Committee (FFC) in 2008.

22. The first objective largely involves improving the ability to evaluate and manage coastal fisheries resources. Two more PICTs now have the capacity to carry out assessments of aquarium fish resources by national staff, and fishery management plans for specific fisheries were agreed with stakeholders in Cook Islands, Kiribati and FSM. Improved legislation for coastal fisheries and aquaculture was developed for three PICTs, with more work planned before the end of the year. Community based management programmes were strengthened in four PICTs, empowering communities and improving resource management. Much of this work involves extensive consultations in countries to achieve support from stakeholders.
23. In the field of aquaculture, three PICTs will have new development plans by the end of the year, to guide the development of this growth industry. SPC staff continue to support the Australian Centre for International Agricultural Research (ACIAR) mini-projects in six PICTs, generating useful research results as well as enabling five students to achieve postgraduate qualifications in aquaculture this year. SPC is also an organiser of the regional conference 'Tahiti Aquaculture 2010', which will see, among other things, the presentation of a review of the marine shrimp industry. Staff in nine PICTs with aquarium exports of cultured species have a better understanding of the processes required by the Convention on International Trade in Endangered Species (CITES) following a workshop held in Honiara by the Aquaculture Section. This will facilitate trade in these commodities.
24. Studies have consistently shown that the provision of fish aggregating devices (FADs) is one of the most effective ways of improving the productivity of coastal fishing, exploiting sustainable resources of surface tuna. However, relatively few PICTs are able to maintain FAD programmes. During 2010, the Fishery Development Officers focussed their efforts on building the capacity of fisheries departments to order materials and deploy and maintain FADs as well as providing training in fishing skills and monitoring catches to demonstrate the benefits. Programmes are in place in Samoa, FSM, Kiribati, Tuvalu, Nauru and Marshall Islands, and have led to improvements in food security and income. Other achievements have included training of fishers as well as search and rescue staff, leading to improved understanding of sea safety issues; and successful hook exchange experiments/demonstrations in New Caledonia and American Samoa to minimise the accidental catch of turtles by tuna longliners.
25. While the preceding paragraphs highlight outcomes of work by the three sections making up CFP, there is often a need for an integrated approach. The development of sport fishing for bonefish in Cook Islands, for example, involved development of a management plan for the fishery, development of training guides, and publicising the opportunity to sports fishers overseas. The result is several new business enterprises and more tourist arrivals, with reduced commercial fishing pressure on lagoon stocks.

OFP

26. The OFP work programme has three key objectives:
 - Objective 1 – Provide high-quality scientific information and advice for regional and national fisheries management authorities on the status of, and fishery impacts on, stocks targeted or otherwise impacted by regional oceanic fisheries.
 - Objective 2 – Collect and analyse accurate and comprehensive scientific data for regional and national fisheries management authorities on fisheries targeting the region's resources of tuna, billfish and other oceanic species.
 - Objective 3 – Improve understanding of pelagic ecosystems in the western and central Pacific Ocean.

27. Major achievements under the first objective included the completion of new region-wide stock assessments for skipjack and bigeye tuna. The skipjack assessment, the first for some time, made use of information from the tagging programme for the first time as well as new analyses of fishery-related data. The results, suggesting less scope to increase catches than had previously been thought, have attracted considerable interest. The bigeye assessment shows that overfishing continues to occur. A three-year research plan was developed for key oceanic shark species, and funding for the implementation of this plan is being sought from WCPFC.
28. At the subregional and national levels, work included analyses that have supported the introduction of a new longline fishery management system for the Parties to the Nauru Agreement (PNA), as well as analytical work on improved management of albacore longline fisheries for other members. The delivery of advice for national tuna management measures has continued, with four National Tuna Fishery Status Reports to be completed by the end of the year. Capacity building work for national fisheries staff in understanding and using stock assessments continues to be a great success, with many now considering formal studies to further develop their skills in this area.
29. The programme met all its responsibilities for maintaining and updating the regional database of tuna fisheries statistics, with the annual catch estimates for 2009 completed on schedule. As well as its importance to member countries, the data feeds directly into the stock assessments mentioned above. More countries are now able to manage their own data efficiently using the latest version of the Tuna Fisheries Data Management System (TUFMAN) programme, which was rolled out in seven countries during the year. SPC has provided training and in some cases computer hardware to accompany this rollout. SPC has also assisted the development of tuna data collection in Indonesia, Philippines and Vietnam. Although these countries are not SPC members, they have fisheries that impact on the region's resources. Considerable progress was made with the analysis of purse-seine species composition, using paired spill and grab samples collected by observers during 2008–2010.
30. The region's observer programmes have continued to meet the objective of 100 per cent observer coverage on purse-seine vessels during 2010, with support from SPC and the Forum Fisheries Agency (FFA). By the end of the year, 150 observers will have been trained. While most of this training is delivered by SPC Training Officers, Papua New Guinea (PNG) now runs its own courses, and other countries are developing this capacity. As well as providing a wealth of data on the fishery and improving compliance, observer programmes are providing jobs for some 450 Pacific Islanders. There is strong demand for this kind of work in countries like Kiribati and Solomon Islands, with many applicants for each place.
31. Although considerable success has been achieved in observer training, some difficulties have been experienced at the national level in organising observer data for transmission to OFP for processing. This has created a backlog of data that will take some time to clear. OFP staff have been working actively with fisheries departments to set up efficient procedures to send data forms to SPC and return the processed data to them.
32. While the major tagging efforts of the Pacific Tuna Tagging Programme were completed in 2009, two cruises targeting bigeye tuna in the central Pacific using hand-line fishing will have been executed by the end of 2010. Meanwhile, efforts have gone into tag recovery, and arrangements have been put in place in all the major tag recovery locations. Fifteen per cent of tags have been returned, from as far away as Thailand and Ecuador, and analyses have been carried out on tuna movements and the impact of FADs. Tagging of albacore tuna has proved more problematic, but biological samples have been collected as well as some data, and useful experience has been gained.

33. Other results delivered by the Ecosystem Modelling and Analysis Section include a comprehensive analysis of the effects of oceanographic conditions on albacore fisheries, a study on the effectiveness of high seas marine protected areas, and the first applications of the Spatial Ecosystem and Population Dynamics Model (SEAPODYM) model at the level of national exclusive economic zones (EEZs).

CRISP

34. The aims of the CRISP project are to develop a vision for the future of these unique environments and of the people who depend on them and to introduce strategies and projects to conserve their biodiversity while developing the economic and environmental services that they provide both locally and globally.
35. 2010 is the last full year for the project, and much emphasis has been placed on publishing and disseminating results. Major publications are listed in Annex 2. The project has achieved a high degree of visibility, particularly in the francophone territories. CRISP has continued some field activities during 2010. These include trials of post-larval capture and culture (PCC) in Kiritimati Island, Kiribati; further work on shark tagging; and a marine resource and biodiversity survey of the Chesterfield Islands of New Caledonia carried out with the Secretariat of the Pacific Regional Environment Programme (SPREP).

Gender

36. Implementing the SciCOFish project has provided the opportunity to undertake a major gender analysis on how to increase benefits for women by increasing their participation in different areas of oceanic and coastal fisheries science and management. The current situation will be benchmarked in three countries. The study will then: identify and assess barriers to women's participation, identify measures to address these barriers, identify opportunities for specific intervention, and develop a gender mainstreaming toolkit for increasing women's participation in fisheries science and management with gender indicators.

Future direction, opportunities and challenges

37. In 2009, FAME identified a number of priorities, aided by the independent review of the programmes, the Heads of Fisheries meeting, and the development of the new strategic plan. These were highlighted in the 2009 CRGA divisional report. This section outlines action taken to address these needs over the past 12 months, as well as discussing a couple of new priorities.

CFP

38. *The need for simple monitoring programmes, databases, and effective management measures for key inshore fisheries* – This will be the main output of the SciCOFish project coastal component, with an emphasis on building national capacity in these areas. Five long term monitoring sites, tracking the impacts of climate change, will also be established under the AusAID climate change monitoring project. Both projects started during 2010.
39. *The need to provide effective support to private sector fisheries enterprises, in the areas where they most require help, including post-harvest and export market requirements* – The 'Fisheries for Food Security' project proposed to AusAID includes a long term adviser to assist countries and companies in meeting market requirements. This will complement short term assistance under the FFA/SPC DevFish2 project, which also supports the private sector through national associations. Both projects have been approved, subject to conclusion of agreements with the implementing agencies.

40. *A need to ensure that fisheries information products are relevant to, and are reaching, the people who can use them* – A study on the effectiveness of distribution of information in one member country has been completed, a new Communications Officer has been recruited, and discussions will be held with non-governmental organisations (NGOs) at a meeting in November to explore greater use of non-government channels to distribute material.
41. *Opportunities for greater engagement with the private sector and other key stakeholders in aquaculture and other programme activities* – The tilapia conference at the end of 2009 and the review of mariculture experience in the region (planned for late 2010) are providing new strategies for more effective engagement with the private sector in aquaculture. Linkages in fisheries development and tuna science are being strengthened.
42. *Limited capacity in the programme in to deal with work in the legal and economic areas* – The programme has recruited two new section heads with experience developing legislation in their own countries; a legal adviser position serving all SPC divisions will be recruited for SPC's Strategic Engagement, Policy and Planning Facility (SEPPF); and a Fisheries Economist will be recruited in 2011, replacing one of the existing Fisheries Development Officer posts.
43. An emerging issue that seems likely to consume a fair amount of time and effort is the introduction of new species and varieties of tilapia for aquaculture. SPC has never promoted species introductions, but the advantages of using familiar species and carefully selected strains of any animal for food production are well known. Recently one NGO and our colleagues at SPREP have raised fresh concerns over plans in member countries to introduce improved strains of Nile tilapia. While this is ultimately the decision of the country, which must balance the benefits for production and food security against risks to biodiversity, it will be important that regional organisations provide consistent advice.

OFP

44. *Bio-economic analysis to inform decision-making* – This was identified as a priority in last year's CRGA divisional report, and has since been endorsed by the Melanesian Spearhead Group technical meeting on fisheries and the Future of Fisheries Study, among others. This is a major result area for the SciCOFish project and FFA will be involved in the economic analysis. An agreement has been signed by the two agencies for implementation, and recruitment of the necessary expertise is in progress.
45. *Strengthening scientific advice and support to individual PICTS* – A second Senior Fisheries Scientist has been recruited to provide national level advice. Guidance on how to make this advice more relevant and timely was provided by a special session at the 'mini' Heads of Fisheries meeting in Honiara in May and will be implemented.
46. *Sustaining the efforts that have gone into building up the regional observer programme* – Through exceptional efforts, the two SPC staff members have been able to provide the training needed to maintain observer numbers (working with support from FFA). However, as expected, gaps have emerged in the capacity of both organisations to support the more than five-fold expansion of observer placement required to provide 100 per cent coverage. These gaps are in areas ranging from debriefing and data management to the financial administration of the subregional programmes. A joint FFA/SPC proposal for funding support for three years to help address these issues was submitted to the New Zealand Aid Programme, and its approval was announced at the Forum meeting by New Zealand's Prime Minister.

47. *Plans for further tagging cruises* – As noted above, limited tagging work was carried out in 2010. During the year, however, the National Fisheries Authority (NFA) of PNG announced plans to launch a three-year USD 3 million tagging programme in PNG waters. OFP will provide technical assistance with this unique investment in fisheries research by a developing Pacific Island country.
48. *More emphasis will also be needed on the development and effective use of national tuna databases* – Continuing investment in training, equipment and software development is resulting in improved capacity in a number of member PICTs. Support under the SciFish project will be extended under the new EU-funded projects, and capabilities to handle artisanal tuna fisheries data and make greater use of databases to identify illegal, unreported and unregulated (IUU) fishing will be developed.
49. *Deepwater snapper fisheries* – A new area of work that needs to be addressed is the capacity to assist with stock assessments and management advice for deepwater snapper fisheries. There is strong demand from member countries for assistance in this area. This work tends to fall between CFP (which has focused mainly on inshore reef and lagoon fish) and OFP (as they are not tuna or related species). Collaborative work between the two programmes will address the needs of member countries fully.

CRISP

50. The main issue for CRISP is that funding for the programme will end in early 2011, except for a grant that will extend work on development of PCC into 2012.
51. As a multi-agency programme, with objectives more closely aligned to the mandate of SPREP than that of SPC, CRISP seemed at first to be something of an anomaly in the FAME Division. In recent years, however, synergies have developed between the work of CRISP and that of the rest of the division, and there are good reasons to try to sustain the concepts and achievements of the project.
52. A proposal is currently being developed for the French Global Environment Facility (FFEM) that would build on this work, particularly at sites supported under CRISP. There may also be a role for the current CRISP coordination unit in the implementation of proposed 10th European Development Fund (EDF10) projects for the Overseas Countries and Territories (OCT) and members of the African, Caribbean and Pacific Group of States (ACP).

2011 work programme and budget

53. The 2011 work programme will be developed in detail in the first weeks of 2011, in the same format as the 2010 programme (Annex 4). It will be discussed by Heads of Fisheries at their meeting at the beginning of March and adjusted in line with any new priorities that they identify. Results and activities are assigned to individual staff, and form the work plans for their performance appraisal during the year.
54. The budget Green Book narrative identifies some of the significant results that have already been identified and can be achieved with the financial resources that have been secured. It is not always easy to separate the results of recurrent and project funding – some results require the input of resources from both, reflecting the alignment of projects with the strategic plan and a chronic shortage of recurrent funding.

55. In line with the FAME strategic plan objectives, the Director and supporting staff will concentrate on strengthening the relationship with stakeholders – colleagues in national fisheries departments, other regional agencies, partners that provide funding support, and international organisations. The Information Unit, which comes under the Director's Office, aims to provide information that will improve policy decisions and public awareness of marine resource issues. The Director has oversight of the implementation of the work programme of the division, as well as the management of major projects that involve both programmes.
56. Achievement of results of recurrent funding can be measured in terms of implementation of the work programme activities (at least 80 per cent); the outcomes of consultative meetings with fisheries colleagues; the mobilisation of new project resources (at least one major new project); and the production, dissemination and impact of information materials. Project results relate mainly to meeting the reporting and administrative requirements, as project outcomes are covered under the programmes that implement the work.
57. The objectives of the coastal fisheries programme can be summarised as sustainable management of coastal fisheries resources, development of aquaculture, and the development of nearshore fisheries within resource constraints. Common themes include the development of management arrangements (community and national) based on reliable resource assessments; research and development planning in aquaculture, with an increased emphasis on support for the private sector; and the promotion of fishing methods that are sustainable and encourage conservation of inshore reef and lagoon resources, such as fishing on FADs and sport fishing.
58. Measurable results in coastal fisheries management from recurrent funding include the adoption and implementation of resource management plans, resulting in sustainable fisheries in two PICTs; establishment of community based management arrangements in four communities; and development of improved fisheries legislation. Project funding supports this work through the development of national capacity in resource assessment and monitoring (50 people trained in survey methods) as well as database development (three systems up and running).
59. Results in aquaculture and fisheries development depend on recurrent funding at present. These include establishment of sustainable FAD fishing programmes (deployment, maintenance, monitoring and fishing skill development) in one PICT; and the establishment of two successful new ventures in aquaculture and a new sport fishing fishery with support from SPC.
60. OFP works in the broad areas of stock assessment, fisheries monitoring, fisheries data management and research and modelling of oceanic ecosystems. Results from recurrent funding include contributions to the regional stock assessments of major tuna species (three regional assessments); the delivery of specially tailored advice to individual members on their tuna resources – soon to be delivered and updated on a Web-based system; and the updating of national tuna databases, with 15 staff trained in their effective use.
61. The majority of OFP results are project funded (including support from WCPFC for providing agreed services). These include evaluation of management measures; stock assessment for key shark species; bio-economic modelling to predict economic outcomes of management measures; and continued observer training and development of national observer programmes, which should include accreditation of 150 new observers, training of 40 observer debriefers, and accreditation of three new national observer trainers.

62. The 2011 budget is summarised in Table 3.

Table 3: Budget of FAME for 2011 in CFP units

	Director	OFP	CFP	Combined
Recurrent	504,700	1,358,200	1,626,100	3,489,000
Project	205,800	3,289,500	1,767,200	5,262,500
Total	710,500	4,647,700	3,393,300	8,751,500

63. These figures are broadly similar to the 2010 budget presented to CRGA, but project funding is considerably less than in the 2010 revised budget. This reflects the fact that additional project funding is usually secured after the budget has been prepared.
64. In particular, the 2011 budget excludes a number of projects for which signed agreements had not yet been received at the time of preparation. An update on these will be provided during the CRGA presentation, but it seems likely that most, if not all, of the following four projects will be approved and running in 2011.
65. *PNG tuna tagging* – This is a three year project (2011–2014) funded by the PNG NFA in the amount of USD 3 million (2.84 million CFP units). The project will be managed by NFA; but a little under 1/3 of the total funding is earmarked to support technical assistance by OFP staff. The project will implement a major tagging programme and build capacity in PNG for applied research, while benefiting from the systems and experience built up during the Pacific Tuna Tagging Project. It represents a unique investment in tuna science by a developing Pacific Island country. The project agreement was being exchanged for signature in August.
66. *DevFish 2* – This EUR 8.2 million four-year project funded by EU aims to promote tuna industry development in Pacific ACP countries while assisting them to combat IUU fishing. The lead agency is FFA, but activities with a budgeted cost of 3.3 million CFP units will be implemented by SPC. The project financing agreement was signed in December 2009 and the project was intended to run from mid-2010 through 2014, but the agreements with FFA and SPC have been delayed by some administrative problems within the European Commission system.
67. *Regional Fishery Observer Programme* – This project is discussed in paragraph 46. FFA is the lead agency. The total budget for the three-year project is NZD 4.8 million, of which SPC will receive about 60 per cent – approximately 2 million CFP units. Funding approval has been announced, but it has been necessary to rework the project proposal several times.
68. *Fisheries for Food Security* – This four-year project, with a budget of AUD 4.8 million (4.1 million CFP units) will provide scientific services in support of oceanic fishery management measures developed by FFA members. It will also support services in three areas of coastal fisheries: management and development of export fisheries for aquarium fish, development of mariculture opportunities, and assistance to meet export requirements for marine products. The project has passed peer review, and an exchange of letters of agreement is expected in October.
69. Several smaller but significant projects are proceeding through approval processes; most recently two collaborative projects funded by the Pelagic Fisheries Research Programme of the University of Hawai'i were agreed for implementation by SPC and the Inter-American Tropical Tuna Commission (IATTC). These will look at the impacts of ocean acidification on yellowfin tuna, and comparative analysis of data from electronic and conventional tagging.

70. There are also a number of projects that are less advanced, or in which the exact role for FAME and available funding have yet to be confirmed. These include the GTZ climate change adaptation project, an EDF10 project to assist the private sector to produce commodities for trade (which includes an aquaculture component), a further phase of the Oceanic Fisheries Management Project funded by the Global Environment Facility (GEF) and the proposal to FFEM mentioned in paragraph 52. The support of CRGA for these projects is requested.
71. In short, there has been progress in mobilising resources for the work of the programmes in 2011, and the many staff members who have contributed to the design and development of proposals should be commended. However, this will increase the proportion of funding derived from projects. There will be project-funded activities in every section of the division. All of these projects are 3–5 years in duration, and while some will achieve their objectives in this time frame there remains a need for more sustained finance in several areas.

Conclusions

72. 2010 was the first year of a new strategic plan for the FAME Division. Services were generally delivered in line with expectations, although the work of CFP was limited by a lack of resources and some delays in replacing two senior staff in the first three quarters of the year.
73. Both programmes can be expected to deliver additional results in 2011, addressing a number of new issues, provided additional project funding becomes available as expected.

Recommendations

74. CRGA is invited to:
- note the results delivered and the achievements of the division during 2010;
 - approve the outline of the 2011 work programme and endorse in principle the new initiatives proposed, notably:
 - a second phase of the Global Environment Facility project to provide scientific support for oceanic fisheries management;
 - the strong fisheries component of the German Technical Cooperation (GTZ) programme to assist coastal communities to adapt to climate change; and
 - project support from the French Global Environment Facility (FFEM) to build on the achievements of the Coral Reef Initiatives for the Pacific (CRISP) project.

ANNEXES

- Annex 1 – MAIN SECTORAL MEETINGS AND WORKSHOPS
- Annex 2 – MAJOR PUBLICATIONS
- Annex 3 – COUNTRY ACTIVITIES
- Annex 4 – PROGRESS AGAINST STRATEGIC PLAN OBJECTIVES

Significant regional meetings/workshops arranged in 2010

Completed (January to August inclusive)

Pacific Tuna Tagging Programme Mid-Term Review (22–26 February 2010) held in Noumea, New Caledonia

Regional Tuna Stock Assessment Planning Workshop (6–10 April) held in Noumea, New Caledonia

Workshop of experts on vulnerability and adaptation of coastal fisheries to climate change: Monitoring Indicators and Survey Design for Implementation in the Pacific (19–22 April 2010) held in Noumea, New Caledonia

Tuna Data Workshop (26–30 April) held in Noumea, New Caledonia

Regional Debriefers Workshop (15–22 July 2010) held in Cairns, Australia (in collaboration with the National Marine Fisheries Service [NMFS] and WCPFC).

Regional Observer Coordinators Workshop (22–24 July 2010) held in Cairns, Australia (in collaboration with FFA)

Mini Heads of Fisheries Meeting held in Honiara in conjunction with the Forum Fisheries Committee meetings (6 May 2010) held in Honiara, Solomon Islands

Regional workshop on CITES non-detrimental findings for marine listed species (17–20 May 2010) held in Honiara, Solomon Islands

2010 Stock Assessment and Ecosystem & Bycatch Training Workshops (7–21 June 2010) held in Noumea, New Caledonia

SPC Regional Terrestrial and Aquatic Animal Disease Reporting Workshop (21–25 June 2010) held in Nadi, Fiji Islands

Planned (September to December inclusive)

Regional Fisheries Officers Course (October 2010) held in Santo, Vanuatu

Regional workshop on Approaches to the Implementation and Monitoring of Community-based Ecosystem Approach to Fisheries Management: Finding common ground between the coastal fisheries and conservation approaches in the Pacific (29 November to 3 December 2010) held in Noumea, New Caledonia

Regional workshops, Tahiti Aquaculture 2010 (sustainable aquaculture on tropical islands) and shrimp aquaculture in the Pacific (6–11 December 2010), held in Papeete, French Polynesia

Annex 2

Publications produced by or through the Division of Fisheries, Aquaculture and Marine Ecosystems (FAME) for 2010

Publications produced by or for the Director's Office

- Anon. 2010. The future of Pacific Island fisheries – Summary, 8 p. Noumea, New Caledonia: Secretariat of the Pacific Community and Honiara, Solomon Islands: Forum Fisheries Agency.
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- Gillett, R. and Cartwright, I. 2010. The future of Pacific Island fisheries, summary report. Noumea, New Caledonia: Secretariat of the Pacific Community and Honiara, Solomon Islands: Forum Fisheries Agency. 38 p.

Publications produced by or for the CFP

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- Anon. 2010. SPC regional terrestrial and aquatic animal disease reporting workshop report. Noumea, New Caledonia: Secretariat of the Pacific Community.
- Friedman, K., Hampus, E., Tardy, E. and Pakoa, K. In press. Management of sea cucumber stocks: Patterns of vulnerability and recovery of sea cucumber stocks impacted by fishing. *Fish and Fisheries*.
- Johnson, J. 2010. Vulnerability and adaptation of coastal fisheries to climate change: Monitoring indicators and survey design for implementation in the Pacific. Workshop report (19–22 April 2010, Noumea) prepared for the Secretariat of the Pacific Community, Noumea, New Caledonia. 14 p.
- Kinch, J. and Teitelbaum, A. 2010. Proceedings of the regional workshop on the management of sustainable fisheries for giant clams (Tridacnidae) and CITES capacity building (4–7 August 2009, Nadi, Fiji Islands). Noumea, New Caledonia: Secretariat of the Pacific Community. 52 p.
- Kronen, M., Magron, F., McArdle, B. and Vunisea, A. 2010. Reef finfishing pressure risk model for Pacific Island countries and territories. *Fisheries Research* 101:1–10.
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- MRAG Asia Pacific. 2010. Monitoring the vulnerability and adaptation of Pacific coastal fisheries to climate change. Report prepared for the Secretariat of the Pacific Community, Noumea, New Caledonia.
- Picquel, E. and Blanc, M. 2010. Report on a coastal sport fishing training workshop in Aitutaki, Cook Islands (16–23 June 2010). Noumea, New Caledonia: Secretariat of the Pacific Community.
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- Ponia, B. 2010. A review of aquaculture in the Pacific Islands 1998–2007: Tracking a decade of progress through official and provisional statistics. Noumea, New Caledonia: Secretariat of the Pacific Community. 32 p.
- Sokimi, W. 2010. Kiribati nearshore FAD project to support food security (11 March to 4 May 2010). Field Report No. 31, Nearshore Fisheries Development Section. Noumea, New Caledonia: Secretariat of the Pacific Community.

- Sokimi, W. and Beverly, S. In press. Common small craft night baiting methods and some useful night fishing methods of the Pacific Islands: a manual for fishermen (produced in both English and French). Noumea, New Caledonia: Secretariat of the Pacific Community.
- SPC. 2010. A community-based ecosystem approach to fisheries management: guidelines for Pacific Island countries. Noumea, New Caledonia: Secretariat of the Pacific Community. 54 p.

Publications partly funded by the CRISP programme

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- Calas, J. April 2010: CRISP programme supervisory mission. 21 p.
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- Egretaud, C. 2010. Plan de gestion des espaces lagunaires du lagon de Aitutaki, Iles Cook. 28 p.
- Faninoz, S. 2010. *Journal des Aires Marines Protégées de la côte Nord-Est, Nouvelle Calédonie*. French version.
- Frédérich, B., Lecchini, D. and Vandewalle, P. 2010. Evidence of an original scale development during the settlement phase of a coral reef fish (*Acanthurus triostegus*). *Journal of Applied Ichthyology* 26(2010) :176–178.
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- Jimenez, H., Dumas, P., Bigot, L., Amouroux, J. M. and Ferraris, J. In press. Taxonomic resolution needed to describe invertebrate assemblages and to detect harvesting effects on coral reef ecosystems. *Marine Ecology Progress Series*.
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Fisheries bulletins and newsletters

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- SPC Fisheries Newsletter #131 (January–April 2010), versions in English and French
- SPC Fisheries Newsletter #132 (May–August 2010), version in English
- SPC Live Reef Fish Information Bulletin #19, version in English
- SPC Sea Safety Information Bulletin #6, version in English
- SPC Traditional Marine Resource Management and Knowledge Information Bulletin #25, version in French
- SPC Traditional Marine Resource Management and Knowledge Information Bulletin #26, version in French
- SPC Traditional Marine Resource Management and Knowledge Information Bulletin #27, version in English
- SPC Trochus Information Bulletin #15, versions in English and French
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- Anon. 2009. Longline terminal gear identification guide; plastic cards produced in both English and French. Noumea, New Caledonia: Secretariat of the Pacific Community.
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- Anon. 2010. Sea turtle species identification cards (updated version). Plastic cards produced in English. Noumea, New Caledonia: Secretariat of the Pacific Community.
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- Anon. 2010. Satellite imagery for fish finding. Brochure produced in both English and French. Noumea, New Caledonia: Secretariat of the Pacific Community.

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Publications produced in collaboration with or for member countries and territories

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- Anon. 2010. Tonga Aquaculture Commodity Development Plan 2010–2014. Noumea, New Caledonia: Secretariat of the Pacific Community. 31 p.
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- WCPFC Tuna Fishery Yearbook 2009 – PROVISIONAL Date of Issue: 26 July 2010
- Harley, S., Williams, Nicol, S. and Hampton, J. 2010. The western and central Pacific tuna fishery: 2007–2008 overview and status of stocks. Tuna Fisheries Assessment Report No. 9. Noumea, New Caledonia: Secretariat of the Pacific Community.
- Dambacher, J.M., Young, J.W., Olson, R.J., Allain, V., Galván-Magaña, F., Lansdell, M.J., Bocanegra-Castillo, N., Alatorre-Ramírez, V., Cooper, S.P. and Duffy, L.M. 2010. Analyzing pelagic food webs leading to top predators in the Pacific Ocean: A graph-theoretic approach. *Progress in Oceanography* 86:152–165.
- Morato, T., Hoyle, S.D., Allain, V. and Nicol, S.J. 2010. Seamounts are hotspots of pelagic biodiversity in the open ocean. *Proceedings of the National Academy of Sciences* 107(21):9707–9711.
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6th Session of the Scientific Committee of WCPFC

- GN-WP-1. Williams, P. and Terawasi, P. Overview of tuna fisheries in the western and central Pacific Ocean, including economic conditions – 2009. SPC and FFA.
- GN-IP-4. S. Nicol, A. Lewis, D. Itano, T. Usu, B. Kumasi, B. Leroy, S. Caillot, C. Sanchez, J. Hampton Pacific Tuna Tagging Project progress report and work plan for 2010.
- GN-IP-6. Williams, A. and Nicol, S. South Pacific albacore tagging – progress report.
- BI-WP-01. Farley, J., Williams, A., Davies, C. and Nicol, S. Regional study of South Pacific Albacore population biology: Year 2 – biological sampling and analysis.
- BI-WP-03. S. Nicol et al. Bigeye tuna age, growth and reproductive biology (Project 35) – progress report. Rev. 1.

- EB-WP-01. Clarke, S. and Harley, S.J. A proposal for a research plan to determine the status of the key shark species.
- EB-IP-01. Filippi, D., Waugh, S. and Nicol, S. Revised spatial risk indicators for seabird interactions with longline fisheries in the western and central Pacific.
- EB-IP-02. Lehodey, P. et al. Project 62: SEAPODYM applications in WCPO – progress report.
- EB-IP-06. Fitzsimmons, L. WCPFC Bycatch Information System (BMIS).
- EB-IP-07. OFP. Non-target species interactions with the tuna fisheries of the western and central Pacific Ocean.
- EB-IP-10. Allain, V. Trophic structure of the pelagic ecosystems of the western and central Pacific Ocean.
- FT-IP-01. Leroy, B. et al. Vertical behavior and the Observation of FAD effects on tropical tuna in the warm-pool of the western Pacific Ocean.
- MI-WP-01. Davies, N. and Harley, S.J. Stochastic and deterministic projections: A framework to evaluate the potential impacts of limit reference points, including multi-species considerations.
- MI-WP-03. Williams, P. and Harley, S. Characterization of purse seine fishing activities during the 2009 FAD closure.
- ME-WP-01. Davies, N. et al. Update of recent developments in MULTIFAN-CL and related software for stock assessment.
- ST-WP-01. Williams, P. Scientific data available to the Western and Central Pacific Fisheries Commission. Rev. 3.
- ST-WP-02. Lawson, T. An update on the species composition of purse-seine catches determined from paired spill and grab samples collected by observers.
- ST-IP-01. Williams, P. Estimates of annual catches in the WCPFC Statistical Area.
- ST-IP-02. Harley, S.J. and Lawson, T. Preliminary analysis of the spatial distribution of juvenile bigeye tuna catches from equatorial WCPO purse seine.
- ST-IP-04. Lawson, T. Effect of unit of effort on analyses of observer coverage rates.
- SA-WP-01. Harley, S. et al. Background information for the 2010 bigeye assessment.
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- SA-WP-04. Harley, S. et al. Stock assessment of bigeye tuna in the western and central Pacific Ocean.
- SA-WP-05. Hampton, J., Harley, S.J. Further analysis of CMM2008-01.
- SA-WP-08. Langley, A. et al. Standardized CPUE for skipjack caught by Japanese offshore pole and line fishery in the northern region of western and central Pacific Ocean.
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Other reports or publications

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- OFP. 2010. Status of the stock report. FFC74/IP5, Honiara, Solomon Islands.

Annex 3

Country specific activities with costings including those covered by a joint country strategy (JCS)

*Note that this is a preliminary listing – costings, where provided, are only estimates.
An accurate statement will be prepared after the end of the year, when activities have been completed and full financial records for the year are available.*

Country	Activities for 2010 (completed (January to August inclusive) and planned (September to December) (* indicates activities covered by JCS)	Staff time, work days	Non-staff costs (CFP)
American Samoa Draft JCS: 2009–2013	Completed		
	• Gear, equipment and boat charges/compensation for large circle hook study (through Western Pacific Regional Fisheries Management Council [WPRFMC] funding)	3	2,753,100
	• *Technical assistance and fieldwork with implementing the large circle hook study (two trips through WPRFMC funding)	65	1,434,520
	• *Technical assistance with finalising the community-based ecosystem approach to fisheries management model	8	279,368
	• 1 participant funded to be part of steering committee meetings for the future of fisheries study	Nil	509,000
	• Operational support (forms, data processing) for port sampling of domestic longliners	0.2	80,800
	Planned		
• *2 participants funded to regional workshop on community-based fisheries management at SPC Noumea	Nil	500,000	
Cook Islands JCS: 2007–2010	Completed		
	• *Technical assistance with coordinating bonefish management plan consultations in Aitutaki	6	220,000
	• *Technical assistance with drafting Bonefish Fishery Management Plan	7	Nil
	• *Technical assistance with training in Aitutaki for guides for the sport fishing project	8	365,340
	• *Funding of a consultant and travel to undertake the training in Aitutaki for the sport fishing project	Nil	961,000
	• *Provided comments and advice on draft sea safety legislation	1	Nil
	• *Attachment training for one person in Suva in publication design and layout	15	413,540
	• *NTFSR in progress	20	Nil
	• * In-country management consultation	7	220,000
	• Participation in online stock assessment revision	1	Nil
	• Processing of domestic longline data	0.3	Nil
	• * Support of national tuna database system	24.6	119,700
	• Support to Regional Observer Coordinators Workshop	0.5	Nil
	• Attendance at stock assessment refresher workshop	0.5	Nil
	• Attendance at pre-assessment technical workshop	1	300,000
	Planned		
• *1 participant funded to Tahiti Aquaculture 2010 and shrimp workshop in Papeete, French Polynesia	Nil	307,300	
• *Partial funding of 1 participant to attend UN Food and Agriculture Organization (FAO) Global Aquaculture Conference in Thailand	Nil	398,000	
• *2 participants funded to attend the SPC practical safety and fishing course for fisheries officers in Santo, Vanuatu	Nil	100,000	

Country	Activities for 2010 (completed (January to August inclusive) and planned (September to December) (* indicates activities covered by JCS)	Staff time, work days	Non-staff costs (CFP)
	<ul style="list-style-type: none"> *2 participants funded to regional workshop on community-based fisheries management at SPC Noumea Provision of in-meeting support at WCPFC Scientific Committee (SC) and WCPFC Annual Session 	<p>Nil</p> <p>3.7</p>	<p>510,000</p> <p>55,600</p>
Federated States of Micronesia	Completed	23	665,010
	<ul style="list-style-type: none"> *Technical assistance with implementing community-based ecosystem approach to fisheries management in Pohnpei and development of management plan for the trochus fishery in Kosrae 	12	537,428
JCS: 2008–2012	<ul style="list-style-type: none"> *Technical assistance with hands-on training in finfish survey methodologies in Pohnpei *Funding of 3 participants (1 Chuuk, 2 Yap) to attend finfish survey methodology training in Pohnpei *Technical assistance with the development of post larval capture and culture *Technical assistance with the running of FAD fishing skills workshops *Technical assistance with developing a photoquad analysis tool for coral reef monitoring *Advice provided for the trochus management plan * Attendance at stock assessment/ecological risk assessment (ERA) workshop Processing of domestic and foreign licensed tuna fisheries data * Support of national tuna database system * Assistance with national tuna data coordination * Attendance at Tuna Data Workshop Support to Regional Observer Coordinators Workshop * 2 national observer training course (Jan.–Feb. and Jun.–Jul.) and 1 subregional (Nov.–Dec.) National Tuna Data Workshop 	<p>Nil</p> <p>7</p> <p>12</p> <p>20</p> <p>3</p> <p>3</p> <p>8.4</p> <p>24.6</p> <p>30</p> <p>2</p> <p>0.5</p> <p>48</p> <p>21</p>	<p>855,055</p> <p>425,000</p> <p>573,000</p> <p>Nil</p> <p>Nil</p> <p>485,225</p> <p>3,709,300</p> <p>Nil</p> <p>721,300</p> <p>430,100</p> <p>Nil</p> <p>1,660,700</p> <p>Nil</p>
	Planned	5	257,400
	<ul style="list-style-type: none"> *Technical assistance and deployment of water temperature logging equipment (climate change project) *Production and launching of Fisheries Management Plan for the island of Pakin, Pohnpei, FSM * Provision of in-meeting support at WCPFC SC and WCPFC Annual Session *1 participant funded to attend the SPC practical safety and fishing course for fisheries officers in Santo, Vanuatu 2 participants funded to regional workshop on community-based fisheries management at SPC Noumea (Planned) Setup new server and TUFMAN v6 in Pohnpei/Training 	<p>5</p> <p>5</p> <p>3.7</p> <p>Nil</p> <p>Nil</p> <p>10</p>	<p>500,000</p> <p>55,600</p> <p>380,000</p> <p>650,000</p> <p>4,600,000</p>
Fiji Islands	Completed	22	403,770
	<ul style="list-style-type: none"> Participation in the joint country strategy mission to Fiji by 3 staff (1 Suva- and 2 Noumea-based) Technical assistance with the review of aquaculture legislation and decree Technical assistance with the designing and implementing of a fish-prawn farm pond inventory and farmer questionnaire Supervision of 5 Masters students at USP Technical assistance with managing the process to translate the SPC tilapia manual into Fijian and have manual printed 	<p>5</p> <p>3</p> <p>15</p> <p>10</p>	<p>Nil</p> <p>Nil</p> <p>Nil</p> <p>Nil</p>

Country	Activities for 2010 (completed (January to August inclusive) and planned (September to December) (* indicates activities covered by JCS)	Staff time, work days	Non-staff costs (CFP)
	<ul style="list-style-type: none"> • Ongoing provision of advice and answering queries from ministry and the private sector on aquaculture issues • Funding of 1 participant to vulnerability and adaptation of coastal fisheries to climate change workshop in Noumea • 2 participants funded to subregional workshop on CITES non-detrimental findings in Honiara • Attendance at stock assessment/ERA workshop • Processing of domestic longline data • Assistance with national tuna data coordination • Support to Regional Observer Coordinators Workshop • Attendance at Tuna Data Workshop <p>Planned</p> <ul style="list-style-type: none"> • Technical assistance with review of Fiji inshore fisheries legislation • Technical assistance with planning and logistics for sea cucumber spawning activities • Partial funding of 1 participant to attend FAO Global Aquaculture Conference in Thailand • 1 participant funded to attend the SPC practical safety and fishing course for fisheries officers in Santo, Vanuatu • Attachment training in Fiji for desktop publishing • 2 participants funded to regional workshop on community-based fisheries management at SPC Noumea • 1 participant funded to Tahiti Aquaculture 2010 and shrimp workshop in Papeete, French Polynesia • Inputs to ecosystem approach to fisheries management (EAFM) (probable – not confirmed) • Participation in online stock assessment revision • Provision of in-meeting support at WCPFC SC and WCPFC Annual Session • Support of national tuna database system 	<ul style="list-style-type: none"> 5 Nil Nil 3 0.2 8 0.5 2 6 3 Nil Nil 15 Nil Nil 10 1.0 3.7 24.6 	<ul style="list-style-type: none"> Nil 221,950 394,000 235,900 72,700 120,000 Nil 291,300 146,032 Nil 100,000 125,000 220,000 460,000 343,500 250,000 Nil 55,600 200,000
<p>French Polynesia</p> <p>Draft JCS: 2010–2014</p>	<p>Completed</p> <ul style="list-style-type: none"> • *Funding for printing sea safety cards in Tahitian and Marquesan • *Technical advice provided on fish silage production • *2 participants funded to subregional workshop on CITES non-detrimental findings in Honiara • 1 participant funded to be part of steering committee meetings for the future of fisheries study <p>Planned</p> <ul style="list-style-type: none"> • *Technical assistance tentatively planned for tuna grading workshop, possibly using a consultant • *Funding 12 resource and support people to Tahiti Aquaculture Conference and marine shrimp workshop • *Attendance, preparation and participation of 3 staff in the Tahiti aquaculture conference and shrimp workshop • Funding of 1 participant to a training on diagnosis and management of health problems in sea cage aquaculture • *2 participants funded to regional workshop on community-based fisheries management at SPC Noumea • Provision of in-meeting support at WCPFC SC and WCPFC Annual Session • Operational support for observer and port sampling of domestic longliners 	<ul style="list-style-type: none"> 4 1 Nil Nil 2 20 20 Nil Nil 3.7 Full time 	<ul style="list-style-type: none"> 240,000 Nil 692,000 252,000 420,000 3,555,000 1,180,000 164,000 540,000 55,600 18,401,500

Country	Activities for 2010 (completed (January to August inclusive) and planned (September to December) (* indicates activities covered by JCS)	Staff time, work days	Non-staff costs (CFP)
Guam Draft JCS: 2010–2014	Completed	5	205,000
	<ul style="list-style-type: none"> • Participation of one staff in the JCS consultations to represent the coastal fisheries programme 	3	350,000
	<ul style="list-style-type: none"> • Attendance at stock assessment/ERA workshop 	Nil	330,000
	Planned	Nil	330,000
	<ul style="list-style-type: none"> • *1 participant funded to attend marine shrimp workshop as part of Tahiti Aquaculture conference • Funding assistance to publish the draft Aquaculture Development Plan • *2 participants funded to regional workshop on community-based fisheries management at SPC Noumea 	2 Nil	100,000 530,000
Kiribati JCS: 2008–2011	Completed	10	276,065
	<ul style="list-style-type: none"> • *Technical assistance with the assessment and development of a management plan for Nonouti Island bonefish recreational fishery 	15	582,994
	<ul style="list-style-type: none"> • *Technical assistance and fieldwork for marine aquarium fish in Kiritimati 	1	844,718
	<ul style="list-style-type: none"> • *Funding of 2 local attachments for hands-on training in marine aquarium fish work in Kiritimati 	1	285,101
	<ul style="list-style-type: none"> • *Funding of short-term consultancy for the marine aquarium fish industry in Kiritimati 	5	476,220
	<ul style="list-style-type: none"> • *Attachment training in Noumea for 1 staff involved with the marine aquarium fish work in Kiritimati 	10	284,865
	<ul style="list-style-type: none"> • *Technical assistance with developing a community-based ecosystem approach to fisheries management programme 	45	777,650
	<ul style="list-style-type: none"> • *Technical assistance with the rigging and deploying of FADs around 11 islands in the Gilberts group 	8	310,500
	<ul style="list-style-type: none"> • *Technical assistance with growth and survival of hatchery produced white teatfish, juveniles released in the wild 	3	Nil
	<ul style="list-style-type: none"> • *Advice and support on the use of socioeconomic survey software 	3	304,500
	<ul style="list-style-type: none"> • *Attendance to stock assessment/ERA workshop 	Nil	120,000
	<ul style="list-style-type: none"> • Tagging cruise in the central Pacific with about 60% of the fishing time in Kiribati waters (Line and Phoenix Islands) 	Nil	120,000
	Planned	12	323,000
	<ul style="list-style-type: none"> • *Technical assistance with small-boat sea safety, FAD fishing skills workshop, and deployment of FADs in Nonouti lagoon 	12	550,000
	<ul style="list-style-type: none"> • *Technical assistance with lagoon FADs (including materials) and developing community FADs as management alternatives 	Nil	340,000
	<ul style="list-style-type: none"> • *1 participant funded to attend the SPC practical safety and fishing course for fisheries officers in Santo, Vanuatu 	Nil	460,000
	<ul style="list-style-type: none"> • *2 participants funded to regional workshop on community-based fisheries management at SPC Noumea 	3.7	55,600
<ul style="list-style-type: none"> • Provision of in-meeting support at WCPFC SC and WCPFC Annual Session 	2.9	1,299,000	
<ul style="list-style-type: none"> • Processing of domestic longline observer and port sampling data 	2.9	70,000	
<ul style="list-style-type: none"> • Assistance with national tuna data coordination 	24.6	200,000	
<ul style="list-style-type: none"> • Support of national tuna database system 	16	52,000	
<ul style="list-style-type: none"> • Tagging cruise in the central Pacific area with about 40% of the fishing in Kiribati waters (Phoenix and Gilbert Islands) 	16	52,000	
Marshall Islands	Completed <ul style="list-style-type: none"> • *Technical assistance with training in the rigging and deployment of FADs 	11	466,780

Country	Activities for 2010 (completed (January to August inclusive) and planned (September to December) (* indicates activities covered by JCS)	Staff time, work days	Non-staff costs (CFP)
JCS: 2008–2010	• *Technical assistance with the development of community-based ecosystem approach to fisheries guidelines and the development of fisheries management ordinances	13	592,630
	• *1 participant funded to subregional workshop on CITES non-detrimental findings in Honiara	Nil	384,000
	• *Attendance at pre-assessment technical workshop	1	300,000
	Planned		
	• *Technical assistance with small-boat sea safety and FAD fishing skills workshop	12	411,000
	• *1 participant funded to Tahiti Aquaculture 2010 and shrimp workshop in Papeete, French Polynesia	Nil	443,500
	• *1 participant funded to attend the SPC practical safety and fishing course for fisheries officers in Santo, Vanuatu	Nil	400,000
• *2 participants funded to regional workshop on community-based fisheries management at SPC Noumea	Nil	550,000	
Nauru JCS: 2008–2010	Completed		
	• Data summaries provided for access negotiations	2	Nil
	• Provision of in-meeting support at WCPFC SC and WCPFC Annual Session	3.7	55,600
	• *Attendance to stock assessment/ERA workshop	3	370,400
	• Attendance at Tuna Data Workshop	2	440,500
	• Provide advice and assistance to Masters student	Ongoing	Nil
	• National Tuna Data Workshop	5	Nil
	Planned		
	• *Technical assistance with small-boat sea safety, search and rescue and deployment of 1 FAD	10	323,000
	• Technical assistance through a consultancy to conduct a refresher course on canoe building in Nauru	2	1,200,000
	• * Technical assistance with review of human resource development (HRD) plan for NFMRA staff	5	250,000
	• *Partial funding of 1 participant to attend FAO Global Aquaculture Conference in Thailand	Nil	100,000
	• *1 participant funded to attend the SPC practical safety and fishing course for fisheries officers in Santo, Vanuatu	Nil	256,000
	• *2 participants funded to regional workshop on community-based fisheries management at SPC Noumea	Nil	500,000
	• Setup TUFMAN v6 in-country/training	5	242,300
	• Participation in online stock assessment revision	1	Nil
• Processing of foreign licensed tuna fisheries data	1.2	531,200	
• * Support of national tuna database system	24.6	200,000	
• Assistance with national tuna data coordination	10.7	Nil	
• * 1 subregional observer training course (November–December)	Nil	800,000	
New Caledonia	Completed		
	• Technical assistance with large circle hook exchange project in North Province (consultant from Hawaii)	15	526,700
	• Technical advice provided on fish silage production	3	Nil
	• 1 participant funded to subregional workshop on CITES non-detrimental findings in Honiara	Nil	277,000
	• Assistance with national tuna data coordination	2.5	30,000
• Processing of domestic longline observer and port sampling data	6.5	2,848,600	

Country	Activities for 2010 (completed (January to August inclusive) and planned (September to December) (* indicates activities covered by JCS)	Staff time, work days	Non-staff costs (CFP)
	<ul style="list-style-type: none"> • Operational support for observer and port sampling of domestic longliners • Albacore tagging in New Caledonia waters <p>Planned</p> <ul style="list-style-type: none"> • Technical assistance with fishing trials using tilapia as bait for tuna longlining • Technical assistance with presenting on database development to standardise environmental data collection • Provision of in-meeting support at WCPFC SC and WCPFC Annual Session • 2 participants funded to Tahiti Aquaculture 2010 and shrimp workshop in Papeete, French Polynesia • 6 participants attending regional workshop on community-based fisheries management at SPC Noumea • Support of national tuna database system (including one in-country visit • Tuna Observer system installation and training) • Attendance at Tuna Data Workshop 	<p>Full time</p> <p>20</p> <p>12</p> <p>1</p> <p>3.7</p> <p>Nil</p> <p>Nil</p> <p>24.6</p> <p>3</p> <p>2</p>	<p>11,266,500</p> <p>2,200,000</p> <p>120,000</p> <p>Nil</p> <p>55,600</p> <p>677,000</p> <p>Nil</p> <p>200,000</p> <p>Nil</p> <p>Nil</p>
New Zealand	<p>Completed</p> <ul style="list-style-type: none"> • Albacore tagging in New Zealand waters 	30	5,980,000
Niue JCS: 2009–2013	<p>Completed</p> <ul style="list-style-type: none"> • *Technical assistance with the revision of Niue’s Fisheries Act, inshore coastal component • *Advice provided for both community-based fisheries management and invertebrate resource surveys • Technical advice provided on fish silage production • Attendance at stock assessment/ERA workshop (2 people) • Participation in online stock assessment revision • * Support of national tuna database system • Setup new server in Niue, TUFMAN V6 / training • Processing of domestic and foreign licensed tuna fisheries data • Assistance with national tuna data coordination • Attendance at Tuna Data Workshop • Albacore tagging in Niue waters <p>Planned</p> <ul style="list-style-type: none"> • *2 participants funded to regional workshop on community-based fisheries management at SPC Noumea • Provision of in-meeting support at WCPFC SC and WCPFC Annual Session • Assistance with artisanal tuna catch monitoring (deferred late 2010) 	<p>7</p> <p>2</p> <p>1</p> <p>3</p> <p>1</p> <p>24.6</p> <p>9</p> <p>0.1</p> <p>8.5</p> <p>2</p> <p>9</p> <p>Nil</p> <p>3.7</p> <p>5</p>	<p>256,727</p> <p>Nil</p> <p>Nil</p> <p>753,200</p> <p>Nil</p> <p>200,000</p> <p>340,400</p> <p>59,300</p> <p>291,600</p> <p>312,300</p> <p>3,570,000</p> <p>480,000</p> <p>55,600</p> <p>Nil</p>
Northern Mariana Islands JCS: 2009–2013	<p>Completed</p> <ul style="list-style-type: none"> • *Technical assistance with organising and running a national aquaculture planning workshop (two people) • *Consultancy and travel for the development of an aquaculture strategic plan for the Commonwealth of the Northern Mariana Islands (CNMI) • 1 participant funded to be part of steering committee meetings for the future of fisheries study <p>Planned</p> <ul style="list-style-type: none"> • *Final payment of consultancy to develop an aquaculture strategic plan 	<p>5</p> <p>Nil</p> <p>Nil</p> <p>Nil</p>	<p>587,350</p> <p>497,000</p> <p>217,000</p> <p>300,000</p>

Country	Activities for 2010 (completed (January to August inclusive) and planned (September to December) (* indicates activities covered by JCS)	Staff time, work days	Non-staff costs (CFP)
	<ul style="list-style-type: none"> *1 participant funded to Tahiti Aquaculture 2010 and shrimp workshop in Papeete, French Polynesia *2 participants funded to regional workshop on community-based fisheries management at SPC Noumea 	Nil Nil	393,500 500,000
Palau JCS: 2009–2013	<p>Completed</p> <ul style="list-style-type: none"> Participation in online stock assessment revision Setup new server and TUFMAN v6 in Palau / training *2 participants funded to subregional workshop on CITES non-detrimental findings in Honiara Attend and present at second Palau International Coral Reef Center (PICRC)/ Japan International Cooperation Agency (JICA) coral reef monitoring project meeting Funding of one participant to vulnerability and adaptation of coastal fisheries to climate change workshop in Noumea Processing of foreign licensed tuna fisheries data Support of national tuna database system Assistance with national tuna data coordination Support to Tuna Data Workshop <p>Planned</p> <ul style="list-style-type: none"> *1 participant funded to Tahiti Aquaculture 2010 and shrimp workshop in Papeete, French Polynesia *2 participants funded to regional workshop on community-based fisheries management at SPC Noumea Provision of in-meeting support at WCPFC SC and WCPFC Annual Session Training for biological sampling for observers and port samplers 	1 5 Nil 5 Nil 1.6 24.6 7.5 0.5 Nil Nil 3.7 7	Nil 383,500 721,000 294,999 283,300 701,400 200,000 88,300 Nil 245,500 540,000 383,500 385,400
Papua New Guinea	<p>Completed</p> <ul style="list-style-type: none"> 1 participant funded to subregional workshop on CITES non-detrimental findings in Honiara Attachment training at SPC for 1 person from National Maritime Safety Authority (NMSA) covering sea safety issue Attendance at stock assessment/ERA workshops (2 people) Participation in online stock assessment revision Processing of domestic and foreign licenced tuna fisheries data Attendance at Tuna Data Workshop Assistance with national tuna data coordination <p>Planned</p> <ul style="list-style-type: none"> Technical assistance with reviewing the current aquarium fish trade operations and approach 1 participant funded to attend the SPC practical safety and fishing course for fisheries officers in Santo, Vanuatu Partial funding of 1 participant to attend FAO Global Aquaculture Conference in Thailand Participation of staff in the development of FAME component of the JCS for PNG 1 participant funded to Tahiti Aquaculture 2010 and shrimp workshop in Papeete, French Polynesia 2 participants funded to regional workshop on community-based fisheries management at SPC Noumea (Planned) - Setup new scanning system in PNG / training Provision of in-meeting support at WCPFC SC and WCPFC Annual Session 	Nil 4 3 1 12.8 4 5 10 Nil Nil 10 Nil Nil 3 3.7	329,000 Nil 694,200 Nil 5,626,400 340,400 Nil 450,000 283,000 100,000 500,000 453,500 460,000 250,000 55,600

Country	Activities for 2010 (completed (January to August inclusive) and planned (September to December) (* indicates activities covered by JCS)	Staff time, work days	Non-staff costs (CFP)
	<ul style="list-style-type: none"> Attendance at Regional Observer Coordinators Workshop Provision of ad hoc tuna fishery data summaries for internal studies Training support at 3 observer training courses 	1.5 3 66	332,800 Nil 1,190,700
Pitcairn Islands JCS: 2009–2013	<p>Planned</p> <ul style="list-style-type: none"> 2 participants funded to regional workshop on community-based fisheries management at SPC Noumea 	Nil	300,000
Samoa Draft JCS: 2010–2013	<p>Completed</p> <ul style="list-style-type: none"> *Technical assistance with the finalisation of a community-based ecosystem approach to fisheries management model *Technical assistance with initial consultations for the development of a national coastal fisheries plan and finalise Fisheries Bill *Technical assistance with the rigging and deploying of 6 FADs Funding of one participant to vulnerability and adaptation of coastal fisheries to climate change workshop in Noumea *2 participants funded to subregional workshop on CITES non-detrimental findings in Honiara NTFSR completed Support of national tuna database system Assistance with national tuna data coordination Attendance at Tuna Data Workshop *Attendance to stock assessment/ERA workshop <p>Planned</p> <ul style="list-style-type: none"> *1 participant funded to Tahiti Aquaculture 2010 and shrimp workshop in Papeete, French Polynesia *2 participants funded to regional workshop on community-based fisheries management at SPC Noumea Provision of in-meeting support at WCPFC SC and WCPFC Annual Session Attendance at Regional Observer Coordinators Workshop 	10 10 12 Nil Nil 15 24.6 5 2 3	295,428 240,125 307,000 206,550 652,000 Nil 200,000 22,500 221,400 301,200
Solomon Islands JCS: 2009–2012	<p>Completed</p> <ul style="list-style-type: none"> *Technical assistance with stakeholder consultations on the possible introduction of the genetically improved farmed tilapia (GIFT) *Layout and printing of draft tilapia management plan for in-country stakeholder consultations Processing of domestic and foreign licensed tuna fisheries data Setup TUFMAN v6 in-country/training * Support of national tuna database system Assistance with national tuna data coordination *Attendance to stock assessment/ERA workshop <p>Planned</p> <ul style="list-style-type: none"> *Technical assistance with initial stage of FAD programme in sourcing materials for up to 30 inshore FADs *Funding a consultancy to undertake a risk assessment of introducing the GIFT tilapia to areas of the Solomon Islands where tilapia are already found *Technical assistance with developing regulations in support of the new Fisheries Act 	5 5 5 3 24.6 15 3	Nil 53,750 2,195,100 150,000 200,000 375,000 319,000
	<ul style="list-style-type: none"> *Technical assistance with initial stage of FAD programme in sourcing materials for up to 30 inshore FADs *Funding a consultancy to undertake a risk assessment of introducing the GIFT tilapia to areas of the Solomon Islands where tilapia are already found *Technical assistance with developing regulations in support of the new Fisheries Act 	3 2 3	1,500,000 1,500,000 Nil

Country	Activities for 2010 (completed (January to August inclusive) and planned (September to December) (* indicates activities covered by JCS)	Staff time, work days	Non-staff costs (CFP)
	<ul style="list-style-type: none"> • *1 participant funded to Tahiti Aquaculture 2010 and shrimp workshop in Papeete, French Polynesia • *2 participants funded to regional workshop on community-based fisheries management at SPC Noumea • Provision of in-meeting support at WCPFC SC and WCPFC Annual Session • Support to Regional Observer Coordinators Workshop 	<p>Nil</p> <p>Nil</p> <p>3.7</p> <p>0.5</p>	<p>373,000</p> <p>500,000</p> <p>55,600</p> <p>Nil</p>
<p>Tokelau</p> <p>Draft JCS: 2008–2010</p>	<p>Completed</p> <ul style="list-style-type: none"> • *Technical assistance with the development of an inshore fisheries data collection system for fish leaving Tokelau including creel and household surveys • * Technical assistance with input provided to the tuna fishery development plan in collaboration with FFA • *Technical advice provided on FAD technologies, fishing skills and sea safety • Attendance at stock assessment/ERA workshop • EAFM and TMP inputs and reviews • NTFSR completed • Participation in online stock assessment revision • Attachment to work on NTFSR • Assistance with national tuna data coordination • Assistance with WCPFC data submission • 1 tuna statistics attachment <p>Planned</p> <ul style="list-style-type: none"> • *2 participants funded to regional workshop on community-based fisheries management at SPC Noumea • Provision of in-meeting support at WCPFC SC and WCPFC Annual Session • Tagging cruise in the central Pacific area with about 10% of the time in Tokelau waters 	<p>8</p> <p>2</p> <p>2</p> <p>3</p> <p>20</p> <p>20</p> <p>1</p> <p>5</p> <p>1.5</p> <p>1</p> <p>2</p> <p>Nil</p> <p>3.7</p> <p>4</p>	<p>141,725</p> <p>Nil</p> <p>Nil</p> <p>350,000</p> <p>400,000</p> <p>Nil</p> <p>Nil</p> <p>200,000</p> <p>25,000</p> <p>Nil</p> <p>379,000</p> <p>500,000</p> <p>55,600</p> <p>13,000</p>
<p>Tonga</p> <p>JCS: 2009–2013</p>	<p>Completed</p> <ul style="list-style-type: none"> • *Technical assistance with monitoring of the live rock coral farming project • Participation in online stock assessment revision • * Attendance at stock assessment/ERA workshop • * Support of national tuna database system • Processing of domestic longline data • TUFMAN v6 installation/training (one in-country visit) • * Assistance with national tuna data coordination • * Attendance at Tuna Data Workshop • Albacore tagging in Tongan waters <p>Planned</p> <ul style="list-style-type: none"> • *Technical assistance with conducting surveys for trochus and beche-de-mer • *Technical assistance with conducting an initial assessment of deep-water snapper fishing data • *Finalise Community-based Ecosystem Approach to Fisheries Management (CEAFM) model and review CEAFM programme • *Partial funding of 1 participant to attend FAO Global Aquaculture Conference in Thailand • *1 participant funded to Tahiti Aquaculture 2010 and shrimp workshop in Papeete, French Polynesia 	<p>13</p> <p>1</p> <p>3</p> <p>24.6</p> <p>0.9</p> <p>5</p> <p>10</p> <p>2</p> <p>12</p> <p>12</p> <p>5</p> <p>10</p> <p>Nil</p> <p>Nil</p>	<p>224,540</p> <p>Nil</p> <p>319,100</p> <p>200,000</p> <p>401,700</p> <p>240,000</p> <p>21,000</p> <p>247,300</p> <p>3,575,000</p> <p>1,000,000</p> <p>Nil</p> <p>280,000</p> <p>100,000</p> <p>393,500</p>

Country	Activities for 2010 (completed (January to August inclusive) and planned (September to December) (* indicates activities covered by JCS)	Staff time, work days	Non-staff costs (CFP)
	<ul style="list-style-type: none"> *2 participants funded to regional workshop on community-based fisheries management at SPC Noumea Provision of in-meeting support at WCPFC SC and WCPFC Annual Session Support to Regional Observer Coordinators Workshop 	<p>Nil</p> <p>3.7</p> <p>0.5</p>	<p>500,000</p> <p>55,600</p> <p>Nil</p>
Tuvalu JCS: 2008–2012	<p>Completed</p> <ul style="list-style-type: none"> *Technical assistance with review of the tuna management and development plan and legislation * NTFSR in progress Participation in online stock assessment revision Setup new network and TUFMAN v6 in Tuvalu/training Processing of foreign licensed tuna fisheries data Assistance with national tuna data coordination * Support of national tuna database system Attendance at Tuna Data Workshop 1 tuna statistics attachment <p>Planned</p> <ul style="list-style-type: none"> *Technical assistance with capacity building in rigging and deploying 8 FADs, around 4 atolls *1 participant funded to attend the SPC practical safety and fishing course for fisheries officers in Santo, Vanuatu *2 participants funded to regional workshop on community-based fisheries management at SPC Noumea * Data summaries for access negotiations provided Provision of in-meeting support at WCPFC SC and WCPFC Annual Session Attendance at Regional Observer Coordinators Workshop Tagging cruise in the central Pacific area with about 20% of the time in Tuvalu waters 	<p>8</p> <p>20</p> <p>1</p> <p>7</p> <p>1.3</p> <p>10.7</p> <p>24.6</p> <p>2</p> <p>2</p> <p>12</p> <p>Nil</p> <p>Nil</p> <p>1</p> <p>3.7</p> <p>1.5</p> <p>8</p>	<p>246,130</p> <p>Nil</p> <p>Nil</p> <p>375,000</p> <p>555,400</p> <p>607,500</p> <p>200,000</p> <p>311,000</p> <p>388,700</p> <p>323,000</p> <p>294,000</p> <p>500,000</p> <p>Nil</p> <p>55,600</p> <p>269,300</p> <p>26,000</p>
Vanuatu Draft JCS: 2010–2015	<p>Completed</p> <ul style="list-style-type: none"> *Technical assistance with the sustainable and improved farming of <i>Macrobrachium lar</i> *Funding of a local counterpart for fieldwork on the sustainable and improved farming of <i>Macrobrachium lar</i> *Technical assistance with input to an overarching strategy for agriculture and fisheries *Technical assistance with the laying out and publishing of the Vanuatu Fisheries Regulations *Funding of one participant to vulnerability and adaptation of coastal fisheries to climate change workshop in Noumea *Technical assistance with the planning for specific publications: fish posters and fisheries regulations Participation in the JCS discussions as the coastal fisheries programme representative Technical assistance with the recovery of data from a crashed server *2 participants funded to subregional workshop on CITES non-detrimental findings in Honiara Technical assistance with framework for a productive sector strategy Attendance at stock assessment/ERA workshop Setup new server and TUFMAN v6 in Vanuatu / training Processing of domestic and foreign licensed tuna fisheries data Support of national tuna database system 	<p>5</p> <p>Nil</p> <p>5</p> <p>5</p> <p>5</p> <p>5</p> <p>5</p> <p>5</p> <p>1</p> <p>Nil</p> <p>4</p> <p>3</p> <p>5</p> <p>0.3</p> <p>24.6</p>	<p>254,600</p> <p>115,200</p> <p>127,940</p> <p>150,000</p> <p>123,600</p> <p>130,000</p> <p>143,000</p> <p>Nil</p> <p>513,000</p> <p>100,000</p> <p>250,000</p> <p>149,800</p> <p>113,500</p> <p>Nil</p>

Country	Activities for 2010 (completed (January to August inclusive) and planned (September to December) (* indicates activities covered by JCS)	Staff time, work days	Non-staff costs (CFP)
	<p>Planned</p> <ul style="list-style-type: none"> • *Technical assistance with improvement of clownfish aquarium systems and fish husbandry methods • *Printing of two fish posters and shipping costs • *Printing of new Fisheries Regulations and shipping costs • *Hire of facilities, vessels and purchase of equipment for regional fisheries officers course, Santo, Vanuatu • *2 participants funded to attend the SPC practical safety and fishing course for fisheries officers in Santo, Vanuatu • *2 participants funded to regional workshop on community-bases fisheries management at SPC Noumea • Provision of in-meeting support at WCPFC SC and WCPFC Annual Session • Attendance at Tuna Data Workshop • Attendance at Regional Observer Coordinators Workshop • Assistance with national tuna data coordination 	<p>6</p> <p>5</p> <p>15</p> <p>Nil</p> <p>Nil</p> <p>Nil</p> <p>3.7</p> <p>2</p> <p>30</p> <p>10</p>	<p>200,000</p> <p>400,000</p> <p>200,000</p> <p>2,000,000</p> <p>107,000</p> <p>400,000</p> <p>55,600</p> <p>20,400</p> <p>1,144,400</p> <p>30,000</p>
<p>Wallis and Futuna</p> <p>JCS: 2009–2013</p>	<p>Completed</p> <ul style="list-style-type: none"> • 1 participant funded to be part of steering committee meetings for the future of fisheries study • * Attendance at Tuna Data Workshop <p>Planned</p> <ul style="list-style-type: none"> • *Assistance with printing sea safety checklist in Wallisian and Futuna languages • *1 participant funded to attend the SPC practical safety and fishing course for fisheries officers in Santo, Vanuatu • *2 participants funded to regional workshop on community-bases fisheries management at SPC Noumea • Provision of in-meeting support at WCPFC SC and WCPFC Annual Session 	<p>Nil</p> <p>2</p> <p>6</p> <p>Nil</p> <p>Nil</p> <p>3.7</p>	<p>141,000</p> <p>245,400</p> <p>250,000</p> <p>222,000</p> <p>450,000</p> <p>55,600</p>

Annex 4

Progress against strategic plan objectives

DIRECTOR'S OFFICE

Objective 1: To develop and sustain effective relationships between the division and its stakeholders

Results	2010 activities	Status
1.1: Programme plans and activities that respond to the needs and priorities of members	<ol style="list-style-type: none"> 1. Mini Heads of Fisheries meeting is held in Honiara in May, with discussion of work programmes 2. 2010 work programmes completed by March, with >80% implementation of activities during the year 3. Effective participation in 5 JCS missions; JCS reports used as basis for activity planning in 2010 4. Regular visits to member Fisheries Departments for consultations; meet with all heads of fisheries on fringes of regional meetings; regular email communications 5. Future of Fisheries study (including meeting with member representatives) completed and report presented to Forum Leaders 6. Review of Pacific Islands Regional Ocean Policy (PIROP) initiated during the year after Forum Leaders' endorsement 7. Ensure that Divisional reporting requirements – to CRGA, donors and others – are met 	<ol style="list-style-type: none"> 1. Completed with some important new work priorities identified 2. Programme plan completed – on target for achievement 3. FAME staff participated in JCS missions to Guam, Vanuatu, Fiji Islands – New Caledonia, PNG planned for later this year 4. Visits to Solomon Islands, Vanuatu, PNG; covered 4 regional meetings of senior fisheries staff 5. Study completed, with high level endorsement 6. PIROP review coordinated by Marine Sector Working Group and presented to PPAC 7. Ongoing – on track
1.2: Effective working relationships maintained with other regional agencies and development partners	<ol style="list-style-type: none"> 1. FFA/SPC technical meeting and colloquium successfully completed, with follow-up actions undertaken 2. SPC/IRD memorandum of understanding is renewed and projects to utilise ProcFish data are agreed 3. Marine Sector Working Group (MSWG) meets twice during the year and develops submissions to CROP heads and/or Forum 4. AusAID food security project approved by end of June 5. SciCOFish and DevFish 2 contribution agreements are signed before end of April 6. GTZ project and/or new AusAID International Climate Change Adaptation Initiative (ICCAI) programme include marine resources components 7. Fisheries issues are addressed in regional food security summit and strategy 	<ol style="list-style-type: none"> 1. Productive meeting held with agreement on work priorities, and a new joint funding proposal for observer support 2. Final draft memorandum of understanding agreed; project using ProcFish data in progress 3. 2 meetings held and Framework for Oceanscape Initiative completed and commended by Forum Leaders 4. Food security project passed peer review but final agreement delayed 5. SciCoFish on track, DevFish Contributions Agreement still pending 6. Climate change monitoring project approved; GTZ design includes marine resources subject to final endorsement 7. Adequate treatment of fisheries in food security summit

	<p>8. Appropriate funding mechanisms are developed/approved to continue key activities of CRISP project</p> <p>9. ETM system introduced and functioning for improved reporting on activities and training</p>	<p>8. Concept note to FFEM approved; EDF10 projects still at design stage</p> <p>9. ETM introduced to coastal fisheries programme and working</p>
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Objective 2: To promote informed policy decisions and public awareness of marine resource issues in the Pacific

Results	2010 activities	Status
<p>2.1: Policy-makers and the general public are better informed of marine resource issues, the importance of fisheries and the need for management action</p>	<ol style="list-style-type: none"> 1. At least 2 awareness, scientific, technical or training materials related to regional fishery policies or marine resource issues are designed and distributed throughout the region 2. Awareness materials or policy-related documents are designed and produced for at least 3 countries or territories 3. All FAME-produced documents are made available to the general public on SPC website 4. FAME and CFP websites are reviewed, redesigned and reorganised to provide a more user-friendly access to the information available 5. Regional media are regularly informed of regional marine resource issues, and FAME activities and outputs, through the provision of press releases or articles for the newspapers 	<ol style="list-style-type: none"> 1. Future of Fisheries reports ready for distribution; policy brief on FADs planned 2. Fish posters and regulations for Vanuatu; work for Solomon Islands and Samoa under discussion 3. Key documents already available, transfer of documents to new website continues 4. New websites are up and running; OFP site nearing completion 5. Various press releases and radio interviews provided on aquaculture and oceanic fisheries issues
<p>2.2: Stakeholders in PICTs are fully informed of the results of SPC activities, and shared experience and knowledge across the region</p>	<ol style="list-style-type: none"> 1. 3 issues of the <i>SPC Fisheries Newsletter</i> are published in English and French 2. 6 issues of SPC's special interest group information bulletins, related to important marine resource issues, are published in French and English 3. An updated version of <i>SPC Fisheries Address Book</i>, which gives access to more than 1200 regional fishery-related contacts, is produced and distributed; an updated fully-searchable digital library with all FAME publications available in digital format is produced on a DVD, which is distributed throughout the region, and on SPC's website 4. Results of SPC activities are documented in various media, such as the SPC website and the <i>SPC Fisheries Newsletter</i> 5. Effectiveness of the distribution of SPC's fisheries-related publications throughout the region is reviewed and measures are taken to ameliorate stakeholders' access to these materials 	<ol style="list-style-type: none"> 1. 2 completed, 1 in progress 2. All 6 to be completed by year end 3. All completed 4. Website regularly updated with SPC activities; newsletter likewise 5. Study carried out in 1 country as an example (Fiji Islands) and plans developed to improve distribution

COASTAL FISHERIES PROGRAMME OBJECTIVES AND OUTPUTS

Objective 1: To assist governments and administrations in the development of scientifically informed and socially achievable coastal fisheries management policies and systems in line with guiding principles of the Apia Policy

Results	2010 Activities	Status
<p>1.1: Assessment of the status of national coastal living marine resource user groups, impact on resource, existing impact management systems, and the current status of the resources themselves, in order to inform management</p>	<ol style="list-style-type: none"> 1. Training provided in appropriate methodologies and assistance in assessment of aquarium/live reef fisheries provided to 2 countries 2. Assistance provided to 3 countries in developing and implementing standardised coastal fisheries monitoring protocols and databases 3. Training provided in coastal fisheries data analysis for 2 countries 4. Regional data repository maintained and national data provided for backup from at least 3 countries/fisheries 5. Monitoring and data needs identified and assessments completed for finfish fisheries in 3 countries 6. Invertebrate resources assessment provided for at least 2 countries 7. Develop database modules for market/creel surveys 8. At least 1 subregional workshop covering monitoring protocols, data collection and analysis 9. Underwater visual census methodology manual produced and disseminated to member countries 10. Invertebrate methodology manual produced and disseminated to member countries 11. Reports on all resource assessment available to countries within 1 month of providing technical assistance 	<ol style="list-style-type: none"> 1. Training provided in Pohnpei, FSM, including trainees from other States and Kiribati 2. Activity deferred to 2011 due to late start of SciCOFish project and the recruitment of staff, and the need to refine monitoring protocols with other organisations and NGOs 3. Training provided to Kiribati for analysis of aquarium fish data and to FSM for photo quadrat data of corals 4. Regional database maintained with data received from FSM for photo quadrats; no other data received 5. Data needs identified through JCS's for Marshall Islands, Samoa and Vanuatu, with assessment work to start in late 2010 6. Invertebrate assessment assistance planned for Tonga in later 2010 and advice provided to Niue 7. Databases for market and creel surveys deferred to 2011 8. Activity deferred to 2011 due to late start of SciCOFish project 9. Activity deferred to 2011 to be able to include outcomes from regional workshop on community-based and monitoring 10. Activity deferred to 2011 to be able to include outcomes from regional workshop on community-based and monitoring 11. Reports to be provided as scheduled

<p>1.2: Assistance to members, in partnership with other stakeholders, in developing an appropriate mix of community-based approaches and national management arrangements, incorporation of ecosystem-based principles, and the review of coastal fisheries legislation</p>	<ol style="list-style-type: none"> 1. Marine aquarium/live reef fisheries policy/management framework completed in at least 2 countries 2. At least 5 countries receive capacity building and provided with assistance in reviewing/developing CBFM incorporating EAF principles 3. Assistance provided to at least 3 countries to develop species specific management plans or resources profiles 4. Assistance provided to at least 3 countries for the coastal component of legislation reviews/development 5. National legislation ready for endorsement in 1 country (this is a multi-year process) 6. Under coastal component of SciCoFish, assess monitoring, assessment and management needs in all 14 Pacific ACP countries 7. Regional workshop with NGOs is held, with discussions on assessing and standardising monitoring methods, data collection, identifying forms of data suited for management requirements 8. Establish stronger collaborative working partnerships with NGOs working towards similar goals/objectives 	<ol style="list-style-type: none"> 1. Framework and stakeholder consultations completed in Nauru and Kiribati, Kiribati 2. CEAFM capacity building and assistance undertaken in American Samoa, Pohnpei (FSM), Kiribati, Marshall Islands and Samoa 3. Assistance provided to Cook Islands (bonefish management plan) Kiribati (bonefish management plan) and FSM (trochus plan) 4. Assistance provided to Samoa, Tuvalu and Fiji Islands (aquaculture decree) and planned for Solomon Islands and Fiji (inshore) 5. Assistance provided to Tuvalu in collaboration with FFA, with draft legislation nearing completion; legislation for Samoa with Attorney General's office 6. Activity changed with JCS priorities used to start and assessments of countries to be staggered over 2011 and 2012 7. Major regional workshop planned for late November to bring together main organisations and NGO involved with community-based management and monitoring 8. Relationships and partnerships strengthened with NGOs through participation at nature conservation roundtable
<p>1.3: Practical assistance to members in the designing and targeting of appropriate awareness raising and educational information</p>	<ol style="list-style-type: none"> 1. Training provided to at least 2 countries to develop and disseminate fisheries information 2. Fisheries website development training provided for at least 1 country 3. Coastal fisheries posters revise/developed for at least 2 countries 	<ol style="list-style-type: none"> 1. Attachment training provided to 1 Cook Islands and 1 Fiji Fisheries Officer in desktop publishing (design and layout) 2. Activity deferred to 2011 3. 2 posters are planned for revision for Vanuatu

Objective 2: To provide a regional framework for sustainable aquaculture, in the areas of planning, research, development and trade, for Pacific Island governments, private enterprises and other stakeholders

Results	2010 activities	Status
<p>2.1: Improved regional and national capacity for strategic policy, planning and administration to establish clear priorities and enable the aquaculture sector to meet current and future needs, with the guidance of the SPC aquaculture action plan 2007</p>	<ol style="list-style-type: none"> 1. Aquaculture Planning Workshop in 2 countries 2. Participate in 2 JCS, programme missions 3. Aquaculture commodity development plans published for 3 countries 4. Independent consultant economist to review aquaculture/mariculture 5. Impact and adaptation of aquaculture to climate change chapter completed 6. Participation in climate change conference, Japan and ACIAR/WFC project for inland tilapia food security 7. PNG program mission food security 8. Assist and review PNG fish pond farmer census 9. Key organizers for Tahiti Aquaculture Conference, Tahiti 10. Seek FAO funds for PICTs to participate in FAO Global Aquaculture Conference, Thailand and attend as panellist 11. Regional review of aquaculture statistics published 12. Participate FAO statistics party (CWP), Australia 13. Organise CITES Regional Workshop, Honiara 14. Organise SPC Regional shrimp Workshop, Noumea 15. Participate in Australasian Aquaculture Conference, Australia 16. Aquaculture Portal updated with statistics and market notices 	<ol style="list-style-type: none"> 1. Planning workshop held in CNMI 2. Participation in Fiji Islands and Guam JCS missions 3. Plans underway for Wallis and Futuna, Tonga and CNMI; should be completed by the end of the year 4. Activity deferred to late 2010 or early 2011 as a result of staffing and funding issues; participated in FAO study 5. Chapter drafted and will be completed by the end of 2010 6. Conference attended and paper presented at Japan meeting; attended consultation on WorldFish tilapia project 7. Activity may be undertaken as part of JCS mission in late 2010 or deferred to 2011 8. Activity deferred to 2011 due to staffing issues in section 9. Organisation of Tahiti conference on track 10. Funding sourced from FAO for Global Aquaculture conferences for 5 PICTs with partial funding assistance from SPC 11. Review of aquaculture statistics published 12. Attended FAO statistics meeting as scheduled 13. Organised and participated in Honiara CITES workshop in collaboration with CITES secretariat and SPREP 14. Workshop organised but will now form part of the Tahiti Aquaculture Conference 15. Attended and participated at workshop 16. Aquaculture portal regularly updated with market notices and other information, publications etc.

<p>2.2: Increased skills and knowledge base in the SPC region and its member countries and territories, so as to maximise the return on investments in aquaculture through innovative, profitable and sustainable approaches</p>	<ol style="list-style-type: none"> 1. Field and desktop review of marine shrimp industry presented to SPC regional shrimp workshop 2. Report for FAO global seaweed socio-economic review (Solomon Islands case study) submitted 3. Mini-project: 13 projects implemented across 6 countries 4. Visit to assist ornamental fish industry on Christmas Island 5. Post larval capture trials for ornamental trade in FSM 6. Programming mission to Cook Islands pearl industry 7. Proceedings of tilapia expert consultation published 8. Assist Samoa Fisheries with tilapia broodstock introduction and post-tsunami recovery 9. Assist lobster and scallop culture trials, New Caledonia 10. Support to all current mini-projects (12) including those being supervised by James Cook University and USP directy 11. Support or supervision by section staff of ACIAR Mini-Project related MSc students (5 current, 3 pending) and PhD (1 current) 12. Ongoing project formulation support for EDF10 project for small and medium enterprises 13. Participate in regional JICA training course (mariculture diversification), Okinawa 14. Submit joint project (IFREMER – French Research Institute for Exploitation of the Sea) for aquaculture feeds from tuna fish meal in Fiji Islands, PNG 15. Review status of freshwater fisheries and opportunities for culture based fisheries 16. Support invertebrate (trochus, giant clam, sea cucumber) restocking initiatives 	<ol style="list-style-type: none"> 1. Consultant hired to do the review with results planned for presentation at workshop in December 2. Fieldwork conducted in 2009 with final report provided in early 2010 as scheduled 3. All mini-projects are progressing well in the 6 countries (Kiribati, Samoa, Vanuatu, Solomon Islands, Tonga and Fiji Islands) 4. Activity completed 5. Activity completed 6. Activity deferred to 2011 7. Proceedings will be drafted by the end of 2010 8. Main activity completed in late 2009 with 1000 GIFT sent from Fiji Islands, with some follow-up undertaken in 2010 9. Main activity completed with some ongoing inputs 10. Ongoing support provided for all mini-projects 11. Ongoing support and supervision is being provided to the Masters students and PhD student 12. Formulation support provided to meet all deadlines 13. Activity has changed and now the JICA training will occur in Fiji Islands in October with assistance planned 14. IFREMER taking the lead on this with some input by SPC, but little progress to date 15. Activity deferred to 2011 16. Collaborating with JCU and ACIAR on Fiji Islands sandfish hatchery work and re-stocking, plus organising an international symposium on sea cucumber re-stocking for early 2011
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<p>2.3: Competent authorities established and/or supported, using science-based approaches to manage aquatic biosecurity risks and to facilitate trade</p>	<ol style="list-style-type: none"> 1. Provide desktop advise on introductions as needed 2. Assist Solomon Is introduction of Nile tilapia 3. Assist Kiribati sea cucumber introduction 4. Organise regional training workshop for OIE disease reporting for key PICTs exporting live aquatics to the EU 5. Scoping for private sector trade study tour 6. Trade statistics published in regional aquaculture review 7. Aquaculture portal is updated with trade statistics (official and provisional) 	<ol style="list-style-type: none"> 1. This is an ongoing activity 2. Assistance being provided to undertake a risk assessment of a possible introduction of the GIFT through a consultancy 3. Mini-project undertaken and completed in Kiribati 4. Regional workshop arranged jointly with CITES and SPREP and held in Solomon Islands 5. A tour was undertaken in 2009, with no tour scheduled for 2010 6. Publication produced with aquaculture statistics for the Pacific 7. Web portal regularly updated with statistics as they come to hand
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Objective 3: To develop sustainable nearshore fisheries in PICTs to provide food security, livelihoods and economic growth

Results	2010 activities	Status
<p>3.1: Subsistence, artisanal, sport and industrial fishing activities within the sustainable production level of the available fisheries resources</p>	<ol style="list-style-type: none"> 1. Officer responsible for the DevFish-2 project is recruited and project is started 2. An HRD plan for the fisheries sector is produced/updated in at least 1 country 3. A Tuna Fisheries Development Plan is produced/updated in collaboration with FFA, in at least 1 country 4. The Action Plan for sport-fishing development in Cook Islands is fully implemented and at least 2 local guides operate sustainably 5. A feasibility study for sport-fishing development is conducted in at least 1 other PICT 6. A giant trevally tagging project is ongoing in New Caledonia 7. A small-scale pole-and-line fishing project is started in the Solomon Islands, in collaboration with FFA, with technical and training inputs from the Nearshore Fisheries Development Section (NFDS) including an assessment of community-based bait fishing to supply fishing operations 8. A pilot project is implemented in New Caledonia to test tilapia as bait for tuna longlining 9. Funding is secured for a major FAD conference in 2011 10. NFDS Web portal is up and running 	<ol style="list-style-type: none"> 1. Recruitment process undertaken in July, no appointment possible until Contribution Agreement signed, planned for late 2010 2. Review of HRD plan for Nauru tentatively planned for late in 2010 3. Input provided to the Tokelau tuna fishery development plan in collaboration with FFA and an FFA-funded consultant 4. Action plan fully implemented for the Aitutaki bonefish fishery with 7 prospective guides trained and 2 sustainable operations 5. Activity possibly deferred to 2011 6. Project is ongoing; over 200 fish tagged so far 7. Timing of project is dependent on arrangements made by FFA as this is a collaborative activity; possibly deferred to 2011 8. Planned for late in 2010 9. Funding secured for the FAD conference in 2011 10. NFDS Web portal operational and being maintained

<p>3.2: Resource materials, advice and training in appropriate fishing techniques and technologies</p>	<ol style="list-style-type: none"> 1. FAD projects are implemented with extensive capacity-building in at least 3 PICTs and advice/technical assistance is provided to a minimum of 5 other PICTs 2. FAD fishing workshops are conducted with parallel training of counterparts in at least 3 PICTs 3. Hook standardisation projects are conducted in at least 2 PICTs 4. NFDS remains active on the bycatch mitigation front with ongoing awareness-raising in PICTs and inputs to regional initiatives 5. Small boat safety training is conducted with parallel counterpart training in at least 3 PICTs 6. Collaboration on sea safety issues with FAO and other regional/international organisations is ongoing 7. At least 1 regional fisheries course or workshop is organised and implemented 8. Vernacular versions of the SPC small boat safety checklists are produced in at least 2 PICTs 9. 1 Sea Safety information bulletin is produced in both English and French 10. A set of guidelines for the safe handling and release of inshore sport-fishing fish species is produced 11. A technical manual on small-scale bait fishing methods is produced 12. A brochure on satellite imagery for fish finding is produced 13. Advice is given on the development of a fisheries curriculum for vocational training in at least 1 PICT 	<ol style="list-style-type: none"> 1. FAD project technical assistance and capacity building provided to Samoa, Pohnpei (FSM), Kiribati, Marshall Islands, and planned for Nauru and Tuvalu 2. FAD fishing skills workshops planned for Kiribati and Marshall Islands, with French Polynesia deferred to 2011 at their request 3. Hook exchange projects undertaken in New Caledonia (north province) and American Samoa 4. Attendance at international bycatch reduction workshop (coral triangle fishers' forum) and regional false killer whale take reduction meeting; upgrading and printing of 2,000 turtle ID cards 5. Sea safety training planned for Nauru, Kiribati, Tuvalu and Marshall Islands as part of FAD assistance work 6. Attendance at FAO international workshop on sea safety for small boats 7. Regional practical safety and fishing course for fisheries officers in Santo, Vanuatu planned; 12 participants from 10 countries 8. Sea safety checklist in local languages in French Polynesia and planned for Wallis and Futuna 9. Bulletins produced as scheduled 10. Guidelines are being drafted for printing in late 2010 11. Manual completed and will be printed in late 2010 12. Materials for brochure collected with printing scheduled for late in 2010 13. Activity deferred to 2011
<p>3.3: Optimum benefits from the resource through improved seafood quality standards and value-adding</p>	<ol style="list-style-type: none"> 1. Training in onboard catch handling is provided to local fishers in at least 3 PICTs 2. A tuna grading workshop is organised and conducted in at least 1 PICT 3. Assistance and/or training in the area of Competent Authorities and seafood safety standards is started as part of the DevFish-2 project 4. Technical assistance and/or advice on the utilisation of fish offal to produce fish silage is provided to at least 3 PICTs 	<ol style="list-style-type: none"> 1. Training will be conducted in Kiribati, Marshall Islands and French Polynesia as part of FAD assistance work 2. Tentatively planned for late 2010 in French Polynesia 3. Activity deferred to 2011 because contribution agreement for DEVFISH project not signed until late 2010 4. Advice on fish silage has been provided to New Caledonia, Niue and French Polynesia

OCEANIC FISHERIES PROGRAMME OBJECTIVES AND OUTPUTS

Objective 1: To provide high-quality scientific information and advice for regional and national fisheries management authorities on the status of, and fishery impacts on, stocks targeted or otherwise impacted by regional oceanic fisheries

Results	2010 activities	Status
<p>1.1: Regional oceanic fisheries management policy and decision-making by WCPFC are informed by the best science-based stock assessments and advice</p>	<ol style="list-style-type: none"> 1. Undertake stock assessments for target and non-target species as requested by the commission, including exploration of sensitivity of stock assessment outcomes to structural assumptions in models and data issues, including the comparison of various stock assessment models (bigeye and skipjack in 2010; SC working papers) 2. Host Stock Assessment preparatory workshop (SC information paper) 3. Post input and output files for key model runs on the OFP website 4. Publish Tuna Fishery Assessment Report (TFAR) following 2010 assessments 5. Undertake analyses of longline catch and effort data, and data for other fishing gear types where appropriate, including, where appropriate and possible, operational-level data to construct indices of stock target and non-target species (bigeye, yellowfin, and skipjack in 2010; SC working papers) 6. Manage, develop and further refine the stock assessment model, MULTIFAN-CL and associated visualisation software and networking software, including simulation testing of new developments as appropriate and refinement of models for catch per unit effort (CPUE) standardisation (SC information paper) 7. Update stock assessment modelling software and documentation posted on the MULTIFAN-CL website www.multifan-cl.org 8. Given adequate data, assess the effectiveness of Conservation and Management Measure (CMM)-2009-04, including any alternative measures for the management of shark stocks in the convention area, as appropriate (WCPFC paper) 	<ol style="list-style-type: none"> 1. Completed; assessments provided for bigeye and skipjack tuna, as requested by the Commission (SC papers SA-WP-01, SA-WP-04, and SA-WP-11), including investigation of sensitivity to assumptions about model structure and data 2. Completed; workshop hosted 6-10 April 2010 (SC paper SA-IP-01) 3. Completed: Files posted on OFP website, August 2010 4. <i>Planned</i>: TFAR under development following 2010 assessments 5. Completed: Analyses of longline (for bigeye and yellowfin) and pole and line (for skipjack) catch and effort data carried out and results used in 2010 stock assessments (SC working papers SA-WP-02, SA-WP-03, SA-WP-08, and SA-WP-09) 6. Completed: Multifan-CL further developed, including simulation testing of new developments (SC papers ME-WP-01, MI-WP-01) 7. Completed: Updated stock assessment software posted on website in August 2010 8. Assessment of CMM-2009-04 effectiveness has not been requested by WCPFC, and it may not be possible for SPC to assess it due to lack of adequate data

	<ol style="list-style-type: none"> 9. Provide preliminary advice on the stock status of key shark species and a three-year shark research plan for 2011-2013 (SC progress report and WCPFC paper) 10. Provide available data, information, and advice for evaluating the impact of, and compliance with, the various provisions of CMM-2008-01 [BET and YFT] (SC, Technical and Compliance Committee [TCC], and WCPFC papers) 11. Conduct analyses to support the development of conservation and management measures (SC, TCC, and WCPFC papers) 12. Review the spatio-temporal aspects of catches of juvenile bigeye and yellowfin tuna caught in association with FADs (SC, TCC, and WCPFC papers) 13. Evaluate management options as specified by WCPFC, or from CMMs communicated through the Executive Director (SC, TCC, and WCPFC papers) 14. Further analyse purse-seine set times in the determination of set types (SC and TCC papers) 15. As requested, participate in assisting further discussion on independent review of the commission's science structure and functions, including advice on a peer review process of bigeye stock assessment, restructure of SC meetings, and any data related issues with the International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean (ISC) to address data gaps 16. Provide stock assessment and related information and advice to NGOs and other national or international fora, e.g. World Wildlife Fund, Western Pacific Regional Fishery Management Council, International Sustainable Seafood Foundation, etc. 17. Participate in relevant meetings, forums, as required 	<ol style="list-style-type: none"> 9. Part completed, part planned; shark research plan 2011–2013 prepared (SC paper EB-WP-01); preliminary assessment of key shark species will be presented at WCPFC 7 in December 2010 10. Part completed, part planned; CMM-2008-01 impact and compliance evaluated (SC papers SA-WP-05, MI WP-03); TCC and WCPFC papers planned 11. Part completed, part planned; analyses conducted to support development of CMMs (SC papers FT-IP-01, MI-WP-03, ST-IP-02); TCC and WCPFC papers planned 12. Part completed, part planned; review spatio-temporal aspects of catches of juvenile bigeye and yellowfin tuna caught in association with FADs (SC paper ST-IP-02) 13. Evaluation of management options subject to request for WCPFC 7 14. Further analyses of purse-seine set times postponed pending the availability of observer data 15. Ad hoc advice provided on request 16. Ad hoc advice provided on request 17. Participate in relevant meetings undertaken as required and time permitting
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<p>1.2: FFA’s oceanic fisheries management initiatives are supported by the best science-based stock assessments and advice</p>	<ol style="list-style-type: none"> 1. Conduct technical analyses to support the development of a Longline Vessel Days Scheme (LL-VDS) for PNA 2. Characterise fishing effort in relation to Conservation and Management Measures 3. Provide continued support for Purse Seine Vessel Days Scheme requirements 4. Conduct economic optimisations of within-zone tuna management plans for selected members of the Southern Tuna and Billfish Committee 5. Generate inputs and associated technical support for bio-economic modelling 6. Provide analyses of the impacts of current or potential WCPFC management measures 7. Conduct fishery characterisations as requested 8. Provide papers and presentations to FFC, its relevant subcommittees (e.g. PNA and/or South Pacific Tuna and Billfish Fisheries [SPTBF]), the Management Options Workshop, and subregional workshops as required 9. Participate with the FFA Secretariat in the development of a new GEF-funded Oceanic Fisheries Management Project 	<ol style="list-style-type: none"> 1. A design for party allowable effort allocations based upon vessel size-specific catch rates was presented to PNA28 and 29, with follow-up presentations given to the LL-VDS Technical Working Group 2. Papers and presentations were provided to the FFC subcommittee (SPTBF), for characterising fishing effort in relation to CMMs for swordfish and striped marlin 3. Data summaries of purse seine catch and effort provided to PNA consultant for consideration by the PNA VDS Subcommittee 4. Progress on a study that characterises albacore CPUE and will evaluate within-zone longline fishery management strategies was presented to the FFC subcommittee (SPTBF) 5. Planned 6. A working paper that evaluates alternative management strategies for bigeye was presented to FFA Management Options Consultation (MOC) 7. Characterisations of the albacore and billfish fisheries were presented to FFA Subregional Management Options Workshops 8. Papers and presentations of the updated status of tuna stocks, and other relevant issues, were presented to FFA MOC, Sub-regional Management Options Workshops, and Sub-Committee (SPTBF), and to associated sub-regional arrangements (PNA, TVM)
<p>1.3: National tuna oceanic fisheries policy and decision-making are informed by the best science-based stock assessments and advice</p>	<ol style="list-style-type: none"> 1. Complete NTFSRs for Cook Islands, Fiji Islands, Kiribati, Marshall Islands, Samoa, Solomon Islands, Tokelau, and Tuvalu 2. Improve integration within the FFA/SPC EAFM work programme 	<ol style="list-style-type: none"> 1. Draft reports being finalised for Marshall Islands, Samoa, Tokelau and Kiribati; other reports in progress or soon to be initiated include Tuvalu, Cook Islands and Solomon Islands; no official request received from Fiji Islands yet 2. SPC-FFA colloquium improved integration of EAFM work programme

	<ol style="list-style-type: none"> 3. Provide scientific support to national scoping and stakeholder workshops for the implementation of EAFM or revision of tuna management plans, including the delivery of relevant information from the NTFSRs 4. Provide draft overview of fisheries and stock status for inclusion in FFA EAFM final reports, including providing review/comments of the draft EAFM reports prior to finalisation 5. Respond to ad hoc requests for information and advice from national fisheries administrations 	<ol style="list-style-type: none"> 3. Scientific support provided to national stakeholder workshops in Tokelau in April and September; expect requests for advice to consultations from Fiji and Solomon Islands and Cook Islands for October, November 2010 4. Reviews of draft EAFM reports and tuna management plans provided for Samoa, Tokelau, Niue and Tuvalu 5. Ad-hoc advice provided to Kiribati and Niue
<p>1.4: Enhanced capacity of SPC members to interpret stock assessment information and advice</p>	<ol style="list-style-type: none"> 1. Provide summary reports of stock assessment results to PICTs at relevant fora, e.g. Heads of Fisheries, FFC, FFA Science Working Group, Management Options Workshops, etc. 2. Hold 2 regional one-week stock assessment workshops and (when possible) other opportunistic in-country stock assessment workshops 3. Continue to develop material for workshops to increase understanding of fisheries stock assessments and their management implications, with a focus on western and central Pacific Ocean tuna assessments in particular 4. Investigate potential transfer of materials to accredited courses (e.g. at USP) 5. Hold discussion at Heads of Fisheries meeting to determine PICT preferences for the long-term future of the workshops/courses 6. Continue to develop remote learning initiatives, dependant on participation levels 7. Help to prepare and present scientific briefs to preparatory meetings of PICTs for WCPFC 8. Host attachments of national technical staff to participate in regional stock assessment work and preparation of NTFSRs 	<ol style="list-style-type: none"> 1. Papers and presentations were made to FFC, its relevant subcommittees (e.g. PNA and/or SPTBF), the Management Options Workshop, and subregional workshops 2. 2 regional one-week stock assessment workshops were held between 5 and 21 June 2010 involving 24 participants from SPC member countries and territories 3. A short one-day refresher workshop was held for PICT participants to the Pre-Assessment Workshop in April 2010 4. Workshops included newly developed materials to ensure participants were provided the most up to date information on the regional tuna stock assessments and the associated CMM evaluations undertaken by OFP 5. Strong support was provided by PICTs at the Heads of Fisheries meeting for the continuation of the Stock Assessment Workshops 6. Remote learning initiative continued, with 60% of the 2009 participants partaking in online revision exercises prior to the 2010 workshop 7. Support was provided at the FFA Science Working Group (preceding WCPFC-SC) by providing an overview of the updated tuna assessments, and assistance given in preparing scientific briefs and talking points 8. National level attachment from Tokelau was hosted by SPC during the preparation of the Tokelau NTFSR

Objective 2: To collect and analyse accurate and comprehensive scientific data for regional and national fisheries management authorities targeting the region’s resources of tuna billfish and other oceanic species

<p>2.1: WCPFC is provided with efficient and cost-effective data management services to support regional oceanic fisheries management</p>	<ol style="list-style-type: none"> 1. Incorporate data provided by commission members under the commission’s data provision policy (e.g. annual catch estimates, operational-level logsheet data, size data, etc.) into existing databases and facilitate access of commission secretariat staff to those data as appropriate 2. Process observer data on behalf of the commission’s Regional Observer Programme 3. Determine the status of the provision of scientific data to the commission 4. Compile estimates of catch and effort in support of the functions of the commission and its subsidiary bodies 5. Compile estimates of annual catches by vessel flag, EEZ, archipelagic waters, and IATTC/WCPFC overlap area for use in determining the catch component of the commission’s assessed contributions 6. For catches for which estimates are not otherwise available, conduct statistical analyses to estimate catches, particularly with regard to purse-seine catches of bigeye tuna, discards of target tuna species, and catches of non-target species 7. Produce and publish on the commission’s website the Tuna Fishery Yearbook, containing annual catch estimates by gear type, flag and species 8. Disseminate public domain catch, effort and size data on the commission’s website at agreed level of resolution 	<ol style="list-style-type: none"> 1. Annual catch estimates compiled and presented to SC6; aggregate catch/effort and size data compiled and made available for WCPFC stock assessments in June 2010 2. 4 Regional Observer Programme data entry staff employed to enter pProgramme data provided to the WCPFC Secretariat on a six-monthly basis 3. Completed (WCPFC SC paper – SC6-ST SWG WP-1 ‘Scientific data available to the Western and Central Pacific Fisheries Commission’) 4. Completed (WCPFC Scientific Committee paper – SC6-ST SWG IP-1 ‘Estimates of Annual Catches in the WCPFC Statistical area’) 5. Provided to the WCPFC Secretariat in August 2010 6. Completed (WCPFC Scientific Committee paper – SC6-ST SWG WP-2 ‘Update on the estimation of selectivity bias based on paired spill and grab samples collected by observers on purse seiners in the Western and Central Pacific Ocean’) 7. 2009 WCPFC Tuna Fishery Yearbook planned for completion by the end of 2010 8. The 2009 public domain data will be made available on the WCPFC website in November 2010
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	<ol style="list-style-type: none"> 9. Provide ad hoc advice on science and data-related implications of relevant monitoring, control and surveillance (MCS) activities, including, but not limited to: transshipment, the regional observer programme, port sampling, vessel monitoring system (VMS), port state measures, and catch documentation schemes 10. Provide advice on data-related procedures of the commission, e.g. rules and procedures for the protection, access to and dissemination of non-public domain data and information compiled by the commission; and ‘Scientific Data to be Provided to the Commission’ 11. Release the datasets used in annual assessments, upon request, subject to the commission’s rules and procedures for the protection, access to and dissemination of data compiled by the commission 12. Provide support to coordination and collaboration on data-related matters between ISC and WCPF 13. Participate in GEF-West Pacific East Asia Oceanic Fisheries Management (WPEA OFM) Project 	<ol style="list-style-type: none"> 9. Ongoing – during 2010, most of the ad hoc advice provided to WCPFC was related to Regional Observer Programme data management and CMM 2008-01 and included representation at port sampling workshop in Tokyo 10. Various ad hoc advice, mainly in relation to data submissions, was provided to WCPFC members on behalf of the WCPFC Secretariat 11. 6 requests for WCPFC data were fulfilled during 2010 12. Completed – Preparation and provision of WCPFC Data Inventory for North Pacific Ocean to ISC; WCPFC Scientific Committee paper – SC6-ST SWG WP-3 ‘Progress report on the reconciliation of WCPFC and ISC data holdings’; Meeting between WCPFC and ISC data managers during SC6 13. Participated in the following activities: Annual Catch Estimates Workshop (Indonesia), Annual Catch Estimates Workshop (Philippines), Port Sampling Review Workshop (Philippines), National Tuna Data Collection Workshop (Vietnam); <i>Still to be done:</i> Port Sampling Review Workshop (Vietnam), Port Sampling Review Workshop (Indonesia)
<p>2.2: FFA’s oceanic fisheries management initiatives are supported by efficient and cost-effective data management services</p>	<ol style="list-style-type: none"> 1. Conduct regular exchanges of data as per the SPC-FFA memorandum of understanding 2. Provide data support for subregional arrangements, e.g. PNA VDS, US Multilateral Treaty 3. Provide data support for specific FFA work programmes in fisheries development, MCS and fisheries management 	<ol style="list-style-type: none"> 1. Data provided to FFA on a quarterly basis 2. 2 papers provided for Annual US Treaty Consultation; data and summaries for PNA VDS provided on a quarterly basis; ad hoc analyses have been conducted on request 3. Ad hoc analyses have been conducted on request

<p>2.3: Enhanced national oceanic fishery monitoring and data management by SPC members to meet national and international obligations</p>	<ol style="list-style-type: none"> 1. Provide regional coordination of national fishery monitoring and data management systems through the provision of a template for integrated national tuna fishery monitoring, data collection forms, computer software, newsletters and other information, and through a meeting of the SPC/FFA Data Collection Committee (DCC) 2. Develop or enhance national tuna fishery data management systems, such as TUFMAN 3. Develop or enhance national observer programmes 4. Develop or enhance national port sampling programmes 5. Develop procedures for the auditing of national tuna fishery monitoring 6. Provide technical support for the development of data collection from artisanal tuna fisheries 	<ol style="list-style-type: none"> 1. Planned <ul style="list-style-type: none"> - Work on DCC9 report continuing - Fork Length #9 - Fishery Monitoring information updated on OFP website 2. Comprehensive development undertaken with TUFMAN updated to version 6 and TUBs (observer data management system) to version 2; latest TUFMAN installed during visits to 7 countries during 2010; TUBs installed in 2 countries during 2010; updates to other systems (e.g. CES) also undertaken during 2010; CES provided to all countries, WCPFC and FFA on a quarterly basis 3. Meeting WCPFC new demand for five-fold in observer coverage; development of new purse-seine sampling techniques (spill sampling); NZ Aid Programme funds secured for increased positional support 4. Input to technical meeting to support purse-seine related port monitoring in WCPFC ports; port sampling audits (Tonga, Samoa, Vanuatu) 5. <i>Planned</i>: documentation to carry out national tuna audits 6. Artisanal tuna fishery component developed in TUFMAN: Regional Standard form for survey and sampling made available <i>Planned</i>: resource material for the collection of artisanal tuna fishery data
<p>2.4: Enhanced capacity of SPC members in fisheries monitoring, data management and data use</p>	<ol style="list-style-type: none"> 1. Provide ongoing support to National Tuna Data Coordinators, including follow-up of issues arising at the Tuna Data Workshop and further development of national tuna data procedures documents 2. Hold the annual Tuna Data Workshop to continue the enhancement of national tuna data management and fishery monitoring 	<ol style="list-style-type: none"> 1. Memorandums of understanding outlining funding and equipment support signed with Kiribati, Niue, Tuvalu and Palau: National Tuna Data Procedures developed through national TDWs (see below) 2. Regional and National Tuna Data Workshops (TDWs): Regional Tuna Data Workshop (April 2010); national TDWs in FSM, Solomon Islands and Nauru <i>Planned</i>: national TDWs in Kiribati, Samoa (2011), Tonga, Niue

	<ol style="list-style-type: none"> 3. Train national tuna fishery data management staff in the use of TUFMAN and other database and sampling programme management software 4. Hold up to 6 national and subregional observer training workshops, and an upgrade workshop 5. Provide training auditing services and support for at least 3 nationally run training workshops 6. Develop debriefing capacity through 2 debriefer certification strategy and operations workshops and on-the-job training/assessments 7. Hold a regional observer coordinator's workshop 8. Host up to 4 training attachments in fisheries monitoring and statistics at SPC headquarters 9. Develop standards for competency-based training of observers 	<ol style="list-style-type: none"> 3. Database training provided during 2010 included training during visits to 7 member countries, training sessions at the Tuna Data Workshop (April 2010), attachment training at SPC (4 trainees) <i>Planned:</i> training during visits to 2 member countries; attachment training at SPC (2 trainees) 4. Solomon Islands, FSM, Marshall Islands, Kiribati, PNG, Vanuatu 5. <i>Planned:</i> new Audit Officer recruited for this work, to start in December 6. Regional Observer Debriefing Strategy Workshop, Cairns (July) <i>Planned:</i> debriefer training and competence workshop Noumea (December), resource material and support for National Debriefing Workshop (PNG, September) 7. Regional observer coordinator's workshop held in Cairns, Australia (July) 8. Attachment training for 4 member country counterparts completed; attachment training for 2 more member country counterparts planned 9. <i>Planned:</i> consultant contract under development for ongoing work on standards concentrating on debriefing
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Objective 3: To improve understanding of pelagic ecosystems in the western and central Pacific Ocean

<p>3.1: Enhanced data on the biological characteristics of oceanic species and their environment are available to support stock assessment and ecosystem-based fisheries management</p>	<ol style="list-style-type: none"> 1. Tuna tagging campaigns implemented in the western and central Pacific for the provision of data for stock assessment 2. Analyses of skipjack and yellowfin conventional tag data to estimate advection and diffusion rates (movement ecology) and temporal changes in exploitation and FAD impacts 3. Estimation of horizontal movement of bigeye, yellowfin and skipjack from electronic tag data completed 	<ol style="list-style-type: none"> 1. 4th Central Pacific cruise completed and 5th cruise scheduled for completion in December; 2nd phase of albacore tagging completed in New Caledonia, New Zealand and Tonga; see WCPFC SC6 - GN-IP-04 and GN-IP-06 for results 2. Preliminary analysis of advection diffusion reaction rates before and after FAD deployment completed with little support from the data that advection diffusion reaction estimates have changed; analysis to be repeated again in 2011 when tag return and effort data more complete; see WCPFC SC6 - GN-IP-04 for results 3. Horizontal analysis of bigeye, yellowfin and skipjack horizontal movements completed for tag returned from western Pacific; see WCPFC SC6 - GN-IP-04 for results
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	<ol style="list-style-type: none"> 4. Tagging data included in 2010 skipjack regional tuna stock assessment and ecosystem models 5. Revised growth curves and maturity ogives estimated for albacore and bigeye 6. Trophic dynamics of the western and central Pacific pelagic ecosystem described 7. Analysis of FAD impacts on diet, isotope signatures and fat content 8. Workshop to evaluate the suitability of applying trophic-based indicators for detecting pelagic ecosystem change 9. Analysis of the association between seamounts and tuna catch published in the peer-reviewed literature 	<ol style="list-style-type: none"> 4. Utilised in assessments but not fully incorporated in model runs 5. Preliminary growth and maturity ogives estimated for bigeye and yellowfin; data collection to complete in December 2010 and analyses to be completed in 2011; see WCPFC SC6 - BI-WP-01 and BI-WP-03 for results 6. Laboratory analysis completed for spatial differences in trophic dynamics; database established allowing extraction of information at the regional and national scale 7. Analysis of FAD impacts on diet, isotope signatures and fat content scheduled for completion in December 2010; see WCPFC SC6 - EB-IP-10 for preliminary results 8. Workshop scheduled for February 2011 9. Seamount-tuna association accepted for publication in PlosOne (Morato et al.); seamount-biodiversity association published in Proceeding of the National Academy of Sciences (Morato et al. 2010)
<p>3.2: Appropriate ecosystem models and analyses are available to inform ecosystem-based fisheries management</p>	<ol style="list-style-type: none"> 1. Albacore-oceanography analysis completed 2. Climate change impacts on western and central Pacific tuna stocks completed 3. Review of oceanography effects on western and central Pacific tuna stocks completed 4. Effectiveness of MPA's as a management measure for tuna fisheries at the regional scale completed 5. EEZ scale applications of SEAPODYM for the assessment of exploitation 	<ol style="list-style-type: none"> 1. Albacore-oceanography relationships submitted for publication in Fisheries Oceanography 2. Climate change impacts on tuna stocks submitted for publication in Bell et al. <i>Vulnerability of fisheries and aquaculture in the Pacific to climate change</i> 3. Completed 4. Effectiveness of MPAs completed and manuscript in preparation for submission in 2011 5. Methods for EEZ scale applications of SEAPODYM completed (see WCPFC SC6 – EB-IP-02); EEZ zooms for New Caledonia, French Polynesia, PNG and Kiribati scheduled for completion in December 2010

<p>3.3: Regional oceanic fisheries policy and decision-making by WCPFC is informed by science-based information and advice on ecosystem issues</p>	<ol style="list-style-type: none"> 1. Implementation report of ERA completed 2. Species specific vulnerabilities included in Seabird ERA and high risk zones identified 3. CMM evaluation presented to WCPFC Scientific Committee as specified in 2010 WCPFC service agreement 	<ol style="list-style-type: none"> 1. See WCPFC SC6 – EB-WP-01 and EB-IP-08 2. See WCPFC SC6 – EB-IP-01 3. No evaluation of CMM specified in service agreement
<p>3.4: FFA's ecosystem-based fisheries management initiatives are supported by the best scientific information and advice</p>	<ol style="list-style-type: none"> 1. Technical support and advice provided as per 2010 SPC-FFA work agreement 	<ol style="list-style-type: none"> 1. No tasks specified in 2010
<p>3.5: Ecosystem-based management of oceanic fisheries by SPC members is supported by the best scientific information and advice</p>	<ol style="list-style-type: none"> 1. National-level ERAs prepared for inclusion in NTFSRs of Marshall Islands, Kiribati, Solomon Islands, Fiji Islands and ERA report for French Polynesia and New Caledonia 2. 2010 ERA workshop conducted in conjunction with Stock Assessment Workshop 3. National-level summaries of trophic structure and important habitats compiled for Marshall Islands, Kiribati, Solomon Islands, Fiji Islands, French Polynesia, New Caledonia 4. National level summaries of tuna and oceanographic effects prepared for inclusion in NTFSRs of Marshall Islands, Kiribati, Solomon Islands and Fiji Islands 5. Tuna Tagging Resource Profiles completed for PNG and Solomon Islands 	<ol style="list-style-type: none"> 1. ERA scheduled for completion in French Polynesia and New Caledonia in December 2010 Draft NTFSR analyses completed for Marshall Islands and Kiribati; Solomon Islands and Fiji Islands rescheduled for 2011 in line with new timeframe for NTFSR 2. ERA workshop completed (24 enrolled) 3. Draft NTFSR analyses completed for Marshall Islands and Kiribati; Solomon Islands and Fiji Islands rescheduled for 2011 in line with new timeframe for NTFSR Trophic and seamounts databases revised for national level reporting; summaries provided for Marshall Islands and Kiribati; Solomon Islands and Fiji Islands rescheduled for 2011 in line with new timeframe for NTFSR 4. Oceanographic analysis completed for Marshall Islands and Kiribati; Solomon Islands and Fiji Islands rescheduled for 2011 in line with new timeframe for NTFSR 5. Tagging profiles for PNG and Solomon Islands scheduled for completion in December 2010